

Income Dynamics: Income movements and the persistence of low incomes

Data for 2010-2016

● Annual

Published: 22 March 2018
United Kingdom

Official Experimental

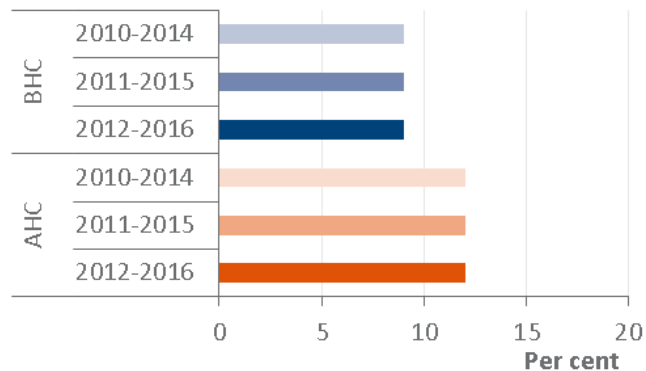
The Income Dynamics (ID) report presents information on changes in income over time. The main results relate to the persistence of relative low incomes. Individuals are described as being in persistent low income if they are in relative low income in at least three out of four consecutive annual interviews.

Children had the highest rate of persistent low income both Before Housing Costs and After Housing Costs. Working-age adults had the lowest rate of persistent low income Before Housing Costs and Pensioners had the lowest rate After Housing Costs

- This is broadly in line with single-year relative low income estimates reported in [Households Below Average Income](#).
- Overall, 9 per cent of individuals Before Housing Costs (BHC) and 12 per cent of individuals After Housing Costs (AHC) were in persistent low income in 2012-2016.
- 11 per cent of children BHC and 17 per cent of children AHC were in persistent low income in 2012-2016.

Persistence

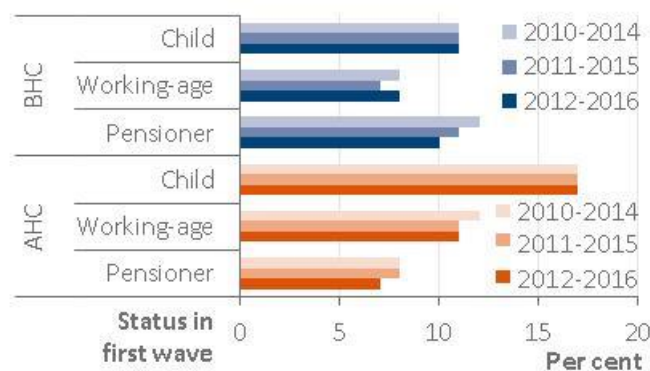
Similar in 2010-2014, 2011-2015
and 2012-2016



Similarly to single year low-income results, rates of persistent low income were generally higher AHC...

By population group

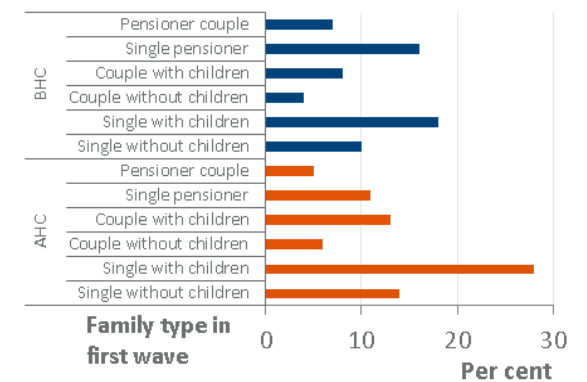
Similar in 2010-2014, 2011-2015
and 2012-2016



...but again like single year low-income results, rates AHC were lower for pensioners.

By family type

Large variations by family type



Singles with children had high rates of persistent low income, while couples without children had low rates.

At a glance

Page

Overall persistent low incomes	3
Child persistent low incomes	4
Working-age persistent low incomes	6
Pensioner persistent low incomes	7
Persistent low incomes by health status	8
Movement between quintiles	9
Movement patterns over time	10
Low-income entry and exit rates	11

Lead Statistician: Julia Jagelman

teamincome.dynamics@dwp.gsi.gov.uk

DWP Press Office: 0203 267 5129

Comments? Feedback is welcome

Published 22 March 2018

Next edition February / March 2019

ISBN 978-1-78659-028-2

© Crown copyright

What you need to know

This is the second annual experimental statistics publication on income dynamics. It provides data on changes in household incomes in the UK including a measure of the extent to which people experience persistently low income. This meets DWP's statutory obligation to publish a measure of persistent low income for children under section 4 of the [Welfare Reform and Work Act 2016](#).

Income measures

ID uses disposable household income adjusted for household size and composition as a proxy for living standards, estimated on both a before and after housing costs basis (BHC and AHC). A household is said to be in relative low income if their equivalised incomes is below 60 per cent of median income.

In line with international best practice, the income measures used in ID are subject to several statistical adjustments and, as such, are not always directly relatable to income amounts as they might be understood by individuals on a day-to-day basis. These adjustments are necessary, however, to allow us to compare measures over time and across households of different sizes and compositions on a consistent basis. These adjustments are discussed in more detail on page 12, with further information available in the ID Background information and methodology report.

These adjustments are similar to those used in Households Below Average Income (HBAI), which provides estimates of the prevalence of low incomes for a single year.

Survey data

ID estimates are based on the Understanding Society survey. In 2015-2016 it consisted of a longitudinal sample of over 38,000 individuals in the UK. It has a two-year survey period and follows the sample individuals over time. Each survey period is termed a wave. Individuals are interviewed once a year. Use of survey data means that results in this report are subject to a margin of error which can affect how changes should be interpreted, especially in the short term.

Figures are rounded to the nearest percentage point independently and as a result, may not sum exactly due to rounding.

Classifications are based on the relevant characteristics **in the first survey period**.

Additional tables and data

A number of additional reference tables are also available online, breaking down the headline results presented in this report for different characteristics and time periods. See <https://www.gov.uk/government/statistics/income-dynamics-2015-to-2016>.

Revisions to the statistics

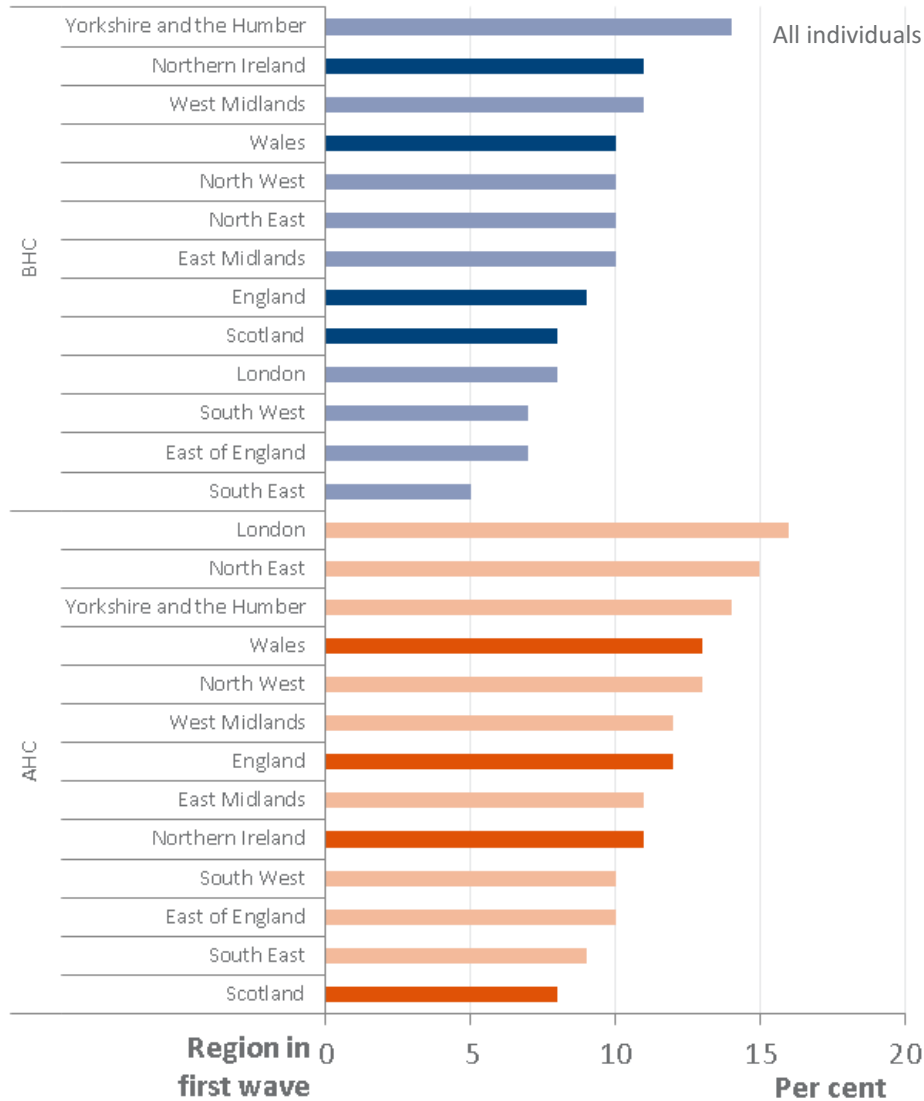
DWP have worked with the University of Essex to improve the quality of the derivation of incomes therefore these statistics have been subject to revisions beyond those that occur routinely in longitudinal data analysis.

DWP are seeking [feedback](#) from users to inform future ID publications. Please respond by 29 June.

Overall persistent low incomes

Persistent low income varies a lot by region / country and is highest in the social rented sector

UK, 2012-2016

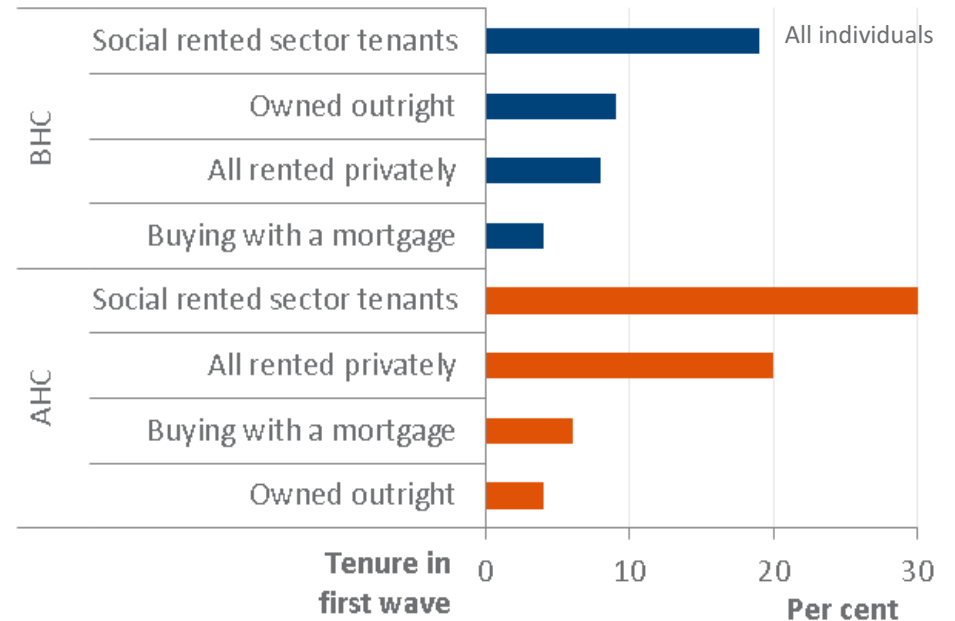


In 2012-2016, Yorkshire and the Humber had the highest percentage of the population in persistent low income BHC (14 per cent). The lowest rate of persistent low income was in the South East (5 per cent).

The highest rate of persistent low income AHC was in London (16 per cent), reflecting high housing costs. The lowest rates were in Scotland (8 per cent).

Looking at tenure types, both BHC and AHC the highest rates of persistent low incomes were in the social rented sector (19 per cent BHC, 31 per cent AHC), while the lowest rate was for those buying with a mortgage BHC or owning outright AHC.

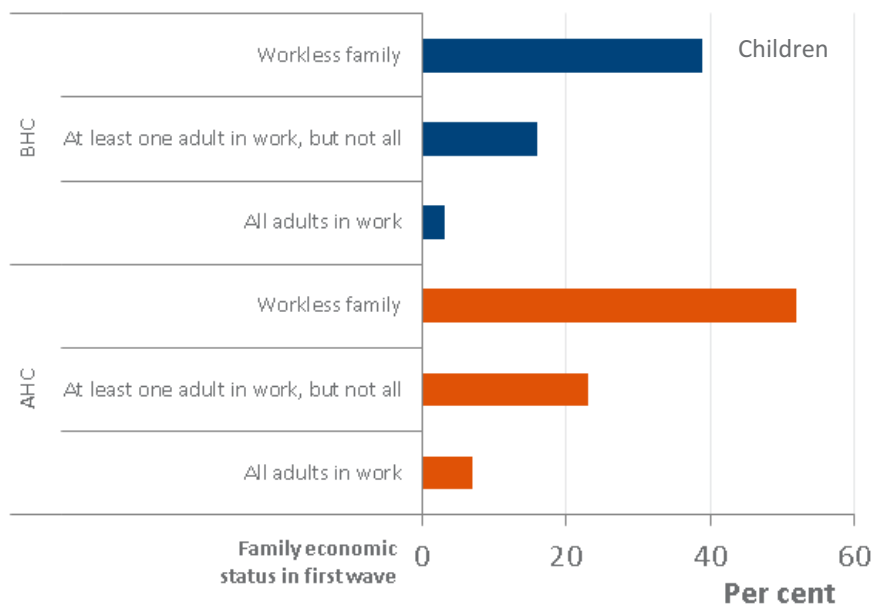
See **Tables 2.1 to 2.6** for full data.



Child persistent low incomes by economic status and family type

Lower rates of persistent low income for children in working families and in couple families

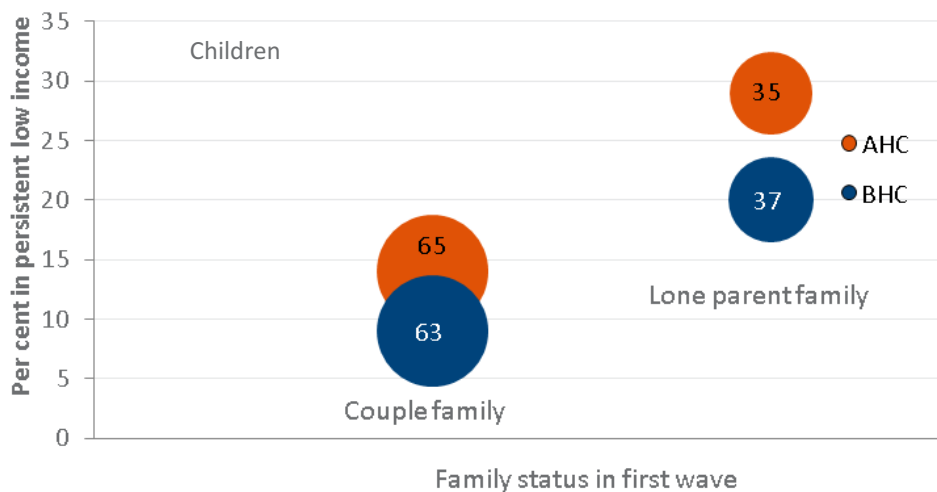
UK, 2012-2016



Reporting on the percentage of children in the United Kingdom who live in households whose income has been less than 60 per cent of median equivalised net household income in at least three of the last four survey periods is required under section 4 of the [Welfare Reform and Work Act 2016](#). Eleven per cent of children BHC and 17 per cent AHC were in households with persistent low income in 2012-2016.

Children were much more likely to be in persistent low income where they were in a workless family. In 2012-2016, 39 per cent of children in workless families (in the first wave) were in persistent low income BHC. For AHC the figures were even higher at just over half.

Where all resident parents work, the rates were much lower, at 3 per cent BHC and 7 per cent AHC.



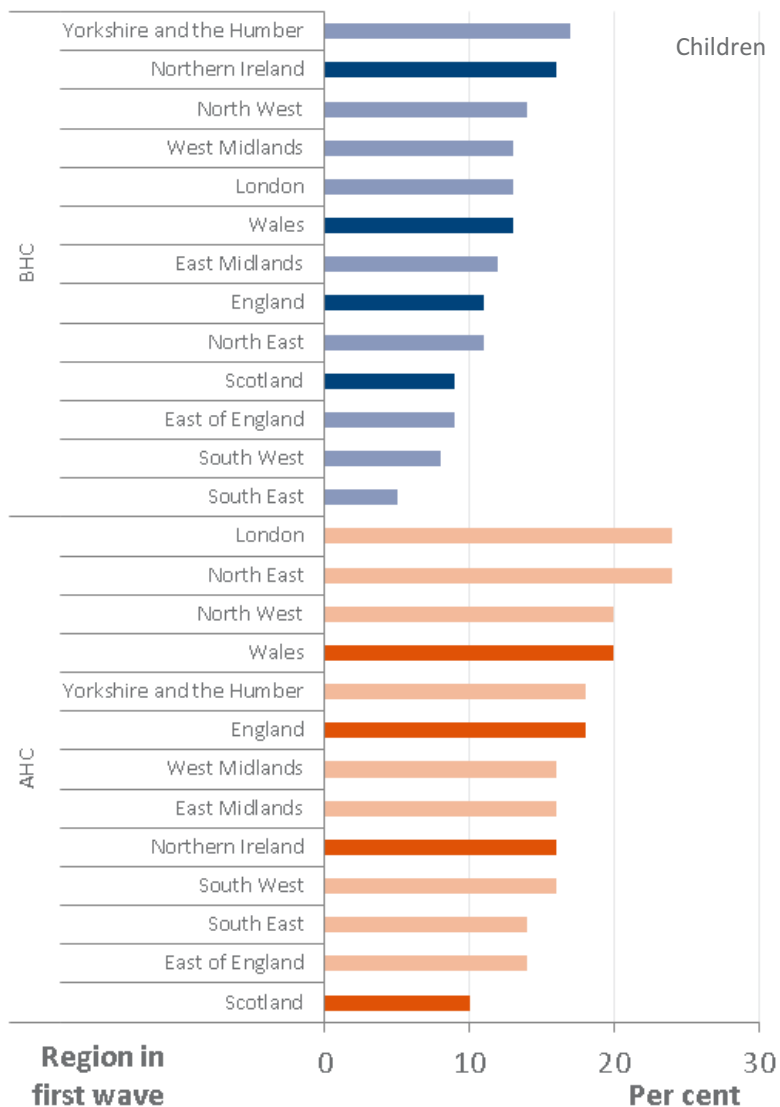
This chart shows the percentage of each group in persistent low income, with the size of the bubble the share of those in low income in each group. For instance, looking at the lowest BHC bubble shows that 9 per cent of children in couple families were in persistent low income BHC (shown by the level of the centre of the bubble) however of all children in persistent low income, 63 per cent were in a couple family (shown by the size of the bubble).

The bubbles corresponding to children in lone parents are higher than those for children in couple families, showing that a higher percentage of children in lone parent were in persistent low income. However, the bubbles are bigger for children in couple families, reflecting that two thirds of children in persistent low income lived in couple families, because the population of children in couple families is greater.

Child persistent low incomes by region / country and size of family

Persistent low income for children also varies a lot by region / country and is highest in larger families

UK, 2012-2016

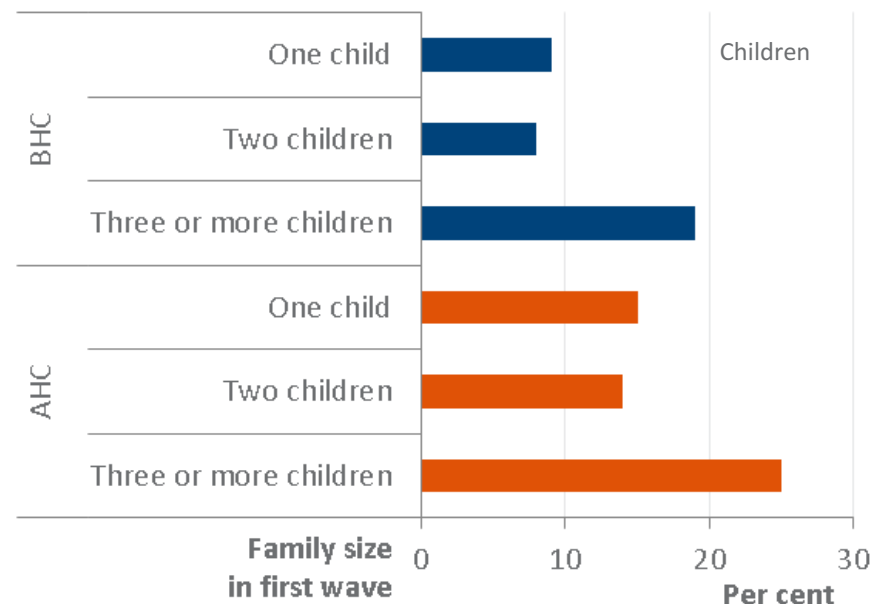


Children in Yorkshire and the Humber were most likely to be in households with a persistent low income BHC, while London and the North East had the highest rates AHC.

Children in the South East of England were least likely to be in households with a persistent low income BHC, while Scotland had the lowest rate AHC.

Children in large families with three or more children were more likely to be in persistent low income than smaller families, both BHC and AHC. There was less variation in persistent low income rates for children in smaller families.

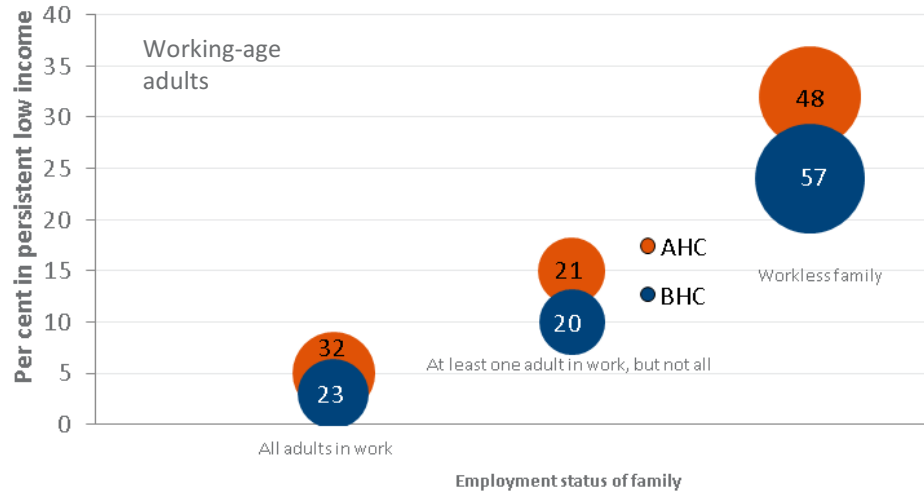
See **Tables 3.1 to 3.6** for full data.



Working-age persistent low incomes by economic status, qualifications and ethnicity

Persistent low income higher in workless families, for adults with no qualifications and in non-white households

UK, 2012-2016

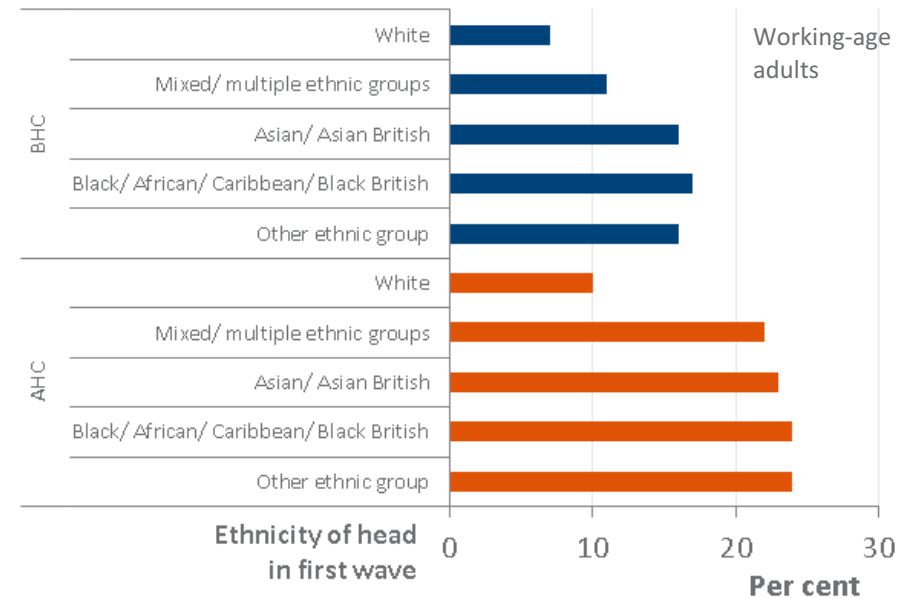
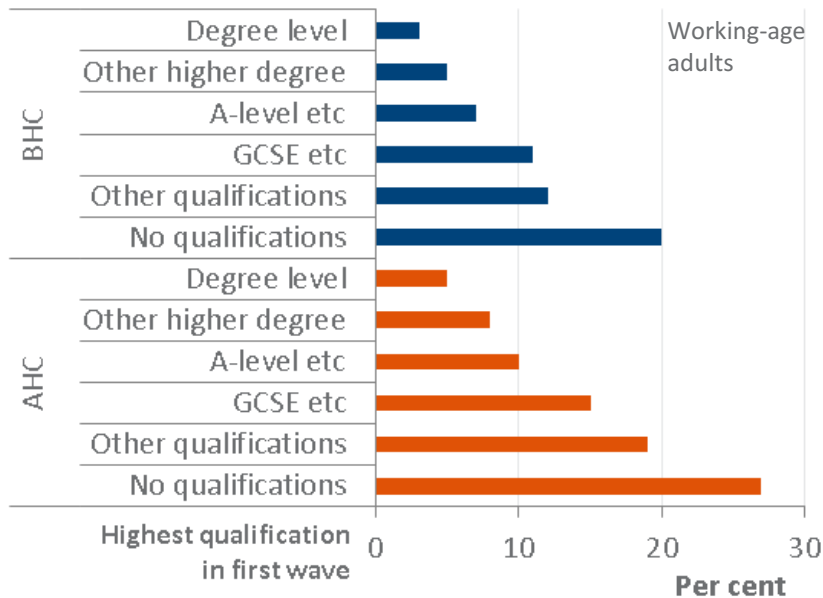


Again, families with more household members in work had lower rates of persistent low income. A working-age adult in a workless family in the first wave was eight times (BHC) and around six times (AHC) more likely to be in persistent low income than a family where all members were in work. However, because of the larger overall population of working-age adults in families with someone in work, more than two-fifths (BHC) and around half (AHC) of working-age adults in persistent low income were in families where someone was working.

The higher the level of qualifications, the lower the rate of persistent low income, with persistent low income being more common amongst groups with lower formal qualifications, rising to 20 per cent BHC amongst those with no formal qualifications (27 per cent AHC).

Looking at the ethnicity of the household reference person, working-age adults in households headed by someone of white ethnicity had lower rates of persistent low incomes than working-age adults in households headed by someone of non-white ethnicity.

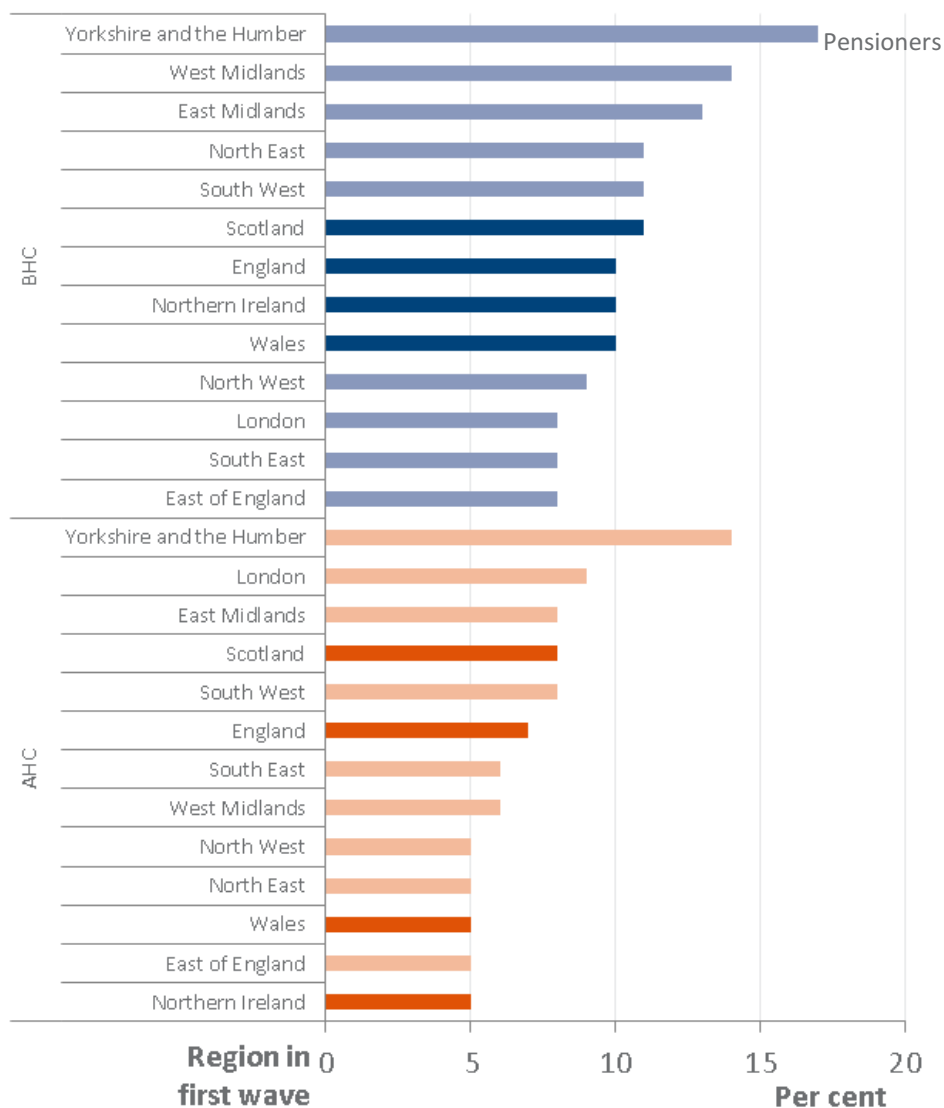
See **Tables 4.1 to 4.6** for full data.



Pensioner persistent low incomes by region and tenure

Persistent low income for pensioners varies a lot by region / country and tenure

UK, 2012-2016

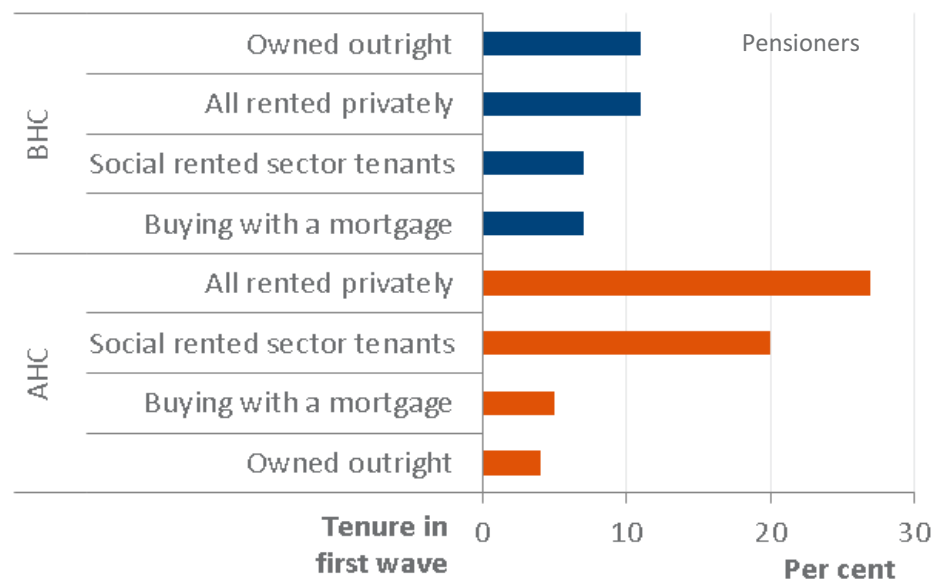


Yorkshire and the Humber had the highest rate of pensioner persistent low income BHC and the East of England, South East and London had the lowest rates. AHC, Yorkshire and the Humber also had the highest rate and the North West, North East, Wales, East of England and Northern Ireland had the lowest rates.

Pensioners are relatively likely to own their own home outright and have low or no housing costs (over 70 per cent of pensioners in Understanding Society owned outright in 2012-2016). This means that typically a pensioner's household income is reduced by a smaller amount than other households when housing costs are deducted. They were therefore less likely to be in persistent low income After Housing Costs.

Those who own outright were more likely to be in persistent low income BHC than those who own with mortgages, but less likely to be in persistent low income AHC because of low housing costs. Pensioners who rent either socially or privately had much higher rates of persistent low income, AHC.

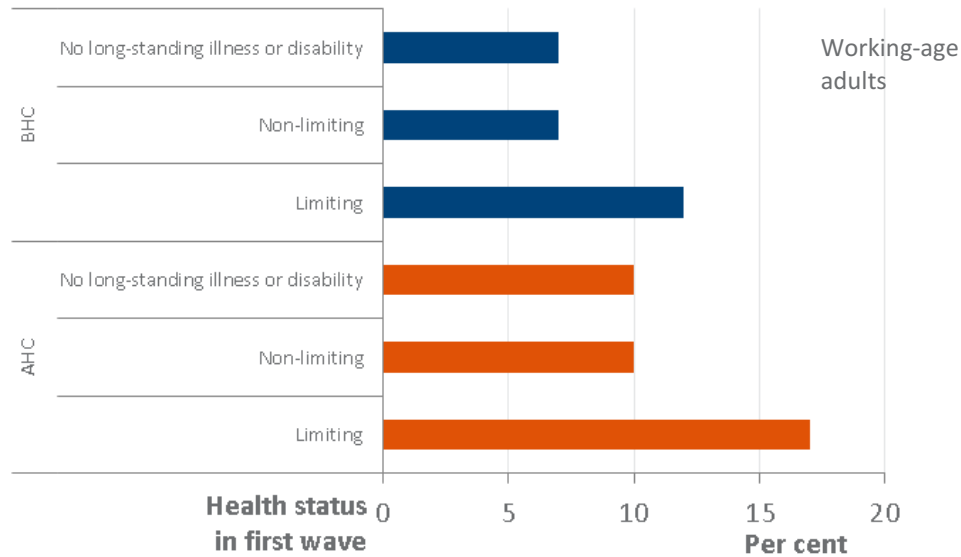
See **Tables 5.1 to 5.6** for full data.



Adults in persistent low incomes by health status and age

Persistent low income higher for working-age adults with long-standing limiting illness

UK, 2012-2016

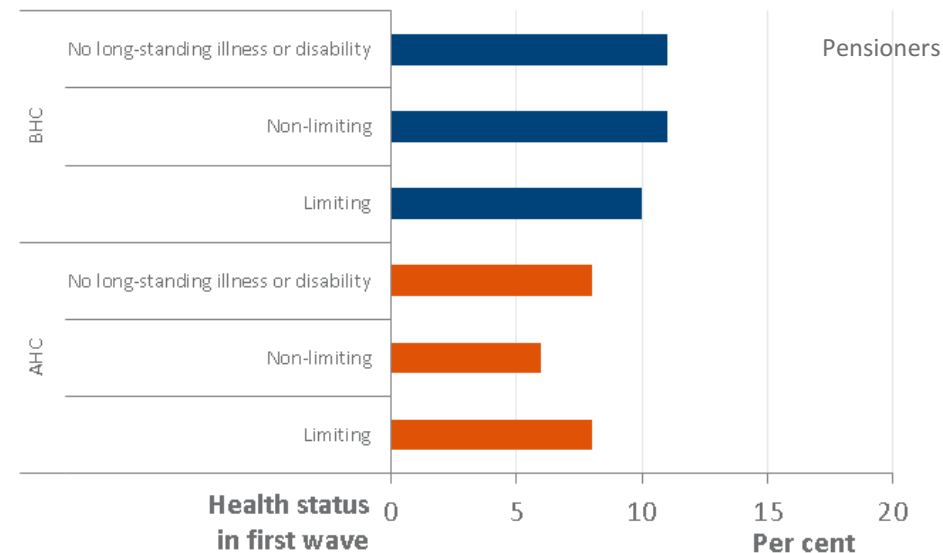


On Understanding Society, questions on health status are only asked of adults. There is an initial question to determine whether a respondent has any long-standing physical or mental impairment, illness or disability which has lasted for a year or is likely to last a year. If a respondent answers yes to this, they are then asked if the health problems or disabilities mean that they have substantial difficulties with any of 12 areas of their life. If they answer yes to this, we consider the disability to be limiting. This is broadly in line with the Equality Act definition.

Having a long-standing illness or disability that limits your activities is associated with a higher likelihood of being in persistent low income for working-age adults.

In contrast with working-age adults, pensioners who report a limiting long-standing illness or disability have similar rates of persistent low income to those with no long-standing illness or disability. This may reflect the onset of age-related ill-health or disability after making provision for retirement during their working life. Fifty-six per cent of pensioners on Understanding Society report a limiting illness or disability compared to 29 per cent of working-age adults.

See **Tables 4.1, 4.4, 5.1 and 5.4** for full data.



Movement between income quintiles over five years

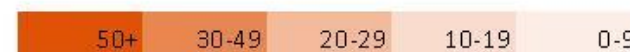
Most movements between quintiles are short range

UK, 2010-2016

BHC Quintile (per cent)		2010-2011 position in income distribution				
		Q1 (lowest fifth)	Q2	Q3	Q4	Q5 (highest fifth)
2015-2016 position in income distribution	Q1 (lowest fifth)	47	27	12	8	4
	Q2	25	33	25	11	5
	Q3	15	23	30	21	10
	Q4	8	11	23	37	22
	Q5 (highest fifth)	4	5	10	24	58
	Total	100	100	100	100	100

AHC Quintile (per cent)		2010-2011 position in income distribution				
		Q1 (lowest fifth)	Q2	Q3	Q4	Q5 (highest fifth)
2015-2016 position in income distribution	Q1 (lowest fifth)	45	26	14	7	5
	Q2	27	33	24	10	5
	Q3	15	23	30	22	11
	Q4	8	12	22	36	22
	Q5 (highest fifth)	5	5	10	24	56
	Total	100	100	100	100	100

Key



The information underlying these statistics allows us to follow individuals over time. This table shows where an individual was in the first wave (2010-2011) compared to where they were in the last wave (2015-2016) by quintile. Quintiles divide the population, when ranked by household income, into five equal sized groups. Quintile 1, for example, is the fifth of the population with the lowest household incomes.

The percentage of individuals in 2010-2011 who were in the same quintile in 2015-2016 is lowest in the middle of the distribution, at 30 per cent in quintile 3 (BHC), rising to 47 per cent in the lowest and 58 per cent in the top quintiles. Across all quintiles, at most, around a quarter of individuals in each quintile in 2010-2011 had moved up or down by more than one quintile. A similar picture is seen AHC. This shows there are mostly short-range movements in income over this period.

See **Tables 6.1 to 6.4** for full data.

Where in the income distribution individuals spent the majority of their time

While most individuals move between quintiles, those in the top quintile were least likely to move to a different quintile

UK, 2010-2016

BHC Quintile (per cent)	Original 2010-2011 position in income distribution					
	Q1 (lowest fifth)	Q2	Q3	Q4	Q5 (highest fifth)	All Individuals
All years in the same quintile as 2010-2011	21	5	5	7	37	15
Majority of years in same quintile as 2010-2011	17	12	10	15	16	14
Majority of years above 2010-2011 quintile	32	20	16	9	...	15
Majority of years below 2010-2011 quintile	...	10	19	20	24	15
None of the above	30	52	50	48	23	41
Total	100	100	100	100	100	100

AHC Quintile (per cent)	Original 2010-2011 position in income distribution					
	Q1 (lowest fifth)	Q2	Q3	Q4	Q5 (highest fifth)	All Individuals
All years in the same quintile as 2010-2011	16	6	5	7	35	14
Majority of years in same quintile as 2010-2011	18	10	9	14	15	13
Majority of years above 2010-2011 quintile	34	21	16	9	...	16
Majority of years below 2010-2011 quintile	...	9	19	22	25	15
None of the above	33	54	51	48	25	42
Total	100	100	100	100	100	100

Key ... not applicable 50+ 30-49 20-29 10-19 0-9

... not applicable 50+ 30-49 20-29 10-19 0-9

Similar to the previous table, the information here allows us to see where in the income distribution individuals spent the majority of their time relative to the first wave (2010-2011) over the period 2010-2016.

Of all the quintiles, the top quintile had the largest proportion of individuals who spent all six waves in the same quintile. This was true on both BHC and AHC bases.

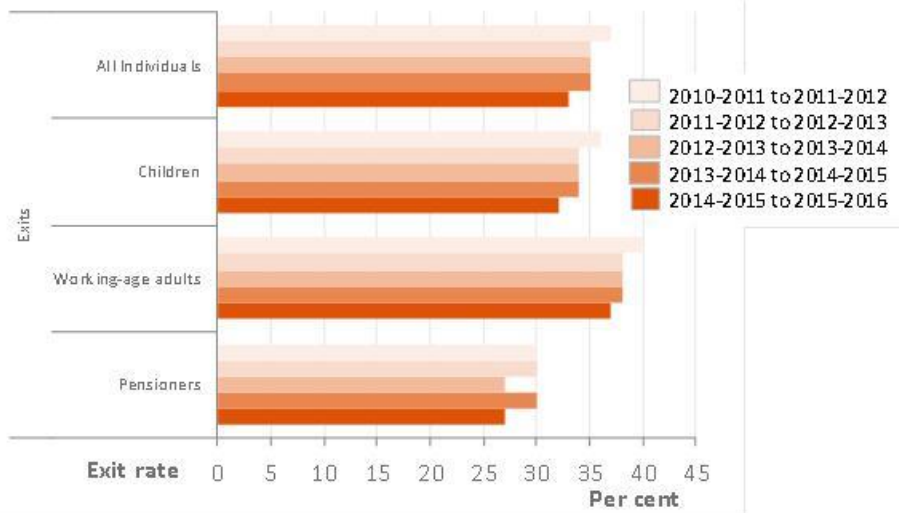
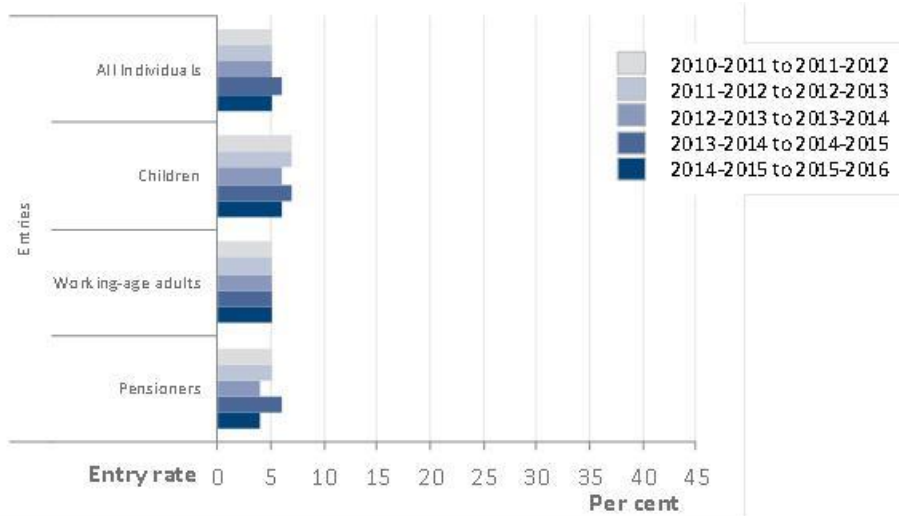
Those in the middle of the income distribution in quintiles 2, 3 and 4 were least likely to stay in the same quintile or to spend the majority of the time in their starting quintile in 2010-2011. Most commonly, individuals neither remained in the same quintile as the original, nor were in a higher or lower quintile for four of the six waves. This means that they fall into the 'none of the above' group in the table. Individuals in this group would have spent a maximum of three years in either their original, higher or lower quintile. There are a few different ways this situation can happen. For example, a possible combination matching this criterion for respondents over the six waves is three waves in a lower quintile, two waves in the original quintile and one in a higher quintile.

See **Table 7.1** for full data.

Low-income entry and exit rates

Entry and exit rates are broadly stable over time

UK, 2010-2016



This new analysis looks at individuals moving into and out of low income and uses a measure of equivalised household income consistent with that used in the previous tables. When analysing transitions into and out of low income, the threshold used is the standard 60 per cent of median income Before Housing Costs (BHC). For the reason that household incomes are subject to measurement error, and in turn that the threshold is subject to sampling and measurement error, the analysis for transitions between one wave and the next only include 'clear' transitions. For example, for an exit or entry to occur, household incomes must change such that they cross the threshold and are at least 10 per cent higher / lower than 60 per cent median income in the following wave.

Entry rates are much lower than exit rates, because the starting population is those in the original state i.e. for entry rates the starting population is all those individuals not in low income and for exit rates it is those in low income. There are more individuals not in low income than are in low income, so even if an equal number of individuals exit and enter low income (as is suggested by the stable persistent low income rates), then we would still see higher exit rates than entry rates.

The analysis here focuses on individuals. However, as individuals live in households and we assume that all members of the household benefit equally from the household's income, they will be affected by changes at the household level. This could come about either through changes in income levels, or by changes in the household composition which affects incomes through the equivalisation process.

The entry rate into low income for all individuals not in low income has remained around 5 per cent between one wave and the next since 2010-2011.

Entry rates have generally been highest for children and lowest for pensioners.

Around a third of individuals who experienced low income in any one year exited from low income in the following year.

Exit rates have generally been highest for working-age adults and lowest for pensioners.

Low exit and entry rates for pensioners suggest they have relatively stable incomes.

See **Tables 8.1 to 8.8** for full data.

Measuring incomes and persistence in Income Dynamics

ID uses data from Understanding Society to derive a measure of disposable household income. Adjustments are made to take into account the size and composition of households to make figures comparable.

Understanding Society Survey Understanding Society is a longitudinal sample of over 38,000 individuals in the United Kingdom in 2015-2016 led by the University of Essex. Those not in private households at the start of the survey will not be included.

Sampling Error Results from surveys are estimates and not precise figures - in general terms the smaller the sample size, the larger the uncertainty. We are unable to calculate sampling uncertainties for these statistics, but please note that small changes are unlikely to be statistically significant.

Non-Sampling Error Survey data represents the best data from respondents to the survey. If people give inaccurate responses or certain groups of people are less likely to respond this can introduce biases and errors. This non-sampling error can be minimised through effective and accurate sample and questionnaire design and extensive quality assurance of the data. However, it is not possible to eliminate it completely, nor can it be quantified.

Income This includes:

- Labour income – usual pay and self-employment earnings. Includes income from second jobs.
- Miscellaneous income – educational grants, payments from family members and any other regular payment
- Private benefit income – includes trade union/friendly society payments, maintenance or alimony and sickness or accident insurance
- Investment income – private pensions/annuities, rents received, income from savings and investments
- Pension income – occupational pensions income
- State support – tax credits and all state benefits including State Pension

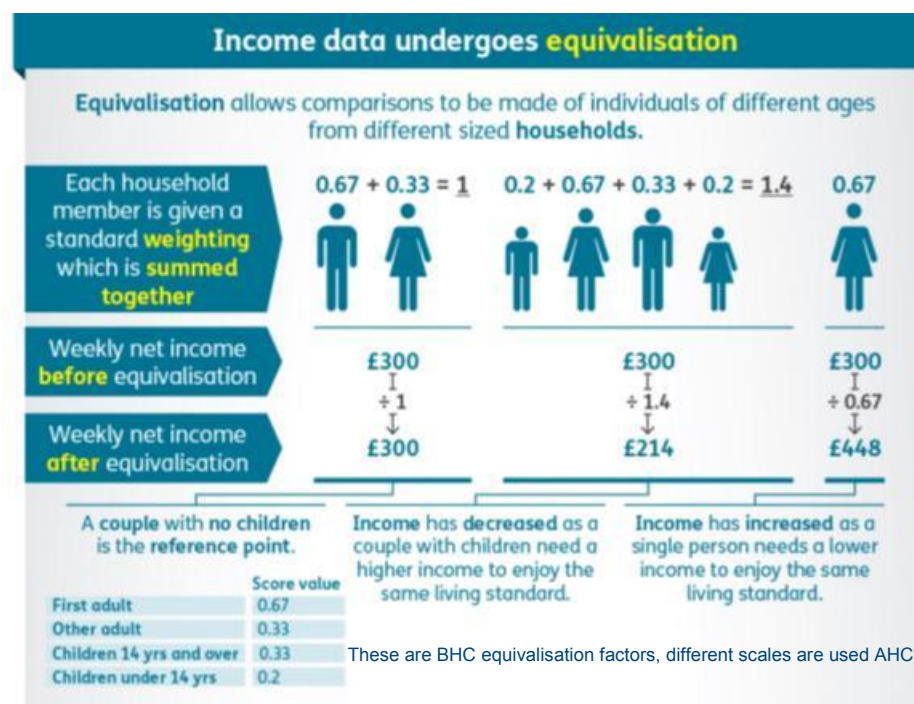
BHC income is often used for non-pensioner analysis and is net of the following:

- income tax payments and National Insurance contributions
- council tax

AHC income is derived by deducting housing costs calculated from mortgage and rent amounts from the BHC income measure. It is often used for pensioner analysis.

A household income measure implicitly assumes that all members of the household benefit equally from the household's income and so appear at the same position in the income distribution.

Equivalisation An adjustment is made to income to make it comparable across households of different size and composition. For example, this process of equivalisation would adjust the income of a single person upwards, so their income can be compared directly to the standard of living for a couple.



Low income This is defined for this publication as an individual in a household with an equivalised household income of less than 60 per cent of median income. A household in is **persistent low income** if they are in low income for at least three of the last four survey periods.

Inflation is the speed at which the prices of goods and services rise or fall. ID uses a CPI-based adjustment, also used in Households Below Average Income, to compensate for the effects of inflation over time.

About these statistics

NATIONAL STATISTICS STATUS

National Statistics status means that official statistics meet the highest standards of trustworthiness, quality and public value.

Income Dynamics is currently an [experimental statistical](#) series, which means it is not currently assessed as a National Statistic, as it is in the testing phase and not yet fully developed.

National, Official and Experimental Statistics are produced in accordance with [Statistics and Registration Service Act 2007](#), signifying our commitment to comply with the [Code of Practice for Statistics](#). Further information about National, Official and Experimental Statistics status can be found in the Code [glossary](#).

Official and Experimental Statistics are awarded National Statistics status following an assessment by the Office for Statistics Regulation. The Office for Statistics Regulation considers whether the statistics meet the highest standards of Code compliance, including the value they add to public decisions and debate.

Where to find out more

Further outputs and reference tables from Income Dynamics analysis, alongside our ID Background information and methodology, giving further detail on how we estimate the measures reported here are available via the following link:

<https://www.gov.uk/government/statistics/income-dynamics-2015-to-2016>

Estimates of numbers in low income in a single year from Households Below Average Income can be found at:

<https://www.gov.uk/government/collections/households-below-average-income-hbai--2>

ONS produce a National Statistics series on persistent low income based on EU-SILC data. This is based on a different data source (the Survey of Living Conditions) and has a different definition of persistent low income. See Background information and methodology for further details:

<https://www.ons.gov.uk/peoplepopulationandcommunity/personalandhouseholdfinances/incomeandwealth/articles/persistentpovertyintheukandeu/2015>

ONS guidance on alternative sources of data on earnings and income is available at the following link and provides useful information to contextualise the ID statistics:

<https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/earningsandworkinghours/methodologies/aquidetosourcesofdataonearningsandincome>

Other National and Official Statistics

Details of other National and Official Statistics produced by the Department for Work and Pensions can be found on the DWP website with a schedule of statistical releases over the next 12 months and a list of the most recent releases at: <https://www.gov.uk/government/organisations/department-for-work-pensions/about/statistics>

In accordance with the Code of Practice for Statistics, all DWP National Statistics are also announced at: <https://www.gov.uk/government/statistics/announcements>

Feedback

DWP are seeking [feedback](#) from users to inform future ID publications. To give us your views, please complete a questionnaire by 29 June 2018.