Annual Survey of Hours and Earnings, 2015 Provisional Results

Coverage: UK
Date: 18 November 2015
Geographical Area: Other
Theme: Labour Market

Main points

• In April 2015 median gross weekly earnings for full-time employees were £528, up 1.8% from £518 in 2014. This follows an annual growth of 0.2% between 2013 and 2014. Growth has been slower since the economic downturn, averaging around 1.5% per year between 2009 and 2015.

• Adjusted for inflation, weekly earnings increased by 1.9% compared to 2014. This is the first increase since 2008, and is due to a combination of growth in average earnings and a low level of inflation.

• For the year ending 5 April 2015 median gross annual earnings for full-time employees were £27,600, an increase of 1.6% from the previous year.

• The gender pay gap for median earnings of full-time employees decreased to 9.4%, from 9.6% in 2014. This is the lowest since the survey began in 1997, although the gap has changed relatively little over the last 4 years. A similar trend is seen when full-time and part-time employees are combined, although the gap is unchanged from 2014, at 19.2%.

• In April 2015 the bottom 10% of full-time employees earned less than £297 per week. At the other end of the distribution, the top 10% of full-time employees earned more than £1,035. Since 1997, earnings at the 90th percentile have remained consistently at around 3.5 times earnings at the 10th percentile.

• Median gross weekly earnings for full-time employees increased by 1.8% in the public sector, and by 1.6% in the private sector. Private sector earnings have remained consistently at around 85% of public sector earnings since 2009.

Introduction
This bulletin presents analyses from the Annual Survey of Hours and Earnings (ASHE), which is our most detailed and comprehensive source of earnings information.

Our headline measure of earnings from ASHE is median weekly earnings for full-time employees. This measure is the main focus of this release, but discussion of mean earnings, hourly earnings, annual earnings and earnings for part-time employees is also included for comparison. Figures are presented in terms of gross pay (that is, before tax, National Insurance and other deductions) in current prices, unless otherwise stated.

This bulletin contains provisional estimates from the 2015 survey. The 2014 estimates have been subject to small revisions since the provisional publication on 19 November 2014. The full suite of reference tables from the 2015 ASHE and from all previous years back to 1997 is available on the ONS website.

An explanation of definitions used in this bulletin and further methodological information can be found in the background notes.

We constantly aim to improve our ASHE outputs and associated commentary. Please contact earnings@ons.gsi.gov.uk with any feedback or questions.

**Average earnings**

In April 2015, median gross weekly earnings for full-time employees were £528, up 1.8% from £518 in 2014. This followed a particularly slow growth between 2013 and 2014 of 0.2%.

Up until 2008, growth was fairly steady, averaging around 4% each year. However, since the start of the economic downturn growth has been slower, with the annual increase averaging around 1.5% per year between 2009 and 2015.

To understand changes in earnings in the context of inflation, historic data are adjusted using the Consumer Prices Index (CPI). This gives a measure of the ‘real’ value of earnings, with a decrease meaning that earnings growth is below inflation.

Adjusted for inflation, weekly earnings increased by 1.9% compared with 2014. This is the first increase since 2008, and is due to a combination of growth in average earnings and a low level of inflation (the CPI fell by 0.1% in the year to April 2015).
Figure 1: Median full-time gross weekly earnings in current and constant (2015) prices, UK, April 1997 to 2015

![Graph showing median full-time gross weekly earnings in current and constant (2015) prices, UK, April 1997 to 2015.]

Source: Annual Survey of Hours and Earnings (ASHE) - Office for National Statistics

Notes:
1. Employees on adult rates, pay unaffected by absence.
2. Full-time defined as employees working more than 30 paid hours per week (or 25 or more for the teaching professions).
3. CPI figures are based on the All Items Consumer Prices Index of inflation for April.
5. 2015 data are provisional.

Download chart

XLS format
(108.5 Kb)

The composition of the workforce and therefore the ASHE sample, changes from year to year, which can affect changes in median earnings. For example, creation of lower paid jobs, or loss of highly-paid jobs, both act to reduce the median. Figure 3 illustrates how this can influence earnings statistics.
One approach to removing these compositional effects is to only look at jobs in which the employee has been in the same post for at least 1 year (termed “continuous employment”). This shows consistently higher growth rates over time (as shown in Figure 2), and in April 2015 median earnings for full-time employees in this group grew by 4.3% compared with April 2014.

Around 80% of the full-time workforce remained in the same job between 2014 and 2015. This group can experience pay increases due to factors such as progression through a pay scale, entitlement to a higher minimum wage, and pay settlements.

The change in median earnings for the continuously employed group shows how much a typical continuously employed person in the current year is earning compared with the typical employee from the same group in the previous period. Care should be taken not to interpret this change as necessarily typical of the change in wages experienced by the majority of the continuously employed group. It should also be noted that the change in median earnings does not mean that half of the continuously employed received an increase in weekly earnings of more than 4.3% and half less than 4.3%. There will be a range of changes in earnings between years for continuously employed individuals. An alternative statistic is to calculate the median for the distribution of increases in earnings.

“Understanding Average Earnings for the Continuously Employed”, published earlier this year, gives information on this alternative measure, along with further guidance on how to interpret these statistics.
Figure 2: Annual percentage change in median full-time gross weekly earnings for all employees and those in continuous employment, UK, April 2005 to 2015

Source: Annual Survey of Hours and Earnings (ASHE) - Office for National Statistics

Notes:
1. The “continuously employed” group is made up of employees who appear in consecutive ASHE samples, have a weekly earnings observation in both periods and are classified by their employer as being in the same job for at least 12 months in the second period.
2. Employees on adult rates, pay unaffected by absence.
3. Full-time defined as employees working more than 30 paid hours per week (or 25 or more for the teaching professions).
4. CPI figures are based on the All Items Consumer Prices Index of inflation for April.
5. 2015 data are provisional.

Download chart

XLS format
(97 Kb)

Figure 3: Entry and exit of employees between time periods can affect the median.
Figure 3: Entry and exit of employees between time periods can affect the median.

Explaining the impact that employees entering and exiting has on comparisons of median earnings

1. The below graphic shows how entry and exit of employees between two time periods can affect the statistics when attempting to compare median earnings and earnings growth between periods.

2. In Year 1 the median earnings is simply the earnings of the middle individual in the earnings distribution. In Year 2 workers entering and exiting will change the distribution of earnings, resulting in the median earnings for all employees and for those continuously employed to be different.

Data below from ASHE 2015

<table>
<thead>
<tr>
<th>Year</th>
<th>Median earnings for all employees (£)</th>
<th>Median earnings for only those in continuous employment (£)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>518</td>
<td>547</td>
</tr>
<tr>
<td>2015</td>
<td>528</td>
<td>571</td>
</tr>
</tbody>
</table>

Median Earnings Growth (%)

<table>
<thead>
<tr>
<th>Year</th>
<th>Growth (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>1.8</td>
</tr>
<tr>
<td>2015</td>
<td>4.3</td>
</tr>
</tbody>
</table>

Comparing all employees in 2014 with all employees in 2015 the growth in median earnings was 1.8%.

When only considering those workers who are present in both years (shown in black above) the growth in median earnings was 4.3%.

Therefore the earnings of the employees entering and exiting will affect the median earnings for the two years and the resultant earnings growth figure. This helps explain why the earnings growth for those in continuous employment is much higher than that of all employees.
Men working full-time earned more than women (£567 per week in April 2015 compared with £471), with both seeing increases in median earnings compared with 2014 (1.5% and 2.1% respectively). The gap between men's and women's earnings has remained relatively consistent from 1997 to 2015 at around £100 (as shown in Figure 4), but this corresponds to a faster rate of increase for women than for men over this period (a 78% increase compared with 59% respectively), meaning that the gap has been closing in percentage terms.

While these results provide a useful measure of earnings trends for men and women, our preferred measure of the “gender pay gap” uses hourly earnings excluding overtime. This is discussed in the gender pay gap section.

Figure 4: Median full-time gross weekly earnings by sex, UK, 1997 to 2015

Source: Annual Survey of Hours and Earnings (ASHE) - Office for National Statistics

Notes:
1. Employees on adult rates, pay unaffected by absence
2. Full-time defined as employees working more than 30 paid hours per week (or 25 or more for the teaching professions).
4. 2015 data are provisional.
Compared with full-time jobs, stronger growth was seen for part-time jobs, with median earnings for part-time jobs increasing by 3.7%, compared with 1.8% for full-time jobs.

Figure 5: Median gross weekly earnings, UK, April 2015

Source: Annual Survey of Hours and Earnings (ASHE) - Office for National Statistics

Notes:
1. Employees on adult rates, pay unaffected by absence.
2. Full-time defined as employees working more than 30 paid hours per week (or 25 or more for the teaching professions).
4. 2015 data are provisional.
Annual earnings (with a median of £27,600) for full-time employees showed an increase (of 1.6%) after last year’s slow growth of (0.8%).

**Figure 6: Median full-time gross annual earnings by sex, UK, 1999 to 2015**

Source: Annual Survey of Hours and Earnings (ASHE) - Office for National Statistics

Notes:
1. Employees on adult rates who have been in the job for more than one year.
2. Full-time defined as employees working more than 30 paid hours per week (or 25 or more for the teaching professions).
3. Earnings for tax year ending 5 April.
5. 2015 data are provisional.

Download chart

![XLS format](109.5 Kb)
Distribution of earnings

Focusing solely on the median hides some interesting trends for low- and high-earning employees. Figure 7 displays the distribution of weekly earnings among full-time employees for the years 1997 to 2015.

For 2015, at the bottom of the distribution, 10% of full-time employees earned less than £297 per week (the 10th percentile), whereas at the other end of the scale 10% earned more than £1,035 per week (the 90th percentile). Each year since 1997 earnings at the 90th percentile have remained consistently at around 3.5 times that of the 10th percentile.

**Figure 7: Distribution of full-time gross weekly earnings, UK, April 1997 to 2015**

Source: Annual Survey of Hours and Earnings (ASHE) - Office for National Statistics

**Notes:**
1. Employees on adult rates, pay unaffected by absence.
2. Full-time defined as employees working more than 30 paid hours per week (or 25 or more for the teaching professions).
4. 2015 data are provisional.
Gender pay differences

While there is no single measure that adequately deals with the complex issue of the differences between men’s and women’s pay, we prefer to use median hourly earnings (excluding overtime). Including overtime can skew the results because men work relatively more overtime than women, and using hourly earnings better accounts for the fact that men work on average more hours than women. The median is less affected by a relatively small number of very high earners than the mean, and therefore gives a better indication of typical pay.

It should be noted that the figures do not show differences in rates of pay for comparable jobs, as they are affected by factors such as the proportion of men and women in different occupations. For example, a higher proportion of women work in occupations such as administration and caring, that tend to offer lower salaries.

Part-time workers – both men and women – earn less, on average, per hour than their full-time counterparts. A much higher proportion of women work part-time, 41%, compared with men, at 11% (source: Labour Force Survey, Quarter 2 (April to June) 2015). This means that the gap for all employees, full-time and part-time together, is higher than for full-time employees alone.

Given the strong influence of the balance between full-time and part-time employees, the majority of detailed analyses in this section are presented for full-time employees alone. Figures for full-time and part-time employees combined are included in the downloadable spreadsheets accompanying the charts.

In April 2015 the gender pay gap based on median earnings for full-time employees decreased to 9.4% from 9.6% in 2014. This is the lowest since the survey began in 1997, although the gap has changed relatively little in recent years. A similar trend is seen when part-time employees are included, although the gap in 2015 is unchanged from 2014, at 19.2%.

For part-time employees separately, women are paid more on average, resulting in a “negative” gender pay gap. Although the trend is more volatile than for full-time employees, there is evidence that the gap has widened in the long-term. It has remained relatively stable in recent years, although it increased from 5.5% in April 2014 to 6.5% in April 2015.

Comparisons with other EU countries can be found on the Eurostat website (note that the latest figures available are for 2013).

“Analysis of factors affecting earnings using Annual Survey of Hours and Earnings – 2015”, also published today, presents further analysis of gender pay differences, controlling for certain individual and job-related characteristics.
Figure 8: Gender pay gap for median gross hourly earnings (excluding overtime), UK, April 1997 to 2015

Source: Annual Survey of Hours and Earnings (ASHE) - Office for National Statistics

Notes:
1. Employees on adult rates, pay unaffected by absence.
2. Figures represent the difference between men’s and women’s hourly earnings as a percentage of men’s earnings.
3. Full-time defined as employees working more than 30 paid hours per week (or 25 or more for the teaching professions).
5. 2015 data are provisional.

Download chart

Figure 9 shows gender pay differences by age group. When looking at the differences for full-time employees, the gap is relatively small up to and including those aged 30 to 39 (with the exception of the 16 to 17 age group). In fact, in the 22 to 29 age group, women are paid on average slightly more than men. From 40 upwards, the gap is much wider, with men being paid substantially more.
on average than women. This is likely to be connected with the fact that women who have children often take time out of the labour market.

Taking full-time and part-time employees together, for all age groups except 16 to 17, men are paid more on average than women. Also, for all age groups from 22 to 29 upwards, the gap is wider than for full-time employees alone. This indicates that, in these age groups, more women are working part-time in jobs that tend to be lower paid.

Figure 9: Gender pay gap for median gross hourly earnings (excluding overtime) by age group, UK, April 2015

Source: Annual Survey of Hours and Earnings (ASHE) - Office for National Statistics

Notes:
1. Employees on adult rates, pay unaffected by absence.
2. Figures represent the difference between men's and women's hourly earnings as a percentage of men's earnings.
3. Full-time defined as employees working more than 30 paid hours per week (or 25 or more for the teaching professions).
4. 2015 data are provisional.
Figure 10 examines the gender pay gap for high and low earners from 1997 to 2015. At the top decile (the top 10% of earners), the gap for full-time employees has remained largely consistent, fluctuating around 20%. For lower earners (the bottom 10% of earners) the gap has narrowed over the long term, to 6.5% in April 2015, although it has changed little in recent years.

Figure 10: Gender pay gap for median gross hourly earnings (excluding overtime) for full-time employees at selected deciles, UK, April 1997 to 2015

Source: Annual Survey of Hours and Earnings (ASHE) - Office for National Statistics

Notes:
1. Employees on adult rates, pay unaffected by absence.
2. Figures represent the difference between men's and women's hourly earnings as a percentage of men's earnings.
3. Full-time defined as employees working more than 30 paid hours per week (or 25 or more for the teaching professions).
5. 2015 data are provisional.
The gender pay gap for full-time employees in the private sector decreased from 17.6% in 2014 to 17.2% in 2015, the lowest since the series began in 1997 and continuing the long-term downward trend. The gender pay gap in the public sector increased for the second consecutive year from 11.0% to 11.4%, although it is of note that this has been relatively stable over the longer term, fluctuating around 10% since 2003.

Note that the composition of the public and private sectors changes from year to year, and this will influence the figures presented. For example, in a given sector, creation of jobs in higher paying occupations with a high proportion of female employees would act to reduce the gap.

**Figure 11: Gender pay gap for median full-time hourly earnings (excluding overtime) for public and private sectors, UK, April 1997 to 2015**

Source: Annual Survey of Hours and Earnings (ASHE) - Office for National Statistics

**Notes:**
1. Employees on adult rates, pay unaffected by absence.
2. Gender pay gap is defined as the difference between men's and women's hourly earnings as a percentage of men's earnings.

3. Full-time defined as employees working more than 30 paid hours per week (or 25 or more for the teaching professions).


5. 2015 data are provisional.

The gender pay gap also varies by occupation. For full-time employees the gap is “positive” for all the main occupation groups, ranging from 4.3% for sales and customer service, to 24.6% for skilled trades occupations in April 2015.

**Figure 12: Gender pay gap for median full-time hourly earnings (excluding overtime), by major occupation group, UK, April 2015**

Source: Annual Survey of Hours and Earnings (ASHE) - Office for National Statistics

Notes:

1. Employees on adult rates, pay unaffected by absence.
2. Gender pay gap is defined as the difference between men's and women's hourly earnings as a percentage of men's earnings.

3. Full-time defined as employees working more than 30 paid hours per week (or 25 or more for the teaching professions).

4. Occupations as defined by the Standard Occupational Classification 2010.

5. 2015 data are provisional.

6. Click on image to view a larger version.

Public and private sector pay

Median weekly earnings for full-time employees in the public sector have been higher than for the private sector since the start of the series in 1997. Private sector earnings were £501 in April 2015, compared with £589 for the public sector. Private sector earnings have remained consistently at around 85% of public sector earnings since 2009.

The public and private sectors have workforces which are composed quite differently. Consequently, differences in weekly earnings do not reveal differences in rates of pay for comparable jobs. For example, many of the lowest paid occupations, such as bar and restaurant staff, hairdressers, elementary sales occupations and cashiers, exist primarily in the private sector, while there are a larger proportion of graduate-level and professional occupations in the public sector.

"Analysis of factors affecting earnings using Annual Survey of Hours and Earnings – 2015" (also published today), presents further analysis of earnings differences between the public and private sectors, controlling for certain individual and job-related characteristics.
Regional earnings

In April 2015, London topped the regional list for median earnings for full-time employees, at £660 per week. Employees here earned £108 more per week than the next highest, the South East.
(£552), and £132 more than the median for the whole of the UK (£528). The high pay in London is largely due to a high proportion of its labour force being employed in high-paying industries and occupations, and also because many employees are entitled to allowances for working in the capital.

The regional pattern has remained fairly consistent since the series began in 1997, with London and the South East consistently topping the list.

At the local authority level, earnings vary significantly. In April 2015 full-time employees working in the City of London had the highest median gross weekly earnings (£921) and those working in North East Derbyshire had the lowest (£389). To explore these geographic differences further an interactive map showing earnings by local authority and an animated chart showing changes in weekly earnings by region over time are available. Figures 14 and 15 below show screenshots of these interactives.

It should be noted that earnings comparisons take no account of regional variations in prices for goods and services and therefore do not necessarily indicate differences in the standard of living. Neither do they take account of differences in the regional composition of the workforce, meaning that like-for-like comparisons may not be appropriate. For example, a region might have a lower level of median earnings than another if it has a higher proportion of employees in industries or occupations with relatively low earnings.

**Figure 14: What are the average earnings where you work?**
Figure 14: What are the average earnings where you work?

Figure 15: The screenshot of an interactive bar chart shows how regional earnings move through time.
The screenshot of an interactive bar chart shows how regional earnings move through time.
Figure 16: Median full-time gross weekly earnings and percentage change from previous year, by region, UK, April 2015

Source: Annual Survey of Hours and Earnings (ASHE) - Office for National Statistics

Notes:
1. Employees on adult rates, pay unaffected by absence.
2. Full-time defined as employees working more than 30 paid hours per week (or 25 or more for the teaching professions).
3. 2015 data are provisional.

Download chart
XLS format
(73.5 Kb)

Earnings by age group

Median weekly earnings for full-time employees reach a maximum in the 40 to 49 age group for men (£653) and in the 30 to 39 age group for women (£538).
Figure 17: Median full-time gross weekly earnings by sex and age group, UK, April 2015

Earnings by occupation

The major occupation group with the highest median weekly earnings for full-time employees was managers, directors and senior officials, at £784. Caring, leisure and other service occupations were the lowest paid group, at £341 per week.
More detailed information for specific occupations can be found in the tables accompanying this release.

Figure 18: Median full-time gross weekly earnings and percentage change from previous year, by major occupation group, UK, April 2015

Source: Annual Survey of Hours and Earnings (ASHE) - Office for National Statistics

Notes:
1. Employees on adult rates, pay unaffected by absence.
2. Full-time defined as employees working more than 30 paid hours per week (or 25 or more for the teaching professions).
3. Occupations as defined by the Standard Occupational Classification 2010.
4. 2015 data are provisional.
5. Click on image to view a larger version.

Download chart

XLS format (47 Kb)
The make-up of earnings

Overtime payments as a proportion of mean gross weekly earnings for full-time employees have remained relatively stable in recent years, following a sharp fall coinciding with the economic downturn. The proportion accounted for by incentive payments has decreased steadily since 2010, to 1.1% in 2015.

As is the case in previous years, overtime and incentive payments account for a greater proportion of mean gross weekly pay for men than they do for women.

Figure 19: Non-basic components of pay as a proportion of mean full-time gross weekly earnings, UK, April 2000 to 2015

Source: Annual Survey of Hours and Earnings (ASHE) - Office for National Statistics

Notes:
1. Employees on adult rates, pay unaffected by absence.
2. Calculation of mean includes zero responses.
3. Full-time defined as employees working more than 30 paid hours per week (or 25 or more for the teaching professions).
5. A methodological change in 2005 means that estimates for incentive payments from this time onwards are not comparable with earlier estimates.
6. 2015 data are provisional.

Download chart

XLS format (79.5 Kb)

Hours paid

Over the long term, the mean average number of hours paid per week for full-time employees has decreased from 40.0 in 1997 to 39.1 in 2015. This decrease is particularly notable for men, while women’s hours have remained stable at around 37.5. For men, there was a sharp dip between 2008 and 2009, from 40.7 to 40.1, and hours paid have since remained largely stable, not returning to the levels seen prior to the economic downturn. Examining the components of hours paid, there is a long-term decrease in overtime, particularly for men, although this has levelled off in recent years.

Figure 20: Mean full-time weekly paid hours of work (including overtime), UK, April 1997 to 2015

Source: Annual Survey of Hours and Earnings (ASHE) - Office for National Statistics

Notes:
1. Employees on adult rates, pay unaffected by absence.
2. Full-time defined as employees working more than 30 paid hours per week (or 25 or more for the teaching professions).
4. 2015 data are provisional.

Download chart

[XLS XLS format]

(192.5 Kb)

Figure 21: Mean weekly overtime hours, UK, April 1997 to 2015

Source: Annual Survey of Hours and Earnings (ASHE) - Office for National Statistics

Notes:
1. Employees on adult rates, pay unaffected by absence.
2. Calculation of mean includes zero responses.
3. Full-time defined as employees working more than 30 paid hours per week (or 25 or more for the teaching professions).
5. 2015 data are provisional.
Background notes

1. Survey details

The Annual Survey of Hours and Earnings (ASHE) is based on a 1% sample of employee jobs taken from HM Revenue and Customs PAYE records. Consequentially, individuals with more than one job may appear in the sample more than once. Information on earnings and hours is obtained from employers and treated confidentially. ASHE does not cover the self-employed or employees not paid during the reference period. The information for 2015 pay period included 22 April.

This bulletin contains provisional results from the 2015 survey and revised results from the series up to 2014. More detailed information is available on our website.

2. Quality and Methodology Information

Quality and Methodology information can be found on our website. This report describes, in detail, the intended uses of the statistics presented in this publication, their general quality and the methods used to produce them. Further information about non-government uses of ASHE statistics (81 Kb Pdf) can also be found on our website.

3. Common pitfalls in interpreting the series

The headline statistics for ASHE are based on the median rather than the mean. The median is the value below which 50% of employees fall. It is our preferred measure of average earnings as it is less affected by a relatively small number of very high earners and the skewed distribution of earnings. It therefore gives a better indication of typical pay than the mean.

Methodological changes in 2004, 2006 and 2011 resulted in discontinuities in the ASHE time series; therefore care should be taken when making comparisons with earlier years.

4. Relevance

The earnings information presented relates to gross pay before tax, National Insurance or other deductions, and excludes payments in kind. With the exception of annual earnings, the results are restricted to earnings relating to the survey pay period and so exclude payments of arrears from another period made during the survey period; any payments due as a result of a pay settlement but not yet paid at the time of the survey will also be excluded.

For particular groups of employees, changes in median earnings between successive surveys may be affected by changes in the timing of pay settlements, in some cases reflecting more than one settlement and, in others, no settlement at all.
Most of the published ASHE analyses (that is, excluding annual earnings) relate to full-time employees on adult rates whose earnings for the survey pay period were not affected by absence. They do not include the earnings of those who did not work a full week, and whose earnings were reduced for other reasons, such as sickness. Also, they do not include the earnings of employees not on adult rates of pay, most of whom will be young people. More information on the earnings of young people and part-time employees is available in the main survey results. Full-time employees are defined as those who work more than 30 paid hours per week or those in teaching professions working 25 paid hours or more per week.

5. **Accuracy**

Revisions
In line with normal practice this release contains revised estimates from the 2014 survey results which were published on 19 November 2014. These results take account of some corrections to the original 2014 data that were identified during the validation of the results for 2015, as well as late returns. Both the 2015 ASHE provisional results and the revised estimates for 2014 were made available from 18 November 2015.

Sampling error
ASHE aims to provide high quality statistics on the structure of earnings for various industrial, geographical, occupational and age-related breakdowns. However, the quality of these statistics varies depending on various sources of error.

Sampling error results from differences between a target population and a sample of that population. Sampling error varies partly according to the sample size for any particular breakdown or ‘domain’. Indications of the quality of ASHE estimates are provided in the form of coefficients of variation (CV). The coefficient of variation is the ratio of the standard error (SE) of an estimate to the estimate, expressed as a percentage. Generally, if all other factors are constant, the smaller the CV the higher the quality of the estimate. Tables of CVs corresponding to estimates are published alongside the estimates themselves. High-level coefficients of variation for the 2015 ASHE estimates are shown in Table 1.
Table 1: Coefficients of variation for estimates of median gross weekly earnings and hourly earnings (excluding overtime), UK, April 2015

<table>
<thead>
<tr>
<th></th>
<th>Full-time</th>
<th>Part-time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median gross weekly earnings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>0.3</td>
<td>0.4</td>
</tr>
<tr>
<td>Women</td>
<td>0.4</td>
<td>0.5</td>
</tr>
<tr>
<td>All</td>
<td>0.2</td>
<td>0.5</td>
</tr>
<tr>
<td>Median gross hourly earnings (excluding overtime)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>0.3</td>
<td>0.4</td>
</tr>
<tr>
<td>Women</td>
<td>0.4</td>
<td>0.3</td>
</tr>
<tr>
<td>All</td>
<td>0.2</td>
<td>0.3</td>
</tr>
</tbody>
</table>

Table source: Office for National Statistics

Table notes:
1. Employees on adult rates, pay unaffected by absence.
2. Full-time defined as employees working more than 30 paid hours per week (or 25 or more for the teaching professions).
3. Coefficient of variation is the ratio of the standard error of an estimate to the estimate, expressed as a percentage.
4. 2015 data are provisional.

Download table

XLS format
(27.5 Kb)

It should be noted that at low levels of disaggregation high coefficients of variation imply estimates of low quality. For example, for an estimate of £400 with a CV of 10%, the true value is likely to lie between £321.60 and £478.40. This range is given by the estimate +/- 1.96*SE. Where these ranges for different estimates overlap, interpretation of differences between the relevant domains becomes more difficult.

Non-sampling error
ASHE statistics are also subject to non-sampling errors. For example, there are known differences between the coverage of the ASHE sample and the target population (that is, all employee jobs). Jobs that are not registered on PAYE schemes are not surveyed. These jobs are known to be different to the PAYE population in the sense that they typically have low levels of pay. Consequently, ASHE estimates of average pay are likely to be biased upwards with respect to the actual average pay of the employee population. Non-response bias may also affect ASHE estimates. This may happen if the jobs for which respondents do not provide information are different to the jobs for which respondents do provide information. For ASHE,
this is likely to be a downward bias on earnings estimates since non-response is known to affect high-paying occupations more than low-paying occupations.

Finally, ASHE results tables do not account for differences in the composition of different “slices” of the employee workforce. For example, figures for the public and private sectors include all jobs in those sectors and are not adjusted to account for differences in the age, qualifications or seniority of the employees or the nature of their jobs, all factors which may affect how much employees earn.

Further information about the quality of ASHE (57.5 Kb Pdf), including a more detailed discussion of coverage and non-response errors, is available on our website.

ASHE coverage change in 2014
The rules covering which employments employers were required to report via PAYE changed in April 2013, effectively extending the coverage of the ASHE sample to include employments that were not covered under the previous rules. The new reporting system is known as “Real Time Information” (or RTI).

Analysis on 2014 results showed that the composition of the ASHE sample was not substantially distorted as a consequence of the move to RTI. This is because the majority of the RTI-type jobs were already being reported via PAYE by employers in previous years. Consequently, ONS judges that the impact of the move to RTI on the estimates for ASHE is negligible.

Response
The 2015 ASHE is based on approximately 187,000 returns.

Coherence
The Average Weekly Earnings (AWE) statistic, based on the Monthly Wages and Salaries Survey of about 9,000 employers, is the lead measure of short-term changes in average earnings in Great Britain. Figures are available with industrial breakdowns and public and private sector splits. No information is available on occupation, hours worked, and other characteristics of the workforce.

The AWE and ASHE are not directly comparable on all measures of earnings. The closest measure that can be derived and compared for these surveys is for mean gross weekly pay (excluding bonuses) in Great Britain. In the year to April 2015 the ASHE estimate of mean gross weekly pay (excluding bonuses) for all employees (regardless of whether they worked full-time or part-time) was £505, up 1.4% on the previous year. The comparable estimate from the AWE (regular pay) was £461, up 2.8% from April 2014.

The Labour Force Survey (LFS) collects information on the earnings and normal and actual hours worked of about 15,000 people aged 16 and over each quarter. In addition it collects data on a wide range of personal characteristics, including education level and ethnic origin. This enables the preparation of statistics on levels and distribution of earnings similar to the ASHE but with lower precision due to the much smaller sample size.
Notes on tables
The percentage changes of constituent items in tables may not always agree exactly with the values shown due to rounding.

6. Publication policy

A list of names of those given pre-release access to the contents of this bulletin is available on the ONS website.

Details of the policy governing the release of new data are available or from the Media Relations Office email: media.relations@ons.gsi.gov.uk

The United Kingdom Statistics Authority has designated these statistics as National Statistics, in accordance with the Statistics and Registration Service Act 2007 and signifying compliance with the Code of Practice for Official Statistics.

Designation can be broadly interpreted to mean that the statistics:

• meet identified user needs
• are well explained and readily accessible
• are produced according to sound methods
• are managed impartially and objectively in the public interest.

Once statistics have been designated as National Statistics it is a statutory requirement that the Code of Practice shall continue to be observed.

7. Details of the policy governing the release of new data are available by visiting www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html or from the Media Relations Office email: media.relations@ons.gsi.gov.uk

These National Statistics are produced to high professional standards and released according to the arrangements approved by the UK Statistics Authority.

Copyright

© Crown copyright 2015

You may use or re-use this information (not including logos) free of charge in any format or medium, under the terms of the Open Government Licence. To view this licence, visit www.nationalarchives.gov.uk/doc/open-government-licence/ or write to the Information Policy Team, The National Archives, Kew, London TW9 4DU, or email: psi@nationalarchives.gsi.gov.uk.

This document is also available on our website at www.ons.gov.uk.
Statistical contacts

<table>
<thead>
<tr>
<th>Name</th>
<th>Phone</th>
<th>Department</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>James Tucker</td>
<td>+44 (0)1633 456120</td>
<td>Labour Market</td>
<td><a href="mailto:earnings@ons.gsi.gov.uk">earnings@ons.gsi.gov.uk</a></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Statistics</td>
<td></td>
</tr>
</tbody>
</table>

Issuing Body:
Office for National Statistics

Media Contact Details:
Telephone: 0845 604 1858
(8.30am-5.30pm Weekdays)

Emergency out of hours (limited service): 07867 906553

Email:
media.relations@ons.gsi.gov.uk