

Jersey Household Income Distribution

2019/2020

Statistics Jersey: www.gov.je/statistics

Summary

Key statistics

- Mean household income was £1,040 per week before housing costs, and £890 per week after housing costs
 - There was a real-term increase of 9% (adjusted for inflation) in mean income after housing costs since 2014/2015; the nominal increase (without adjusting for inflation) was 24%
- Median equivalised household income was £790 per week before housing costs, and £690 per week after housing costs
 - There was a real-term increase of 9% in median income after housing costs since 2014/2015;
 the nominal increase was 23%
 - Median household income was 44% higher in Jersey than the UK
- After housing costs, 27% of households and 22% of individuals were living in relative low income (RLI), defined as household income below 60% of median income: £480 per week before housing costs, and £410 per week after housing costs
 - One in four (27%) households were in RLI, a higher proportion than the UK (22%)
 - One in five (22%) individuals were in RLI, the same proportion as the UK (22%)
 - One in four (25%) children were in RLI, a lower proportion than the UK (31%)
 - One in three (34%) pensioners were in RLI, twice the proportion of the UK (18%)
- Households living in rental accommodation (including the qualified, social, and non-qualified sectors) spent, on average, around a third (32%) of their income on housing costs – the same proportion as in 2014/2015

Key themes

- Since 2014/2015, mean and median household incomes have increased by more than inflation (as measured by the Retail Prices Index)
- The benefits and tax system improve income inequality; housing costs removes this improvement
- The proportions of households and individuals living in relative low income (RLI) are similar to those recorded in 2014/2015
- The mean household income after housing costs of those in the lowest quintile (lowest 20%) increased by 1% in real-terms over the last five years, and 14% in nominal terms. This compares with a 9% increase in real-terms for all households, and a 24% nominal increase.



Introduction and quality notice

This report presents information on the incomes of Jersey households from the 2019/2020 Living Costs and Household Income Survey. This was a large survey of Jersey households that started in July 2019 and was planned to run for over a year. The survey involved face-to-face interviews in people's homes; as a result, the survey had to be cut short in March 2020 due to covid-19 public health measures introduced at that time. Less than half of the expected response was achieved, which has constrained the statistics and analyses which can be produced for this report. Statistics for all households are reported, but due to the smaller sample size, breakdowns of these households by demographics such as tenure or household type would have a high degree of uncertainty.

While the reduced sample size resulted in acceptable coverage for the majority of the income distribution, the sample did not yield sufficient response detail in respect of very high incomes. This was apparent when compared to known population totals for certain classes of income (obtained from Government of Jersey income tax statistics). In particular, the levels of income recorded in respect of buy to let income and income derived from company profits were clearly underrepresented in the sample.

Whilst some of the limitations of the resultant sample can be corrected for using standard statistical techniques such as weighting and imputation, certain income inequality measures do require accurate measurement of the very upper end of the income distribution in order to be reliable. As a result, the sample does not allow us to robustly estimate measures such as the Gini coefficient or any comparisons that include the highest decile of income (such as the 90-10 shares and 90-10 ratios). Those measures that we are able to present will also be subject to some additional uncertainty as a result of the smaller than desired sample size.

The survey collected detailed information on all sources of income (including employment, pensions, and unearned income) and spending on housing costs (for example mortgage interest, rent, and parish rates), as well as demographic information on the make-up of the household. Using demographic information, the results were weighted to ensure they were representative of the Jersey population; details of the weighting and survey methodology can be found in the <u>appendix</u>. Mean averages were also adjusted to ensure they represented the unearned incomes of all households, specifically those of the very highest income households.

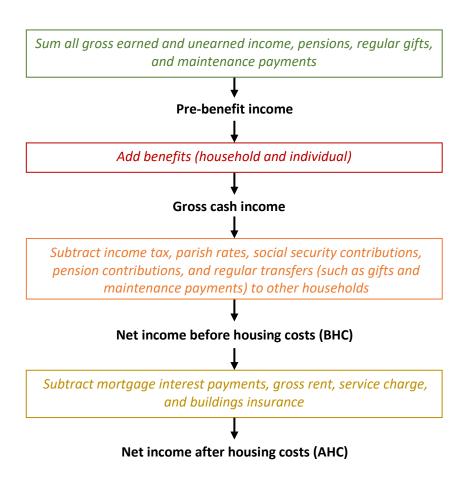


Analysis outline

Four stages of household income calculations are presented throughout this report – see <u>Figure 1.1</u>. Between each stage of analysis, components of income are included (e.g. pensions, benefits) and deductions are made (e.g. income tax, social security contributions).

Two key stages are "Net income before housing costs" (BHC) and "Net income after housing costs (AHC)".

Figure 1.1: Four main stages of household income



Mean household income

All households

<u>Table 1.1</u> shows the mean (average) household weekly income for all households in Jersey, for each stage of household income. The change in mean income in moving from one stage of income to the next is apparent¹.

¹ Throughout this section, which presents mean income figures, the income data was winsorised at 2.5%, and weekly figures are rounded to the nearest £10. In winsorisation, the incomes of the lowest 1.25% and the highest 1.25% of households are assigned to the value of the 1.25th percentile household, and the 98.75th percentile household respectively. This technique is commonly used to avoid particularly high or low income households from excessively influencing the mean value.



Table 1.1: Mean household income

	All households (£ per week)
Pre-benefit income	1,240
Gross cash income	1,290
Net income before housing costs (BHC)	1,040
Net income after housing costs (AHC)	890

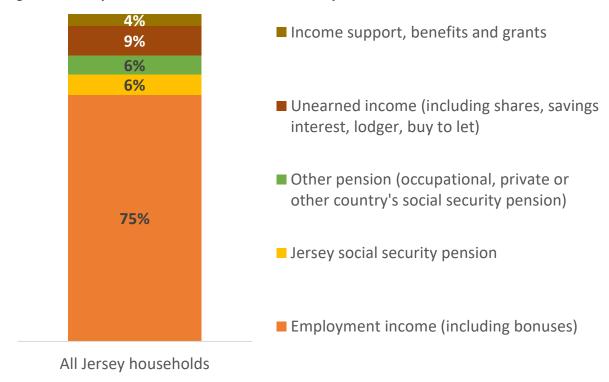
It should be noted that the household incomes presented in this section have not been adjusted for household size: households with more adults may be more likely to have a higher income. The later section on equivalised income presents the data adjusted for household size, to allow fairer comparisons to be made.

Composition of income

Analysing gross cash household income by source (see Figure 1.2) showed that:

- three-quarters (75%) of total household income in Jersey originated from employment (including self-employed earnings)
- a tenth (9%) was from unearned income sources such as shares or dividends, savings interest, buy to let profits, and income from lodgers
- an eighth (12%) of total household income was from a pension 6% of total household income was from the Jersey social security pension, and 6% from either occupational, private or another country's social security pension.

Figure 1.2: Composition of household income in Jersey





Equivalised income distribution

Mean household income will generally be affected by household size, e.g. single adult households will generally have lower incomes than two or more adult households. Furthermore, housing costs will have differing impacts according to the size of the household.

To remove the variation caused by differences in household size, and also in make-up (e.g. numbers of children versus adults), a process of equivalisation is used to standardise every household to the same household size and type. The standard used here, and generally in this field of analysis, is that of an adult couple with no children.

This process of standardisation, called equivalisation, allows fairer comparisons to be made across different sized households. For example, one person with an income of £500 per week living on their own will experience a different standard of living to a family of four with an income of £500 per week. Through the process of equivalisation, household incomes for persons living alone are adjusted upwards, whilst households with more than two adults would have their incomes adjusted downwards.

Using the Modified OECD equivalence scale, a person living alone with a weekly income of £500 would be equivalent to an adult couple with an income of £746 per week. Similarly, a family of four with an income of £500 per week would be equivalent to an adult couple earning £357 per week (see the appendix for further information).

Median equivalised household income

The <u>median</u> equivalised household income² is a particularly meaningful average measure when the overall distribution is skewed (as income distributions typically are, whereby a small number of households may have particularly high incomes).

The median (equivalised) income for households in Jersey <u>before</u> housing costs was £790 per week, and £690 per week <u>after</u> housing costs; see <u>Table 2.1</u>. In other words, if all the households were ordered according to their equivalised household income, the middle household (the 50th percentile) had an income of £690 per week after housing costs.

Table 2.1: Median equivalised household income

	£ per week
Pre-benefit income	950
Gross cash income	960
Net income before housing costs (BHC)	790
Net income after housing costs (AHC)	690

² The equivalised income of the middle (50th percentile) household.



Comparison with 2014/2015 and 2009/2010

Throughout this section, monetary amounts are presented in nominal terms – i.e. not adjusted for inflation.

Mean household income

<u>Table 3.1</u> shows the mean household income for households, at each stage, for 2009/2010, 2014/2015, and 2019/2020, in nominal terms, as well as the nominal and real-term percentage changes.

Table 3.1: Five- and ten-year comparisons of mean household income, £ per week

		£ per week		5 year	% change	10 year	% change
	2009/2010	2014/2015	2019/2020	Nominal	Real-term³	Nominal	Real-term ⁴
Pre-benefit income	1,000	1,020	1,240	22	7	24	-3
Gross cash income	1,050	1,070	1,290	21	6	23	-4
Net income before housing costs (BHC)	840	860	1,040	21	7	24	-4
Net income after housing costs (AHC)	710	720	890	24	9	25	-2

After housing costs, the nominal mean household income has increased by 24% over the last five years. For comparison, the Jersey all items Retail Prices Index (RPI) increased by 13.4% from December 2014 to December 2019, and the Index of Average Earnings increased by 13.3% between June 2014 and June 2019⁵. This resulted in a real-term increase of 9% over the period.

There was a similar 25% nominal increase in the mean household income after housing costs over the last ten years. For comparison, the Jersey all items Retail Prices Index (RPI) increased by 28.4% from December 2009 to December 2019, and the Index of Average Earnings increased by 24.9% between June 2009 and June 2019⁶. This resulted in a real-term decrease of 2% over the period.

Median equivalised household income

As discussed in previous sections of this report, the mean household income can be influenced by households at the extremes, and also does not take into account varying household sizes. A more informative comparison can be made with the median equivalised household income – see Table 3.2.

³ Adjusted for inflation as measured by RPI, which increased by 13.4% from December 2014 to December 2019.

⁴ Adjusted for inflation as measured by RPI, which increased by 28.4% from December 2009 to December 2019.

⁵ Interpolating between the June figures for the Average Earnings Index gives a percentage change for the period December 2014 to December 2019 (the reference periods for each survey) of 12.9%.

⁶ Interpolating between the June figures for the Average Earnings Index gives a percentage change for the period December 2009 to December 2019 (the reference periods for each survey) of 24.9%.



Table 3.2: Five- and ten-year comparisons of median equivalised household income, £ per week

		£ per week		5 year 9	% change	10 year	% change
	2009/2010	2014/2015	2019/2020	Nominal	Real-term	Nominal	Real-term
Pre-benefit income	750	800	950	19	5	27	-1
Gross cash income	780	820	960	17	3	23	-4
Net income before housing costs (BHC)	650	680	790	16	2	22	-5
Net income after housing costs (AHC)	520	560	690	23	9	33	3

For pre-benefit income, gross cash, and net income BHC, the nominal five-year change in median income between 2014/2015 and 2019/2020 ranged from 16% to 19%. The increase for the same period was greater for net income after housing costs, at 23%, driven by average housing costs for those with a mortgage increasing by less than incomes in 2019/2020. Note that while average nominal housing costs increased by 15% over this period, the median income after housing costs also increased due to how housing costs were distributed among households.

The median net income after housing costs for all households increased by £130 to £690 per week, a 23% nominal increase, which is a 9% increase after adjusting for inflation.

Over the ten-year period from 2009/2010 to 2019/2020, the nominal change in median pre-benefit income, gross cash, and net income BHC ranged from 22% to 27%. The increase for the same period was greater for net income after housing costs, at 33%, driven by lower average housing costs for those with a mortgage in 2019/2020. Note that while average nominal housing costs increased by 15% over this period, the median income after housing costs also increased due to how housing costs were distributed among households.

The median net income after housing costs for all households increased by £170 to £690 per week, a nominal increase of 33%, which is a 3% increase after adjusting for inflation.

Relative low income

<u>Table 3.3</u> shows that the proportion of households with income lower than the thresholds of 60% and 50% of median household income *before* housing costs have not changed significantly when compared to 2009/2010 and 2014/2015.

After housing costs, there was a slight increase (of around 1 to 2 percentage points) in the proportion of households falling below the relative low income thresholds from 2014/2015 to 2019/2020. The proportions in 2019/2020 were 6-8 percentage points higher than in 2009/2010.

Table 3.3: Percent of households with equivalised income below relative low income thresholds, before and after housing costs, 2009/2010, 2014/2015, and 2019/2020 compared

	% of households with income below 9 60 % of median				holds with in 50 % of media	
	2009/10	2014/15	2019/20	2009/10	2014/15	2019/20
Before housing costs	15	16	17	9	10	9
After housing costs	21	26	27	12	18	20



The proportions of individuals living in households with incomes below the relative low income thresholds in 2019/2020 were essentially unchanged from 2014/15; see <u>Table 3.4</u>. Compared with 2009/2010, the proportion of individuals before housing costs was the same, and after housing costs the proportion was 4-6 percentage points higher in 2019/2020.

Table 3.4: Percent of individuals living in households with equivalised income below relative low income thresholds, before and after housing costs, 2009/2010, 2014/2015, and 2019/2020 compared

	% of individuals living in households with income below 60 % of median				duals living in ne below 50 %	
	2009/10	2014/15	2019/20	2009/10	2014/15	2019/20
Before housing costs	13	13	13	7	8	7
After housing costs	19	23	22	10	16	16

After housing costs, one in five (22%) individuals were in relative low income (RLI). This compares with one in four (25%) children, and one in three (34%) pensioners.

Quintiles

A useful approach for exploring the distribution of household income is to divide households in Jersey into five equal sized groups ('quintiles') according to their income level – the first quintile being the 20% of households with the lowest incomes, the second quintile being the next 20% of households and so on, up to the fifth, or top, quintile being the 20% of households with the highest incomes.

The smaller number of responses achieved in this 2019/2020 survey prevents most statistics on quintiles from being produced, as explained in the <u>introduction</u>.

The mean household income after housing costs of those in the lowest quintile increased by 1% in real-terms over the last five years, and 14% in nominal terms. This compares with a 9% increase in real-terms for all households, and a 24% nominal increase.

Comparison with the UK

Comparing 2019/2020 results for Jersey and the UK (<u>Tables 3.5 and 3.6</u>) shows that equivalised median incomes were 44% higher in Jersey than in the UK, both before and after housing costs were taken into account.

Before housing costs, the proportion of households in relative low income was similar in Jersey and the UK (17% and 18% respectively). However, after housing costs a larger proportion of households in Jersey were in relative low income compared with the UK (27% compared with 22% in the UK).

Table 3.5 Jersey median equivalised household income compared with the UK, before housing costs

Before housing costs	Median household income	% of households below 60% of median	% of individuals below 60% of median
Jersey 2019/2020	790	17	13
UK 2019/2020	549	18	18
Difference	44%	-1 pp	-5 pp



Table 3.6 Jersey median equivalised household income compared with the UK, after housing costs

After housing costs	Median household income	% of households below 60% of median	% of individuals below 60% of median
Jersey 2019/2020	690	27	22
UK 2019/2020	478	22	22
Difference	44%	+5 pp	0 рр

Before housing costs, a smaller proportion of individuals lived in households with a relative low income in Jersey compared with the UK (5 percentage points lower in Jersey). After housing costs, essentially the same proportion of individuals lived in households with a relative low income in Jersey compared with the UK (both 22%).

In 2014/2015, there were similar differences between these proportions for Jersey and the UK before and after housing costs.

Table 3.7 Percentage of individuals living in a household in RLI (below 60% of median), before and after housing costs, Jersey compared with the UK

	Before housing costs		After hous	sing costs
	Jersey	UK	Jersey	UK
Children	11	23	25	31
Working-age adults	10	20	18	20
Pensioners	25	19	34	18
All individuals	13	18	22	22

One in four (25%) children were in RLI, a lower proportion than the UK (31%); see <u>Table 3.7</u>. In contrast, one in three (34%) pensioners were in RLI, twice the proportion of the UK (18%).

In 2014/2015, 29% of children were in RLI after housing costs in Jersey, marginally more than in the UK (28%). Over a quarter (28%) of pensioners were in RLI after housing costs, twice the proportion of the UK (14%).



Appendix

Definitions

The **mean income** is the sum of the income of all households, divided by the number of households.

The **median income** is the income of the middle household of the distribution (the 50th percentile, the mid-point between the lowest and highest income households). Half of households will have a lower income than the median, and half will have a higher income than the median.

As the distribution of household incomes tends to be 'skewed' (that is there are fewer households with very high incomes), the mean household income will tend to be higher than the median, and there will be more than half of households whose income is less than the mean. To prevent exceptionally high or low values from unduly influencing the mean value, 2.5% **winsorisation** was used, whereby the top 1.25% and the bottom 1.25% of household incomes were assigned to the 1.25th and 98.75th percentile values respectively.

Equivalisation is used to enable a fairer comparison between different sized households. For example, a single person living on their own earning £44,000 a year might be considered to have a higher equivalent income compared to an adult couple and three young children with total income £44,000.

Equivalisation was carried out using an internationally recognised equivalence scale: the 1998 Eurostat Task Force recommended the use of the Modified OECD equivalence scale for continuity and comparability reasons. In addition, the UK publication "Households Below Average Income" uses the Modified OECD equivalence scale, with a slight variation introduced for incomes after housing costs. Therefore this report uses the equivalisation scales below in Table A1.

Table A1: The Modified OECD equivalence scale

	Before housing costs	After housing costs
First adult in household	0.67	0.58
Any additional persons aged 14 years or over	0.33	0.42
Any children aged 0 – 13 years	0.20	0.20

'Relative low income' has multiple definitions that are used internationally. The 1998 Eurostat Task Force recommended the use of the relative low income threshold at 60% of the median equivalised income value, which is threshold used in this report.

Incomes

Gross cash income was defined on a household level as: all financial flows into the household, both earned and unearned, over the previous 12 months. This included:

- earnings from any employment (including self-employment, bonuses, benefits in kind)
- income from pensions, including the Jersey Social Security pension, other countries' social security pensions, private, superannuation, and occupational pensions
- income support awards, including payments paid directly to landlord, HMA ("Household Medical Account") fund, and childcare provision
- benefits, from Jersey social security or other countries, e.g. maternity grants and allowances, sickness allowance, Christmas bonus, cold weather payments, TV licence schemes
- income from lodgers or buy-to-lets (profit only)
- income from child maintenance arrangements
- income from shares, share options, dividends, fixed income, and interest from savings
- income from any other source, including regular gifts
- the actual value of assets and/or savings were not included



Net income before housing costs (BHC) was defined as Gross Cash Income, minus:

- income tax
- rates (parish and Island-wide)
- social security payments
- pension contributions
- child maintenance payments made to other households

Net income after housing costs (AHC) was defined as Net Income BHC, minus:

- mortgage interest or rent payments on place of residence
- service charge on place of residence
- buildings insurance for place of residence

A **household** was defined as one person living alone, or a group of people (not necessarily related) living at the same address, who share a shopping bill, eat together, <u>and</u> share the same living space.

The **reference period** for this survey was December 2019.

Survey Methodology

Sample

Over an 8-month period from July 2019 to March 2020, a *random* sample of around 200 households was approached each month to take part in Jersey's Household Spending and Income Survey. This was shorter than the usual survey period; see the <u>introduction</u> for details.

Sampling error

By definition, a sample survey does not involve approaching every household in the Island. However, the aim is that the results are representative of all Jersey households. To this end, the sample was randomly chosen, and stratified by parish (that is, the sample included households within each parish in proportion to that which is found in Jersey as a whole).

However, given that not every household in Jersey was approached, the results will include some 'sampling error', the degree of which can be estimated. Calculations show that, for the results reported in this document, income values are accurate⁷ to within 7%. For example, an estimated value of £1,000 derived from respondents implies the true population value to be between £930 and £1,070.

Any proportions which are reported are accurate to within 4 percentage points⁷. For example, a sample proportion of 50% would indicate the true population value to be within 46% and 54%.

Data quality

Detailed information was gathered on household income sources through interviewer-led questions and entered directly into a laptop. The software included a number of consistency checks; in addition, the data was manually checked a second time by office staff to optimise data quality and consistency.

Weighting

Whilst every effort is made to encourage the randomly sampled households to take part, there is inevitably some variation in the willingness and ability of households to do so. In order to ensure the representativeness of the sample, so that inferences can be drawn about the population of Jersey as a whole, the set of respondents was inspected by tenure type. The responses of each household were assigned a 'weight' according to whether its particular tenure was over or under-represented in the set of respondents, compared with the known distribution for all Jersey households.

⁷ At the 95% confidence interval



The known distribution of tenures in Jersey is taken from the 2011 Census.

<u>Table A2</u> presents the distribution of tenure for all respondents to the 2019/2020 Income Distribution Survey alongside the *updated* tenure profile. The implied weighting factor (which indicates by how much each record is weighted up or downwards) is also given.

Table A2: Household Tenure profile of the un-weighted Income Distribution Survey (IDS) responses

Tenure	% in IDS	% in 2011 Census	Implied weighting factor
Owner Occupied	56	54	0.98
Social rent	16	14	0.84
Qualified private rent	22	19	0.85
Non-qualified accommodation	6	13	2.2
Total	100	100	N/A

The weighting method ensures that households of each tenure type are represented in the analysis according to the proportion of each tenure type in Jersey as a whole. <u>Table A3</u> shows the distribution of household type across this weighted dataset, and shows that no category is particularly over- or under-represented in the set of respondents relative to the 2011 Census distribution of household types.

Table A3: The percent of each household types in the weighted dataset compared to the 2011 Census

Household type	% in 2011 Census	Weighted % in IDS
Pensioner households	21	24
One-parent families	4	5
Couple with at least one dependent child	19	25
Couple with no children	16	14
Person living alone (working-age)	18	16
Other	22	16
All households	100	100

Content

Questions were asked of every member of the household, covering both earned and unearned income, and including pensions, benefits, and income support, as well as income from sources such as buy-to-let properties, lodgers, maintenance payments made and received, regular gift income, and so on.

Individuals were asked to give their earnings from employment over the preceding 12-month period, including profit from self-employment.

Additional questions were included in the questionnaire in order to explore how different factors are linked to household income levels, for example tenure of property, age, and residential qualifications of household members.

Expenditure on housing (including mortgage interest payments, rent, and buildings insurance payments, parish rates) was used to determine the proportion of household income spent on such items. In particular, income before and after housing costs is reported. This is common in surveys of this nature, to give a more complete picture of income distribution and the effects of housing costs.



Throughout this report, unless otherwise identified, income is presented at household level – i.e. household income, rather than individual income. Where individual income is used, it is assumed that household income is uniformly distributed across household members.

Response rates

A total of 515 households agreed to take part and completed the survey, representing a response rate of 41%. This can be considered a good response rate for a survey of this nature.

Adjustments to mean using known population measures

As described in the <u>introduction</u>, the 2019/2020 survey was cut short, and comparison of the response set with known population totals showed that buy to let income and income derived from company profits were clearly underrepresented in the sample. These discrepancies were accounted for in the mean averages to ensure they represented the unearned incomes of all households, specifically those of the very highest income households.

Median employment earnings

The <u>average earnings index</u> (AEI) gives a measure of the annual *change* in the average (mean) full-time equivalent earnings for a matched sample of businesses in Jersey. The AEI shows that the five-year increase in full-time equivalent earnings was 12.9% from June 2014 to June 2019, and the ten-year increase was 24.9% from June 2009 to June 2019.

AEI methodology is specifically designed to measure change in earnings over time within industry sectors and overall, and does not capture *individual* employee level earnings data to enable a median earnings figure to be produced.

The Income Distribution Survey *does* capture information on individual employment earnings, and a separate analysis was carried out to focus in on this component of income. Gross earnings of employees and the self-employed were converted into an hourly rate, before being uprated to full-time equivalent. Bonus payments were excluded (as they are in AEI). The earnings data were weighted according to industry, to ensure the sample of jobs was representative of employment in Jersey.

Using this methodology, IDS gives a **median** average employment earnings per full time employee of £620 per week as at December 2019. This is 15% higher than the last survey's figure of £540 for December 2014.

Data tables

Data tables can be found on the Statistics Jersey website under <u>earnings and income statistics</u> and on <u>OpenData</u>.

Further information

Further information regarding analysis of the information collected through the Living Costs and Household Income Survey is available from <u>Statistics Jersey</u>.