

Article

Admin-based income, England and Wales: tax year ending 2016 revised results

Experimental small area estimates of gross and net income using data from HM Revenue and Customs' (HMRC) Pay As You Earn (PAYE), Self-Assessment and the Department for Work and Pensions' (DWP) benefit systems.

Contact:
Samantha Pendleton
Admin.Based.
Characteristics@ons.gov.uk
+44 (0)13294 44992

Release date:
23 June 2021

Next release:
To be announced

Notice

23 June 2021

The [previous article](#) in this series is located in a different area of the website.

Table of contents

1. [Main points](#)
2. [About our transformation research](#)
3. [What do the admin-based income statistics show for individuals?](#)
4. [What do the admin-based income statistics show for occupied addresses \(households\)?](#)
5. [Admin-based income statistics \(ABIS\) comparison with survey-based gross household income data: effects of taxes and benefits \(ETB\) and households below average income \(HBAI\)](#)
6. [Admin-based income statistics data](#)
7. [Glossary](#)
8. [Data sources and quality](#)
9. [Related links](#)

1 . Main points

- These improved admin-based income statistics (ABIS) complement existing national statistics on income, providing greater granularity of information on a range of characteristics, including age and region.
- These statistics now include incomes of the self employed; however, there are still conceptual limitations and data gaps that need to be taken into account when assessing trends.
- Coverage in the ABIS income data is poorer for young people (16 to 20 years), but from 25 years onwards over 90% of individuals, for both sexes, have some income information in ABIS.
- 98.4% [of occupied addresses](#) (households) on our [population base \(admin based population estimates \(ABPE\) V3.0\)](#) have income information from at least one of our admin income sources.
- Although high, these coverage figures must be interpreted within the context of the known undercoverage in the ABIS income measure and [undercoverage in the population base](#).
- When compared with the survey-based household income data (adjusted for comparability with ABIS) at the region level, the ABIS generally produce lower estimates at the median, 10th and 90th percentiles.
- We intend to carry out further work to investigate the differences between the ABIS income measure and the survey-based income measures in the future.

These admin-based income statistics (ABIS) are [Experimental Statistics](#). These statistics have limited use for decision-making, as both the income measure and coverage are currently incomplete. If you use this data please include the experimental statistics label in your output. The [small area income estimates](#) are the official estimates of household income for small areas.

2 . About our transformation research

Why are these statistics being produced?

The [2021 Census topic consultation](#) identified a user need for small-area multivariate income statistics. As testing had shown that collecting these data through the census would have a negative impact on response rates and created concerns about data accuracy, we did not recommend inclusion in the census. These admin-based income statistics (ABIS) update our [previous research](#) to understand how administrative data sources (Pay As You Earn (PAYE), Self-Assessment and benefit data), can be used to fill this gap.

The ABIS also assess whether administrative data sources can be used to meet the income definitions agreed in the [Canberra Group Handbook on Household Income Statistics \(PDF, 11.2MB\)](#).

ABIS could be used to produce enhanced income outputs for the 2021 Census, or income outputs with an administrative data population base (the analysis presented in this publication).

What is new in this research?

This publication [updates ABIS](#) to include income from self-employment. We have published research describing [how we have derived this experimental measure of self-employment income from HMRC's Self-Assessment](#).

This publication uses a new population base, moving from the [Statistical Population Dataset \(SPD\) V2.0 for 2016](#) to the [Admin Based Population Estimates \(ABPE\) V3.0 for 2016](#).

How well do these statistics meet the target definitions of income?

ABIS does not include all [components of gross income included in the Canberra handbook definition](#).

Components not included are:

- income (earnings and pensions) from an employer not paid through PAYE
- investment income, including income from property, dividends and interest from Individual Savings Accounts and other saving accounts, bonds, stocks and shares
- some state support benefits including Universal Credit and Personal Independence Payment
- current transfers, for example, parental contributions, child maintenance payments and educational grants

Incomes received via the Self Assessment Short Tax Return form (SA200) have not been included in ABIS; however, initial analysis suggests that the inclusion of SA200 data will not impact the findings within this report. SA200 forms are issued directly by HMRC in certain cases whereby an individual's tax affairs are simple. The aim is to incorporate SA200 data in the future, as we continue to develop the ABIS. More information on how we have derived self-employment income from Self Assessment can be found within [Measuring self-employment income using administrative data: tax year ending 2016](#).

The glossary outlines the [Canberra Handbook \(PDF, 11.2MB\)](#) components of income included in the ABIS income measure.

We are working with experts across the Government Statistical Service including the Department for Work and Pensions (DWP) and HM Revenue and Customs (HMRC), to develop a coherent approach to producing harmonised income measures.

What are the other limitations?

Because of the improvements listed above, this publication is not comparable with previous ABIS research. The impact of adding self-employment income cannot be isolated, because of concurrent changes to the population base and DWP's National Benefits Database (NBD). This publication uses a different version of the NBD which has altered our ability to view changes in amounts claimed through benefits over time; these amounts may differ from [those used previously](#).

What is the population base used?

Our population base is the [admin based population estimates \(ABPE\) V3.0 for 2016](#), which allows us to link data at record level. Only individuals and households present on the ABPE are included in ABIS.

The [quality of the population base](#) will impact the quality of the ABIS outputs. More information about the coverage of the population base can be found in [Population and migration statistics system transformation – recent updates: evaluating coverage and quality in the admin-based population estimates](#).

To improve comparability with [survey-based measures of household income](#), communal establishments are excluded from ABIS.

3 . What do the admin-based income statistics show for individuals?

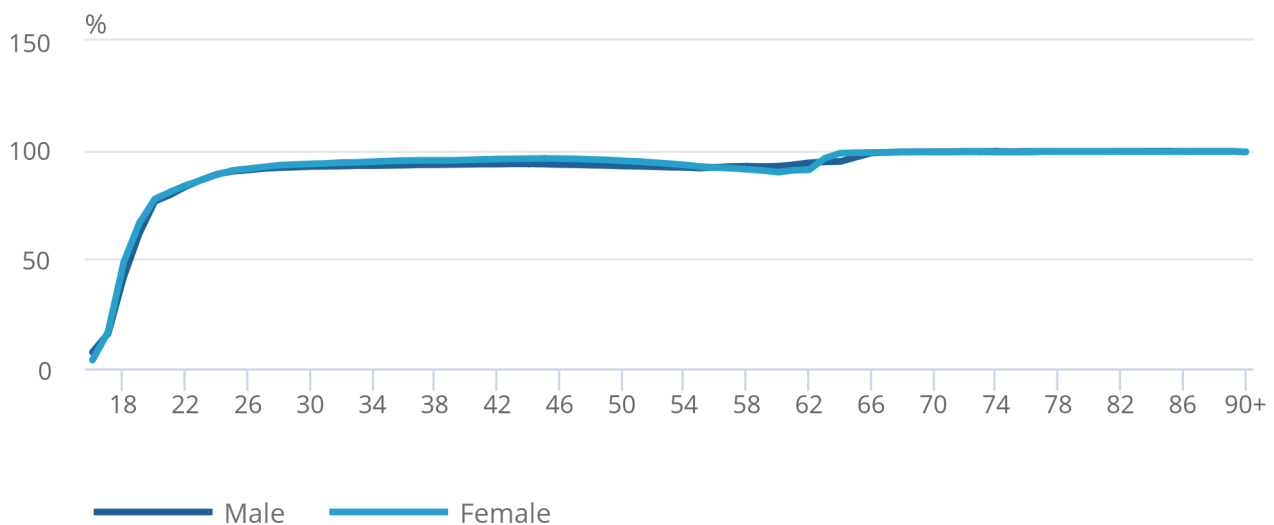
Net individual Pay as You Earn (PAYE), self-employment derived from Self-Assessment, and benefits income by age and sex

Figure 1: Percentage of individuals with some PAYE, self-employment derived from Self-Assessment and benefits income information

By age and sex, men and women aged 16 years and over, England and Wales, tax year ending 2016

Figure 1: Percentage of individuals with some PAYE, self-employment derived from Self-Assessment and benefits income information

By age and sex, men and women aged 16 years and over, England and Wales, tax year ending 2016



Source: Office for National Statistics

Notes:

1. These admin-based income statistics are experimental and should not be used as an indicator of poverty or living standards. Rather they are published to demonstrate the feasibility of producing income statistics using a different methodology to that currently used in the production of income statistics.
2. Data Source: Pay As You Earn (PAYE) employment and pension data, self-assessment self-employed and partnership data, child benefit data and tax credits data from HM Revenue and Customs and benefits data from the Department for Work and Pensions. As these Experimental Statistics are limited to these data sources, some components of income are not included, for example investment income.
3. Only individuals and households present on the population base (Admin Based Population Estimate (ABPE) V3) were included in these statistics.

90.5% of individuals aged 16 years and over in England and Wales (on our [population base, ABPE V3.0](#)) have income information from at least one source in the admin-based income statistics (ABIS) income measure.

Figure 1 shows how ABIS coverage varies by age and sex. Coverage increases for both sexes from below 10% at age 16 years, to over 90% by age 25 years, remaining over 90% after this age.

Lower coverage for younger ages may be because of the higher proportions of young people in full-time education. The increase in coverage from age 21 years onwards for both sexes would be expected, as individuals typically finish education and move into the labour market.

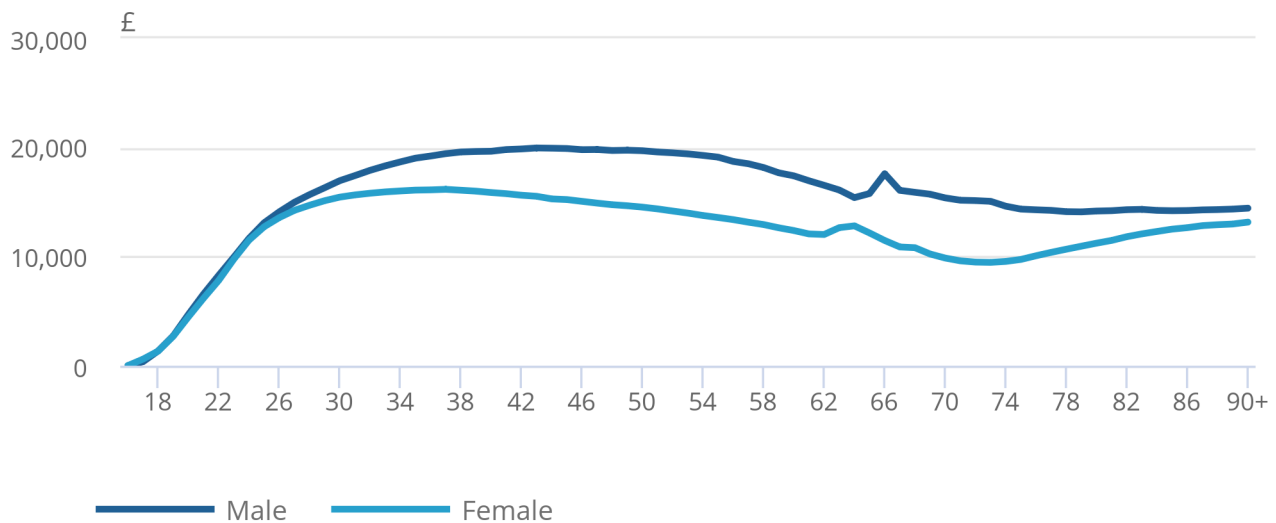
Coverage remains stable during working ages, with the proportion of coverage similar for men and women. Coverage rises slightly at State Pension age, because of the inclusion of State Pension income in ABIS. During 2015 to 2016, State Pension age was 63 years for women and 65 years for men.

Figure 2: Median net PAYE, self-employment derived from Self-Assessment and benefits income

By age and sex, men and women aged 16 years and over, England and Wales, tax year ending 2016

Figure 2: Median net PAYE, self-employment derived from Self-Assessment and benefits income

By age and sex, men and women aged 16 years and over, England and Wales, tax year ending 2016



Source: Office for National Statistics

Notes:

1. These admin-based income statistics are experimental and should not be used as an indicator of poverty or living standards. Rather they are published to demonstrate the feasibility of producing income statistics using a different methodology to that currently used in the production of income statistics.
2. Data Source: Pay As You Earn (PAYE) employment and pension data, self-assessment self-employed and partnership data, child benefit data and tax credits data from HM Revenue and Customs and benefits data from the Department for Work and Pensions. As these Experimental Statistics are limited to these data sources, some components of income are not included, for example investment income.
3. Only individuals and households present on the population base (Admin Based Population Estimate (ABPE) V3) were included in these statistics.

After tracking each other closely (Figure 2), median net income for men and women begins to diverge at age 28, with income for men rising faster and peaking later. Median net income peaks at £19,951 at 43 years for men, and £16,161 at 37 years for women. Our Annual Survey of Hours and Earnings for all employees in 2016 found pay [to be 18.1% higher for men than for women](#).

A second, smaller, peak occurs around State Pension ages (63 years for women, 65 years for men). We see an increase in coverage from our income components at these ages, with 83% of men and 60% of women receiving both State Pension income and income paid through Pay as You Earn (PAYE). PAYE can include pension income as well as earnings. In the PAYE variable used for ABIS, we are unable to distinguish between pension and salary payments. We hope to move to a more granular PAYE supply in future that would allow us to distinguish between these payments and explore this further.

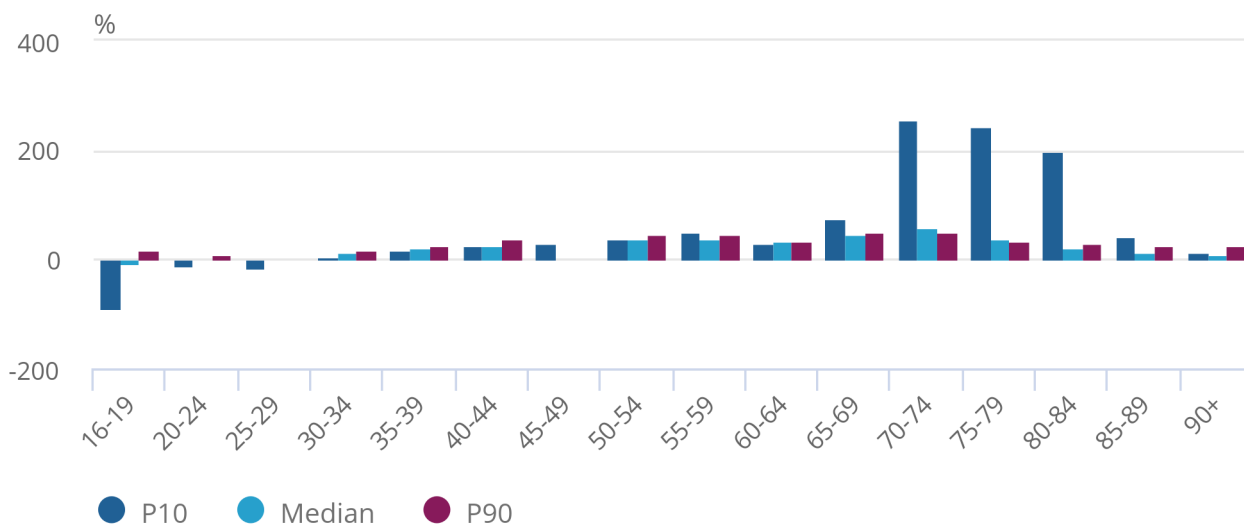
After this second peak, median income for women declines up to age 73 years before rising again. For men, median income declines from State Pension age until 79 years, before a gradual increase is seen. This late increase for both sexes may reflect individuals who outlive their spouses and inherit their income¹.

Figure 3: Percentage difference between women and men in net PAYE, self-employment derived from Self-Assessment and benefits income at the 10th percentile, median and 90th percentile

By five-year age group, England and Wales, tax year ending 2016

Figure 3: Percentage difference between women and men in net PAYE, self-employment derived from Self-Assessment and benefits income at the 10th percentile, median and 90th percentile

By five-year age group, England and Wales, tax year ending 2016



Source: Office for National Statistics

Notes:

1. These admin-based income statistics are experimental and should not be used as an indicator of poverty or living standards. Rather they are published to demonstrate the feasibility of producing income statistics using a different methodology to that currently used in the production of income statistics.
2. Data Source: Pay As You Earn (PAYE) employment and pension data, self-assessment self-employed and partnership data, child benefit data and tax credits data from HM Revenue and Customs and benefits data from the Department for Work and Pensions. As these Experimental Statistics are limited to these data sources, some components of income are not included, for example investment income.
3. Only individuals and households present on the population base (Admin Based Population Estimate (ABPE) V3) were included in these statistics.

Figure 3 displays the percentage difference between percentiles of net income for men and women at the median, 10th and 90th percentiles (expressed as a percentage of income for women). A percentage above zero means that men's incomes are higher than women's.

Overall men generally have greater income than women. This difference in incomes increases during working ages (20 to 24 years to 55 to 59 years), before a decrease at 60 to 64 years, reflecting women's younger State Pension age. The difference decreases again from ages 70 to 74 years onwards.

Net income for men is considerably greater than for women in the 10th percentile between ages 70 to 84 years. Reasons for the differences within this group include:

- within the 10th percentile, for over 90% of people in the 65 years and over age groups, State Pension is the highest contributor to their total income
- the average State Pension amount received by men in this group is double that received by women, suggesting more men are qualifying for a full State Pension
- men received more components of income (including PAYE, self-employed income, housing benefit and pension credit) than women, from age 65 years onwards.
- the 75 to 79 years and 80 to 84 years age groups showed a percentage point difference between men and women in receipt of PAYE² income of over 50%
- mean income for men in the 10th percentile between ages 70 to 84 years was also generally higher than women for each component of income received

This gap in income between men and women in the 10th percentile decreases considerably from age 85 years onwards. This may be because of women outliving male partners and inheriting their income. Within this group, the number of women aged 85 years and over is over 50% greater than the number of men aged 85 years and over.

Geographical analysis of net individual PAYE, self-employment income derived from Self-Assessment and benefits income

Figure 4: Percentage of individuals with PAYE, self-employment derived from Self-Assessment and benefits income information

Lower Layer Super Output Area (LSOA), England and Wales, tax year ending 2016

[Download the data](#)

Figure 4 shows that coverage at Lower layer Super Output Area (LSOA) level is varied. However, 95% of LSOAs in England and Wales have income information, from at least one source, for more than 82.5% of individuals.

Reasons for an LSOA having a high percentage of individuals with no income coverage in the ABIS might include:

- a large student population: student loans and maintenance grants are not included in ABIS – only students receiving income via PAYE, Self-Assessment or benefits will have income coverage; 47.9% of students have income information in ABIS compared with 90.5% of the total population
- a high proportion of Universal Credit claimants – Universal Credit data are absent from the ABIS coverage³

Figure 4 describes individuals who were in our population base (admin based population estimates (ABPE) V3.0) but did not have any income information in our admin data sources. It does not cover individuals who were not present in the ABPE V3.0 (ABPE undercoverage).

ABPE V3.0 undercoverage is explored in detail using linkage to the 2011 Census, within [Measuring and adjusting for coverage patterns in the admin-based population estimates, England and Wales: 2011](#). This is a summary:

- of the 2.9 million records known to be ABPE undercoverage, 1.4 million are shown on their Census record as employees
- Around 850,000 of the ABPE undercoverage records are self-employed
- 614,000 (21%) of the undercoverage records were not working, of whom around 30% were inactive because of looking after home and family and around 20% were students
- the rest were not working but not showing sufficient activity in admin data to meet ABPE inclusion rules, that is, unemployed but not claiming benefits
- the largest undercoverage of ABPE V3 compared with V2 is for 18- to mid-20-year-olds, particularly for men, who are in further education, casual employment or starting work in the gig economy so won't show activity in admin sources
- these undercoverage patterns within the ABPE V3.0 suggest that our ABIS analysis may be missing some low income groups

Figure 5: Net individual PAYE, self-employment derived from Self-Assessment and benefits income

By region, England and Wales, tax year ending 2016

[Download the data](#)

The median net ABIS income for individuals in England and Wales was £14,242. London had the highest median income and the widest distribution of income. The highest 90th percentiles were in London, East and South East England. The 10th percentiles were similar across regions.

Figure 6: Median net individual PAYE, self-employment derived from Self-Assessment and benefits income

By LSOA, England and Wales, tax year ending 2016

[Download the data](#)

Figure 6 allows exploration of median net individual PAYE, self-employment derived from Self-Assessment and benefits income by LSOA.

Notes for: What do the admin-based income statistics show for individuals?

1. The mean age of death in the UK between 2016 and 2018 was 79.3 years for men and 82.9 for women.
2. PAYE income includes all income paid through PAYE system. This includes pension income paid through PAYE. Unfortunately we are currently unable to distinguish between employment and pension income within this variable.
3. Universal Credit was introduced during the 2013 to 2014 tax year. The roll out was geographically limited. During the 2015 to 2016 tax year, the number of Universal Credit claimants rose from around 50,000 to around 200,000. Despite this increase, the staggered roll out means the impact on the ABIS for tax year ending 2016 is expected to be small.

4 . What do the admin-based income statistics show for occupied addresses (households)?

When referring to household income, the ABIS are actually referring to income at an address . The differences between a traditional “household” and an “occupied address” are discussed in the [Occupied address research output](#).

Geographical analysis of net equivalised occupied address (household) PAYE, Self-Assessment, and benefits income

Figure 7: Percentage of households with net PAYE, self-employment derived from Self-Assessment and benefits income information

By LSOA, England and Wales, tax year ending 2016

[Download the data](#)

Figure 7 allows you to explore the percentage of households in each LSOA with PAYE, self-employment derived from Self-Assessment and benefits income information.

95% of LSOAs in England and Wales had some income information for at least 93% of households.

98.4% of all households in England and Wales had some income information, but only 89% of households had income information for all adults.

Figure 8: Equivalised net household PAYE, self-employment derived from Self-Assessment and benefits income

By region, England and Wales, tax year ending 2016

[Download the data](#)

The median net equivalised household income for England and Wales was £26,150 (Figure 8). The trends are similar to those for individual income (Figure 5), with the highest median incomes in London and South East England and the widest distribution of incomes in London.

Figure 9 allows users to explore median net equivalised household income at LSOA level.

Figure 9: Median net equivalised household PAYE, self-employment derived from Self-Assessment and benefits income

By LSOA, England and Wales, tax year ending 2016

[Download the data](#)

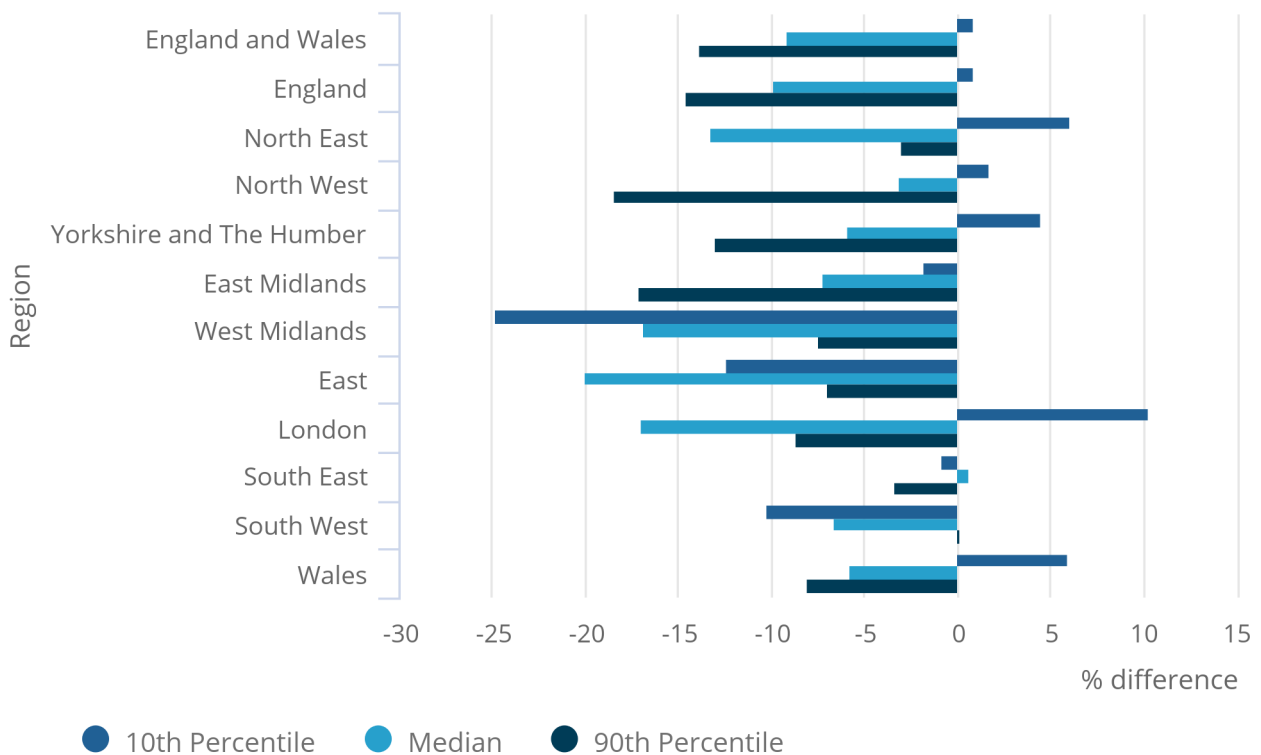
5 . Admin-based income statistics (ABIS) comparison with survey-based gross household income data: effects of taxes and benefits (ETB) and households below average income (HBAI)

Figure 10: Percentage differences between ABIS's and ETB's 10th percentile, median and 90th percentile gross equivalised household income figures

By region, England and Wales, tax year ending 2016

Figure 10: Percentage differences between ABIS's and ETB's 10th percentile, median and 90th percentile gross equivalised household income figures

By region, England and Wales, tax year ending 2016



Notes:

ETB Notes:

1. Our [Effects of taxes and benefits on UK household income bulletin](#) is based on the Living Costs and Food Survey (LCF) of around 5,000 UK households.
2. The ETB data is equivalised, gross household income.
3. The ETB data has been adjusted to remove income from investment and Personal Independence Payment to align more closely with the coverage of the ABIS income measure.
4. The ETB figures are not SPI adjusted. ETB has not previously published SPI adjusted income deciles by region. The ETB team aim to develop SPI adjusted versions of these estimates in the future.
5. A three-year average is presented of ETB data from tax years ending 2015, 2016 and 2017, with annual incomes in 2015 to 2016 prices.
6. The ETB data presented here are not comparable with the published ETB National Statistics and cannot be used for independent ETB analysis. The ETB figures presented here are specific to this partial income concept, developed to correspond more closely with the ABIS.

ABIS Notes:

1. The ABIS data is equivalised, gross household income.
2. These admin-based income statistics are experimental and should not be used as an indicator of poverty or living standards. Rather they are published to demonstrate the feasibility of producing income statistics using a different methodology to that currently used in the production of income statistics.
3. Data Source: Pay As You Earn (PAYE) employment and pension data, self-assessment self-employed and partnership data, child benefit data and tax credits data from HM Revenue and Customs and benefits data from the Department for Work and Pensions. As these Experimental Statistics are limited to these data sources, some components of income are not included, for example, self-employment and investment income.
4. Only individuals and households present on the population base (Admin Based Population Estimate (ABPE) V3) were included in these statistics.

- The ABIS and ETB figures used in Figure 10 are both rounded to the nearest £100

Figure 10 shows that the ABIS income measure is mostly lower than ETB at the median and 90th percentile, but ABIS is higher at the 10th in several regions (A negative percentage means that ABIS incomes are lower than ETB). ABIS include administrative data for most benefits; components of income which have the most impact on lower-income households (the 10th percentile). It is acknowledged that there is [underreporting of benefits income in ETB](#). As a result, it may be that the ABIS administrative data is recording more benefit income than ETB.

Figure 11: Percentage differences between ABIS's and HBAI's 10th percentile, median and 90th percentile of gross equivalised household income

By region, England and Wales, tax year ending 2016

Figure 11: Percentage differences between ABIS's and HBAI's 10th percentile, median and 90th percentile of gross equivalised household income

By region, England and Wales, tax year ending 2016



Notes:

HBAI Notes:

1. Income definition: is gross, SPI'd*, deflated**, equivalised*** household income less gross household investment income.
2. Zero or negative incomes are excluded. Many of these will just be in receipt of investment income or have negative self-employment income (i.e. loss).
3. No further adjustments are made, e.g. to benefits income to bring into line with admin data availability.
4. Time Period: data corresponds to three year average of 2014/15-2016/17, with annual incomes in 2015/16 prices so it is consistent with admin data.
5. The HBAI data presented here are not comparable with the published HBAI National Statistics and cannot be used for independent HBAI analysis. The HBAI figures presented here are specific to this partial income concept, developed to correspond more closely with the ABIS.

*SPI'd: Highest incomes are adjusted using HMRC's Survey of Personal Incomes (SPI)

**Deflated: Incomes are deflated from the month of the Family Resources Survey (FRS) questionnaire to the average of the survey year.

***Equivalised: Incomes are equivalised using the modified OECD scale.

ABIS Notes:

1. The ABIS data is equivalised, gross household income.
2. These admin-based income statistics are experimental and should not be used as an indicator of poverty or living standards. Rather they are published to demonstrate the feasibility of producing income statistics using a different methodology to that currently used in the production of income statistics.
3. Data Source: Pay As You Earn (PAYE) employment and pension data, self-assessment self-employed and partnership data, child benefit data and tax credits data from HM Revenue and Customs and benefits data from the Department for Work and Pensions. As these Experimental Statistics are limited to these data sources, some components of income are not included, for example, self-employment and investment income.
4. Only individuals and households present on the population base (Admin Based Population Estimate (ABPE) V3) were included in these statistics.

- The ABIS and HBAI figures used in Figure 11 are both rounded to the nearest £100

Figure 11 shows the ABIS income measure is lower than HBAI at the median, 10th and 90th percentile, with the exception of the North East region, where the ABIS 90th percentile is greater, although by only 0.21%. The difference between ABIS and HBAI decreases as you move up the income distribution.

There are differences between ABIS, ETB and HBAI that may explain why our ABIS income measure is lower than the survey-based measures:

- our [self-employment income analysis](#) found that when linking Living Costs and Food Survey (LCF) and Self-Assessment records, 75% reported a higher self-employment income in the LCF than in Self-Assessment
- the mean difference for those reporting a higher self-employment income via Self-Assessment was £8,080
- so, it is likely that the self-employed income components within ABIS are lower than those in the survey-based measures
- this analysis also found that Self-Assessment data captures more small income values when compared with the ETB measure
- the ABIS income measure is missing Universal Credit and Personal Independence Payment: components of income that also mostly affect incomes at the bottom of the distribution
- ABIS uses more imputation when assigning income from DWP benefits, than when assigning income from other sources. This may introduce error predominantly affecting incomes towards the bottom of the distribution
- these influences may partly explain why the difference between ABIS and HBAI is greater at the bottom of the distribution
- as discussed in [Section 4](#), ABIS uses [occupied addresses](#), which are not the same as the private households used in HBAI and ETB
- we intend to carry out further work in future to investigate the differences that we are seeing between the ABIS income measure and the survey-based income measures

6 . Admin-based income statistics data

[Net individual PAYE, Self-Assessment, and benefits income](#)

Dataset | Released 23 June 2021

Administrative data-based PAYE, Self-Assessment and benefits gross and net income deciles for individuals. England and Wales; Regions, local authorities and Lower layer Super Output areas (LSOAs).

[Net household PAYE, Self-Assessment, and benefits income](#)

Dataset | Released 23 June 2021

Administrative data-based PAYE, Self-Assessment and benefits gross and net income deciles for households (occupied addresses). England and Wales; Regions, local authorities and Lower layer Super Output Areas (LSOAs).

7 . Glossary

Target gross income

Our target definitions of gross and disposable income are the internationally agreed definitions outlined in the [United Nations Canberra Group Handbook \(PDF, 11.2MB\)](#). The aim of this research is to ascertain the extent to which administrative data can meet these target definitions.

Components of gross income included in the target definition are:

- income from employment (which includes employee income and income from self-employment)
- property income (which includes investment income from both financial and non-financial assets)
- current transfers received (which includes social security schemes and pensions)

Target disposable income

Components deducted from gross income to calculate disposable income in the target definition are:

- direct taxes (for example, Income Tax and Council Tax)
- social insurance contributions (for example, National Insurance)
- current transfers paid (including transfers between households such as child maintenance and to non-profit institutions such as regular charity donations)
- compulsory fees and fines (for example, county court judgement)

ABIS gross income

Components of income covered by the administrative data and included in these admin-based income statistics (ABIS) are:

- gross earnings (net of employee and employer pension contributions) from employment, including any bonuses, shares offered as remuneration, and all other benefits-in-kind paid through Pay As You Earn (PAYE)
- [income from self-employment via HMRC Self-Assessment](#)
- social security pensions schemes (State Pension and pensions paid via PAYE are captured)
- social assistance benefits (excluding social transfers in kind). Most received. See below breakdown
- taxable current transfers
- tax-free current transfers
- income from occupational and personal pensions processed through the PAYE system

Taxable current transfers are:

- State Pension
- Jobseekers Allowance
- Carer's Allowance
- Employment and Support Allowance (contribution based)
- Incapacity Benefit
- Bereavement Allowance
- Widowed Mother's/Parent's Allowance
- Widow's Pension
- Child Benefit (if income of either claimant or partner between £50,000 and £60,000)
- Statutory Sick Pay
- Statutory Maternity/Paternity/Adoption Pay

Tax-free current transfers are:

- Housing Benefit
- Child Benefit (so long as incomes of both claimant and partner are both below £50,000)
- Employment and Support Allowance (income related)
- Income Support (unless involved in a strike)
- Tax Credits
- Disability Living Allowance
- Attendance Allowance
- Pension Credit
- Winter Fuel Payment (imputed rather than directly from admin data)
- Christmas Bonus (imputed rather than directly from admin data)
- Severe Disablement Allowance
- Bereavement Payment
- Widow's Payment

Components of gross income included in the international definition of gross income (as defined in the [Canberra Group Handbook \(PDF, 11.2MB\)](#)), but not included in the ABIS income measure, are:

- income from an employer not paid through PAYE
- investment income including income from property and interest from Individual Savings Accounts (ISAs) and other saving accounts, bonds, stocks and shares
- some taxable current transfers
- some tax free current transfers

Some taxable current transfers include:

- Pensions paid by industrial death benefit scheme
- Guaranteed income payment (armed forces compensation scheme)

Some tax free current transfers include:

- Universal Credit
- Council Tax Reduction
- Personal Independence Payment
- Free TV licence
- Maternity Allowance
- Industrial injuries disablement benefit
- War Widow's Pension
- Maternity Grant (social fund - sure start maternity grant)
- Funeral Payment (social fund - funeral grant)
- Social Fund - Community Care Grant
- Cold Weather Payment
- Reduced Earnings Allowance
- Constant Attendance Allowance
- Exceptionally Severe Disablement Allowance (linked to Constant Attendance Allowance)
- Bereavement Support Payment
- Retirement Allowance (replaces Reduced Earnings Allowance pension age is reached)
- Disabled Students Allowances
- Armed Forces Independence Payment
- Armed Forces Compensation Scheme - lump sum payment
- Free school meals
- Free school fruit and vegetables
- Healthy Start vouchers

Other current transfers received include:

- current transfers from other households
- parental contributions
- child maintenance payments
- educational grants
- current transfers from non-profit institutions

Incomes received via the Self Assessment Short Tax Return form (SA200) have not been included in ABIS; however, initial analysis suggests that the inclusion of SA200 data will not impact the findings within this report. SA200 forms are issued directly by HMRC in certain cases whereby an individual's tax affairs are simple. The aim is to incorporate SA200 data in the future, as we continue to develop the ABIS. More information on how we have derived self-employment income from Self Assessment can be found within [Measuring self-employment income using administrative data: tax year ending 2016](#).

We hope to include some of these income components in the future as the availability of administrative data increases.

Student loans

Student loans are not included in the current target income definition. As a result, student loans are also not included in the ABIS gross income measure. If receipt of student loans was to be included in the income measure, student loan repayments would also need to be deducted from the measure.

If you have a requirement for student loans to be included in the income measure, please let us know by emailing Admin.Based.Characteristics@ons.gov.uk

ABIS net income

The admin-based income statistics (ABIS) net income measure is calculated by deducting Income Tax, Class 1, Class 2 and Class 4 National Insurance contributions from the gross income measure described above (which is already net of pension contributions).

We do not have an administrative data source of housing costs and so the ABIS net income measure does not deduct any housing costs.

Equivalisation

To increase comparability between different types of household, the ABIS occupied address (household) income estimates are adjusted to account for differences in household size and composition. This process is referred to as [equivalisation](#). The equivalisation scale used by ABIS is the Organisation for Economic Co-operation and Development modified, rescaled to use an adult couple household with no children as the reference group. This equivalisation is before housing costs.

This scale is aligned with the equivalisation method used by the Office for National Statistics' [Effects of taxes and benefits on household income \(ETB\) QMI](#) and Department for Work and Pensions [Households below average income](#) publication.

For more information on our equivalisation methodology, please refer to the [methodology section of our previous publication](#).

Unit of analysis

We look at the at the distribution of household income after it has been equivalised. There are two ways of doing this - using the household as the unit of analysis, or using the individual. ABIS household income statistics are presented using the individual as the unit of analysis, meaning that household income percentiles are derived by ordering people, rather than households. For more information on the differences between these two approaches please see our [previous publication](#).

8 . Data sources and quality

How are these statistics produced?

Six administrative datasets were linked, using a combination of a unique identifier created by the Department for Work and Pensions¹ and National Insurance Number, to derive an annual gross income figure for each individual.

These datasets were:

- HM Revenue and Customs (HMRC's) Self-Assessment data
- HMRC's Tax Credit data
- HMRC's PAYE data
- HMRC's Child Benefit data
- Department for Work and Pensions' (DWP) National Benefits Database (NBD)
- DWP's Single Housing Benefit Extract (SHBE)

This linked income dataset was then linked to the [Admin Based Population Estimates \(ABPE\) V3.0 for 2016](#) using the unique DWP ID. Income records that did not link to the admin based population estimates (ABPE) were dropped.

Income information from each of the six datasets were totalled to derive an estimate of gross annual income for each individual.

This gross figure included Winter Fuel Payments and Christmas Bonus amounts, which were derived using demographic information on the ABPE V3.0 and the National Benefits Database (NBD).

The net income measure was calculated by deducting Income Tax, Class 1, Class 2 and Class 4 National Insurance contributions from the gross income measure described previously (which is already net of pension contributions).

Income Tax, Class 1, Class 2 and Class 4 National Insurance contributions were estimated using the standard tax and National Insurance thresholds for the tax year ending 2016, and the age-dependent personal allowance.

Other payments, such as Council Tax, child maintenance or parental contributions, were not deducted. Other allowances, such as Marriage Allowance and Blind Person's Allowance, were also not taken into consideration.

In the future, our intention is to use additional administrative data sources to allow for a more accurate calculation of Income Tax and National Insurance contributions.

Access to additional data sources will also allow other taxes, such as Council Tax, to be deducted. These developments will help move the ABIS towards a more complete measure of disposable income before housing costs.

To calculate household income, the concept of an "occupied address" has been used. More information on the differences between a traditional "household" and an "occupied address" is available in the [Occupied Address Research Outputs](#) publication.

Income information for individuals at the same unique property reference number(UPRN)² was totalled to calculate an un-equivalised household income figure. Household income was then [equivalised](#) (all household members, including people aged under 16 years were included when equivalising), and percentiles of household income were produced using individuals as the [unit of analysis](#).

Feedback

As these are Experimental Statistics, we welcome feedback on how we might improve these statistics to meet user needs. Please email your feedback to Admin.Based.Characteristics@ons.gov.uk

Notes for: Data sources and quality

¹ 2% of individuals did not have this linkage key and were excluded from the analysis.

² A unique property reference number (UPRN) is a unique alphanumeric identifier for every spatial address in Great Britain and can be found in Ordnance Survey's address products.

9 . Related links

[Measuring self-employment income using administrative data](#)

Research article | Released 23 June 2021

Research using HMRC's Self-Assessment data to produce estimates of self-employment income.

[Survey and administrative data comparisons of self-employment income](#)

Research article | Released 23 June 2021

Research comparing ONS' official survey-based estimates and new administrative data-based estimates of self-employment income.

[Effects of taxes and benefits on UK household income: financial year ending 2020](#)

Statistical bulletin | Released 28 May 2021

The redistribution effects on individuals and households of direct and indirect taxation and benefits received in cash or kind, analysed by household type.

[The effects of taxes and benefits on household income, technical report: financial year ending 2020](#)

Technical report | Released 8 June 2021

This technical report is intended to provide further detail on how the effects of taxes and benefits on household income (ETB) estimates are produced. This report also provides further information on the measurement of income inequality.

[Households below average income \(HBAI\) statistics](#)

Report | Released 25 March 2021

DWP publication series which provides statistics and commentary on living standards in UK households, as determined by disposable income. They include the number and percentage of people living in low-income households, and changes in income patterns over time.

[Income estimates for small areas, England and Wales: financial year ending 2016](#)

Statistical bulletin | 25 April 2018

Small area model-based income estimates covering local areas called Middle layer Super Output Areas (MSOAs) in England and Wales.

[Developing our approach for producing admin based population estimates, subnational analysis for England and Wales: 2011](#)

Article | 27 July 2020

A comparison of admin-based population estimates with the 2011 Census at small area level. The data contained in this report are Research Outputs.

[Admin-based income statistics, England and Wales: tax year ending 2016](#)

Article | 14 December 2018

Brings together data from the Pay As You Earn and benefits systems to derive experimental estimates of gross and net income. We're publishing these statistics to demonstrate the progress we're making and ask for your feedback on whether these statistics meet your needs.

[Administrative Data Census Project](#)

Project |

We are investigating the feasibility of moving to a Census based on administrative data after 2021. Learn about our progress and research outputs here.