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Understanding statistics on employment, unemployment and earnings

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Summary

A lot of information is available on the state of the UK labour market – numbers and rates of people employed and unemployed, the types of employment undertaken, average earnings, and so on. This note explains the meaning of different concepts and identifies the key measures and sources to use. It also addresses some common misunderstandings and areas where the statistics need to be interpreted with particular care.

The note has been updated in December 2019 to provide information on two changes that the House of Commons Library has made to how it reports information on the number of people claiming unemployment benefits:

- 1 The **alternative claimant count** will be used as the Library's principle indicator of local trends in unemployment – see section 4.4 for more information.
- 2 The **denominator used to produce the claimant rate** has been changed to the *number of people aged 16-64*, rather than the number of *economically active people aged 16-64*. This means that the Library's claimant rate is consistent with the rate used by the Office for National Statistics – see section 4.3 for more information.

1. Introduction: basic concepts

1.1 Labour market status

All people aged 16 and over may be classified to one of three labour market groups: employment, unemployment or economic inactivity. People aged under 16 are not included in labour market statistics.

- A person is counted as **employed** if they did any paid work in a given week. Also counted as in employment are those who were temporarily away from work; doing unpaid work for their own or a family member's business; and some people on government-supported training and employment programmes.
- Someone is **unemployed** if they are not in work but are looking for work (having done so at some point during the past four weeks) and are available to start work in the next fortnight.
- A person who is neither employed nor unemployed is **economically inactive**. This may be because someone is retired, looking after family or home, or a student, among other reasons.

Together, those in employment and those who are unemployed comprise the group of people who are **economically active**.

These concepts are explained visually in a [short video from the Office for National Statistics](#).

1.2 Levels, rates and people of working age

There are two measures for each of the key labour market statuses; the 'level' and the 'rate'. The level is a count of people in a certain defined group who fall under a particular labour market status. The rate is the proportion of people in a certain defined group who fall under a labour market status.

Rates are defined in line with international guidelines (specified by the International Labour Organisation), so as to be comparable with labour market data published by other countries.¹

Because people above working age (65+) are far more likely to be economically inactive (see chart below) we exclude them from some of the measures in order to get a clearer idea of the health of the labour market.

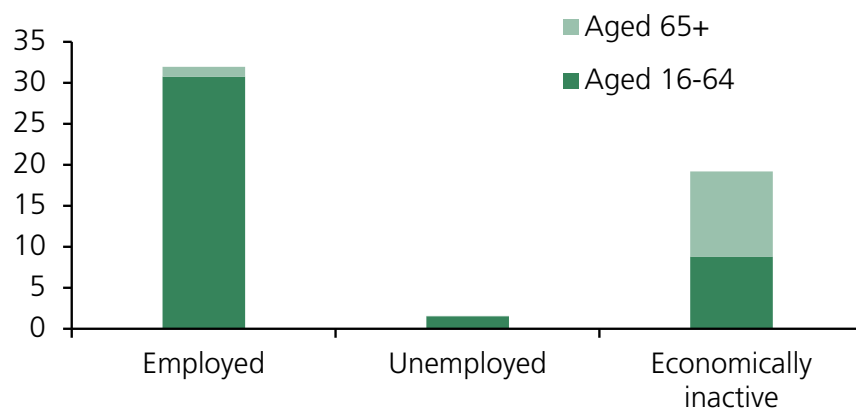
The table below details the classifications and age groups included in the headline measures of each of the key labour market statuses.

¹ International Labour Organization, [Standards and guidelines on labour statistics](#) [last accessed 17/12/2019]

	Level	Rate
Employment	All people employed aged 16 and over	Proportion of the population aged 16-64 who are in employment
Unemployment	All people unemployed aged 16 and over	Proportion of the economically active population who are unemployed aged 16 and over
Economically inactive	People economically inactive aged 16-64	Proportion of people economically inactive aged 16-64

Number of people, aged 16+, by labour market status

UK, Jan-Mar 2017, *Millions*



Source: ONS, UK labour market statistics bulletin, A01

2. Surveys and the collection of labour market statistics

Data on individuals' labour market status are collected via the Office for National Statistics' (ONS) [Labour Force Survey](#) (LFS). Statistics refer to people's labour market status in a given three month period.

The Labour Force Survey and the 'UK labour market statistical bulletin'.

The ONS Labour Force Survey is the key source of information about the UK labour market. The ONS base their official estimates of employment and unemployment on the Labour Force Survey results. The survey is made up of approximately 40,000 households and 100,000. The 100,000 individuals who respond to the survey are intended to reflect the demographics of the UK population as a whole. The Labour Force Survey includes questions about all aspects of working life including education, training, pay and job searching. Every month ONS release a [UK labour market statistical bulletin](#). This provides estimates of key labour market measures for the preceding three month period generated from the results of the Labour Force Survey. This bulletin is the chief source for data on the UK labour market.

2.1 Data are approximate

The statistics published by ONS come from a survey and so are estimates. Statistics for a particular group (e.g. for young people, or people living in a single region) will necessarily be based on a smaller number of survey respondents than statistics for the population as a whole. As the number of respondents diminishes, the more approximate the estimate becomes – **survey sampling error** becomes increasingly important. This means estimates for a particular age group or region are more volatile than figures for the UK as a whole.

Therefore, some of the difference in estimates over time may reflect measurement errors rather than actual changes. Where estimates differ by only a small amount (for example, a few thousand) it is best to view them as being 'about the same'.

Sampling error presents a greater problem still at the **local authority or parliamentary constituency** level. For constituencies, it becomes very difficult to discern actual changes over time from what is just statistical noise.

Sampling error is common to all surveys, not just the LFS. The problems outlined here also apply to surveys attempting to measure levels of earnings (see section 5).

The [Annual Population Survey](#) (APS) combines four quarters' worth of LFS data to create an annual dataset. The Annual Population Survey has a larger survey sample, so gives more robust estimates for some small groups of the population.

2.2 Net changes

Published statistics show the number of people in employment (or unemployed, or inactive etc.) in one period compared to another. The difference in the employment level (or other quantity) between periods

is the net change. This is not the same as the number of people entering employment, which will be offset to some degree by people leaving employment.² Consequently when politicians or the media quote statistics on jobs created, they are usually referring to net changes in employment.

2.3 Seasonal adjustment

The labour market follows certain seasonal patterns which occur for a number of reasons. For example, many people enter the labour market in the summer upon leaving full-time education. In order to distinguish between underlying movements in the labour market and expected seasonal patterns, data are often 'seasonally adjusted'.

Seasonal adjustment only adjusts for regularly occurring patterns. It does not take into account unusual or one-off events (for example, an extra bank holiday).

Where available, seasonally adjusted data are to be preferred to non-seasonally adjusted data. Most of the data in the ONS *Labour Market Statistics* bulletin are seasonally adjusted.

² Some analysis of people moving between unemployment, employment or inactivity is nevertheless possible since the LFS interviews respondents for five consecutive quarters. ONS publish limited data on these 'flows' in the February, May, August and November editions of its *Labour Market Statistics* bulletin.

3. Employment

3.1 National figures and where to find them

Employment in the UK is measured by the Labour Force Survey (LFS) and counts people who, in the week before the survey:

- Did any paid work as **employees** or **self-employed**, or were temporarily away from paid work;
- Undertook some form of work, work experience or work-related training as part of **government supported training programmes and employment schemes**
- Did **unpaid family work** (this consists of individuals who work in a family business and do not receive a formal wage or salary but benefit from the profits of the business).

The statistics are based on information as provided by the survey respondents.

The headline count of people in employment includes all people aged 16 and over. The employment **rate** is the proportion of the population aged 16-64 who are in employment.

Finding statistics on employment

Detailed statistics on employment (including the type of employment and trends) are published monthly in ONS' [Labour Market Statistics](#) bulletin. A summary of the latest data can be found in the Library's monthly research paper, [People claiming unemployment benefits by Constituency](#). Data for regions is published in the Library's research paper [Labour market statistics: UK regions and countries](#), data for smaller geographies can be downloaded from the [ONS Nomis website](#).

3.2 Employment and jobs

Employment is distinct from jobs: one employed person may have multiple jobs, or jobs may also be shared. A person with more than one job will only be counted once in the employment estimates.

Statistics published by ONS show net changes in employment (or jobs) between one period and the next. These net changes hide [larger gross flows](#) of people into and out of work. Thus the statistics do not show numbers of "jobs created"; when politicians or press talk about numbers of jobs created, they are usually referring to net changes in employment.

3.3 Local data

Constituency data

Constituency data on employment can be obtained from the Annual Population Survey and are published on ONS' [Nomis website](#). However, there is only a small number of survey respondents per constituency which means it is not possible to reliably analyse trends at this level (see section 2.1 for more information on survey sampling error). More

reliable data are available from the [2011 Census](#) although this is less up-to-date.

Data on the number of jobs based in each constituency (which may be held by people living elsewhere) are available from the ONS *Business Register and Employment Survey*. Figures do not include self-employed workers. [Rounded data](#) is publicly available via Nomis.

Regional data

The Annual Population Survey (APS) is more reliable at estimating employment data at a regional level. This is because there are a larger number of respondents to the survey. The Library publishes a research paper upon the release of new APS data entitled [Labour market statistics: UK regions and countries](#) which summarises these statistics.

3.4 Public/Private Sector Employment

Official statistics on public and private sector employment are published quarterly by ONS in its [Public Sector Employment](#) statistical bulletin. Data are workplace-based (based on where people work rather than where they live).

Public sector employment figures are calculated based on returns from public sector organisations. Private sector employment is estimated as the difference between total employment (as measured in the LFS), and public sector employment.³

Classification changes

The count of people employed in each sector is affected by the reclassification of organisations between the public and private sectors. For example, Lloyds Banking Group and the Royal Bank of Scotland were moved from the private to the public sector in Q4 2008, leading to a jump in public sector employment from that quarter (Lloyds was later reclassified back to the private sector in Q1 2014). Further education and sixth form college corporations in England were reclassified to the private sector from Q2 2012, contributing to an increase in private sector employment from that quarter. A full list of major reclassifications is provided in the Background Notes to the [Public Sector Employment](#) statistical bulletin.

Local data

Official statistics on public and private sector employment are not available below the regional level. However, data for smaller areas are available from other sources. See the Library's note on [Public sector employment by parliamentary constituency](#) for further information.

3.5 Analysis by industry

For analysis of the workforce by industry sector, it is better to look at number of **jobs** rather than people in employment as measured by the LFS. This is because the LFS relies on people correctly identifying the

³ It is likely that this understates private sector employment by a small amount, because the public sector employment figures will include people who have a second job in the private sector.

industry in which they work (for example, a supply teacher working for an employment agency should be classified to *Administration & Support Services* rather than *Education*). The ONS Workforce Jobs estimates on the other hand are mainly sourced from employers and are therefore considered more accurate.

National and regional data are published in the Jobs tables in ONS' monthly [Labour Market Statistics](#) bulletin. Data for smaller geographies are available from the ONS *Business Register and Employment Survey*. In both cases figures are based on where people work rather than where they live.

3.6 Part-time, self-employment and temporary workers

Data on part-time, self-employed and temporary workers are available from both the LFS and APS. LFS data will be timelier at a national level, but APS data is more reliable where the count of workers is small (e.g. at the regional level). The same sampling problems that have been discussed in Section 2 apply for these smaller worker groups and one should be extremely cautious of data on these types of workers when looking at small geographies or subgroups of these workers.

The Library publishes a research paper, [Labour market statistics: UK regions and countries](#), upon the release of new APS data which details regional data on part-time and self-employed workers.

3.7 Zero-hours contracts

A zero-hours contract is a type of contract used by employers whereby workers agree to be potentially available for work although they have no guaranteed hours.

People employed on zero-hours contracts will be counted in the headline employment figures if they state they were in paid work or were temporarily away from paid work in the week before they are surveyed for the LFS.

Further information is provided in the Library's research paper on [Zero-hours contracts](#).

3.8 Underemployment

While there is no official definition of underemployment, it can be simply understood as referring to people who are in work but wish to work more hours. ONS has used the following definition when publishing data on underemployment:

Underemployed workers are those who are employed but who either wish to work more hours in their current role or who are looking for an additional job or for a replacement job which offers more hours. They must also be over 16 and be currently working under 40 hours per week if they are between 16 and 18 and under 48 hours if they are over 18. Finally, they must be able to start working extra hours within the next two weeks.

Statistics are routinely published by the ONS four times a year in February, May, August and November in dataset [EMP16](#) in the UK labour market statistical bulletin.

4. Unemployment

4.1 International Labour Organisation Definition

People who are not in work are either unemployed or economically inactive. They are unemployed if they are looking for work and available to start work: more precisely, have looked for work within the past four weeks and are available to start within the next two weeks. Otherwise, they are economically inactive.

It is still possible for someone in full-time education to be unemployed, provided they are looking for and available for work.

The unemployment rate is the proportion of the economically active population who are unemployed aged 16 and over.

Finding statistics on unemployment

Data on unemployment and inactivity are collected as part of the Labour Force Survey (LFS) and are published in ONS' monthly [Labour Market Statistics](#) bulletin. A summary of the latest data can be found in the Library's monthly research paper, [People claiming unemployment benefits by Constituency](#). Regional data is available in the Library's paper [Labour market statistics: UK regions and countries](#), more local data can be downloaded from the [ONS Nomis website](#).

4.2 Unemployment and the claimant count

A different indicator to the headline unemployment data is the claimant count, an administrative count of the number of people claiming Jobseeker's Allowance (JSA) or Universal Credit where receipt of Universal Credit is dependent upon them seeking work.

Although they usually follow similar trends, unemployment and the claimant count are not the same. Many unemployed people do not claim a related benefit. Roughly half of those who were unemployed were not claiming a related benefit at the end of 2016. Some unemployed people may be ineligible for a related benefit, for example, if they are in full-time education.

Similarly, some unemployed claimants are not unemployed. For example, it is possible to be in work for a small number of hours per week and still be receiving an unemployment benefit. The Library's blog [A tale of two unemployment statistics](#) explains further the difference between the two statistics.

Which to use: unemployment or the claimant count?

Unemployment is normally the preferred measure. The claimant count is simply a count of people claiming relevant benefits, so at any point in time will depend on benefit rules then in operation. For example the introduction of Universal Credit has caused inconsistencies in the claimant count (discussed below).

However, when dealing with local areas or small subsets of the population, small numbers of survey respondents mean the unemployment statistics become less reliable and the claimant count provides useful information for tracking changes in the labour market. The claimant count is based on administrative records rather than a survey so is not subject to sampling error.

Claimant count data for constituencies are published monthly in the Library Research Paper [People claiming unemployment benefits by Constituency](#) and are also available from the Library's [Constituency data dashboard](#).

The unemployment rate and claimant rates

The unemployment rate is the percentage of economically active people aged 16 and over who are unemployed. (The economically active population comprises people in employment or unemployed. It excludes those who are economically inactive.)

From December 2019, the House of Commons Library and the ONS will both calculate the claimant rate as the number of claimants divided by the *total population aged 16-64*. Prior to December 2019, the Library calculated the claimant rate as the number of claimants divided by the *economically active population aged 16-64*. Further information on the reasons for this switch are provided in the section below.

4.3 House of Commons Library claimant rates

As stated above, the House of Commons Library has amended the denominator it will use to produce claimant rates from December 2019:

- From December 2019, the Library will calculate the rate as the number of claimants divided by the **total population** aged 16-64. This is also how the ONS calculate their claimant rate, meaning that the figures on the [Library dashboard](#) will be the same as the figures provided on the [ONS Nomis website](#).
- Prior to December 2019, the Library calculated the claimant rate as the number of claimants divided by the **economically active population** aged 16-64.

Why has the library changed its denominator?

The claimant rate provides useful information for tracking changes in the labour market over time, and for comparing different areas.

Analysis of the claimant rate using the two different denominators has shown that both rates provide similar trends, and therefore switching from one denominator to the other will have limited impact.

The library has previously calculated its own denominator as the ONS does not publish data showing the number of economically active people aged 16-64 in each constituency. The ONS do, however, publish the total number of people aged 16-64 in each constituency.

For these reasons the Library has taken the decision to change its denominator. This means that the rates used by the Library and the ONS

will be consistent, and that the Library will be able to use the denominators that are produced and published on Nomis.

4.4 Issues affecting the claimant count

The claimant count is simply a count of people claiming relevant benefits, so it is subject to changes in benefit rules and welfare to work schemes.

Changes to benefit rules do not directly affect who is counted as unemployed by the headline ILO definition, but they may have indirect effects on unemployment levels should they encourage or deter people from trying to get a job.

Universal Credit

Universal Credit has rolled out across the UK and has replaced income-based JSA as well as certain other benefits. Universal Credit is not only an out-of-work benefit and some people who are in work receive Universal Credit also.

Full Service and Live Service describe the computer systems used to deliver Universal Credit.

- In Full Service areas, Universal Credit is available to all types of claimant.
- In Live Service areas, Universal Credit is limited to claims which are relatively simple. For more complex claims, people continue to claim the legacy benefits.

Rollout of Full Service commenced in certain pilot areas at the end of 2014. All Live Service areas had switched to Full Service by December 2018.

There has been a marked increase in the claimant count in areas operating Universal Credit Full Service, and this is more pronounced in those areas that have been operating Full Service for longer.⁴ There are at least two reasons why the claimant count is increasing as rollout of Universal Credit progresses:

- Universal Credit requires a broader span of people to look for work than was the case for legacy benefits.
- New claimants who are awaiting or appealing Work Capability Assessments (an assessment to determine whether claimants should receive Universal Credit through a disability eligibility) are being required to look for work.

The continued increase in claimant numbers in Full Service areas means that the claimant count is no longer a good indicator of trends in the number of people who are looking for work. In response, following a consultation exercise, the Department for Work and Pensions (DWP) has published an 'alternative' claimant count series from January 2019.

More information on what Universal Credit is and who receives it can be found in the Library briefing [Universal Credit: an introduction](#). Information on the roll out of Universal Credit can be found in the Library briefing [The roll-out of Universal Credit](#).

The impact the roll out of Universal Credit is having on the claimant count is discussed in the Library Briefing [Universal Credit and the Claimant Count](#).

⁴ See the Library briefing [Universal Credit and the claimant count](#)

The alternative claimant count

The alternative series models what the count would have been if Universal Credit had always been in place since 2013. This means that it will include those claiming unemployment benefits as well as those people who may not have been claiming at the time, but who would have been required to look for work had Universal Credit been in place. Therefore the alternative series does not show an abrupt change in trend when an area starts operating Full Service (unlike the other claimant count series).

Specifically, the alternative series will include:

- People claiming Jobseeker's Allowance
- People claiming Universal Credit who are required to seek work (minus those awaiting a Work Capability Assessment)
- 'Additional' claimants who may not have been claiming unemployment benefits at the time, but who would have been required to seek work had Universal Credit been in place.

This series provides a better indication of unemployment trends than the unadjusted figures. From December 2019, the constituency data that is included in the Library's monthly research paper, [People claiming unemployment benefits by Constituency](#) will predominantly use the alternative count. It will, however, also continue to provide information on the number of people who are actually claiming unemployment benefits.

Benefit sanctions

If an individual claiming an unemployment benefit is sanctioned and continues to attend the Jobcentre as required, they are included in the claimant count. If, however, they do not continue to attend, then their claim may be terminated and they are not included in the claimant count. Sanctioned individuals may sign on again at a later date. Providing they are still looking for and available for work a person continues to be unemployed regardless of whether or not they continue to claim an unemployment benefit.

4.5 NEET young people and youth unemployment

The term NEET refers to young people *not in education, employment or training*. Not all NEET young people are unemployed, as some will be economically inactive – this will include those who are not in work because they are looking after family or home. Similarly not all unemployed young people are NEET, because some unemployed people may be seeking work while they are still in education or training.

Further information about NEETs is provided in the Library's research paper, [NEET: Young People Not in Education, Employment or Training](#).

5. Earnings

Earnings refers to the pay people receive for the work they do. It is not the same as 'income', which also includes benefits payments, income from investments or other sources. There are two main sources for data on earnings, and the source to use depends on what you are trying to find out.

Detailed data on average earnings levels and the distribution of earnings for different groups are published in ONS' [Annual Survey of Hours and Earnings](#) (ASHE), which provides much information on earnings by geography, gender, age, sector and occupation.

ASHE is an annual survey, so is not helpful for tracking short-term changes in earnings. Instead ONS' *Average Weekly Earnings* (AWE) series, published in its monthly [Labour Market Statistics](#) bulletin, tracks changes from month to month at the national level.

5.1 Annual Survey of Hours and Earnings

The headline figure for average earnings levels is **median gross weekly earnings of full-time employees**:

- **Which average to use: median or mean?** The median is the mid-point of the earnings distribution, where half of people earn more and half earn less. The mean (or simple average) is obtained by dividing total earnings by the total number of employees. Here the median is preferred since it gives a better indication of typical pay. As there is no upper limit on earnings, the presence of a small number of people on very high levels of pay causes the mean to be higher than the median.
- **Gross** earnings refer to earnings before tax. They include overtime, shift premium and incentive payments. (Some cases where it is preferable to use earnings excluding overtime are discussed below.)
- **Weekly earnings:** ASHE provides data on hourly, weekly and annual earnings. In most cases, weekly pay is used in preference to annual pay since the annual figures only include employees who have been in post at least a year and refers to pay over the previous tax year, rather than at the survey reference period of April.
- **Full-time:** The headline figure refers to full-time employees only. Weekly pay is lower for part-time employees because they work fewer hours per week (although they also tend to earn less per hour than full-time employees).
- **Employees:** Both ASHE and the AWE series cover employees only so exclude self-employed workers. Figures refer to earnings **per job** rather than per individual (one person may hold multiple jobs).

Changes over time and discontinuities

Annual data from 1997 to the latest year are provided in the [ASHE statistical bulletin](#) and can also be downloaded from [Nomis](#). However, the methods by which the data are compiled were changed in 2004, 2006 and again in 2011 – meaning that statistics for earlier years are not directly comparable with statistics for later years. This needs to be taken into account when analysing changes over time. For guidance, please contact the Library.

5.2 Average Weekly Earnings series

The AWE series is less detailed than ASHE but is more up to date. It is published on a monthly basis with a time lag of about two months, so is useful as a short-term indicator of earnings trends.

It differs from ASHE because it is a **mean** average and does not distinguish between full-time and part-time employees. The AWE series provides figures by industry and for the public and private sectors but it does not give data by age or gender, nor are estimates available for regions or smaller areas (data are for Great Britain only).

As with other labour market data, the AWE series is survey based. Therefore when looking at the percentage change in earnings over time, it is best to use the **three-month average** figures as these are less volatile than the single month estimates.

Bonus payments

Figures are published both for total pay (including bonuses) and regular pay (excluding bonuses). ONS publishes an [annual article on bonus payments in Great Britain](#) based on the AWE data.

5.3 Earnings of self-employed people

Both ASHE and the AWE series cover employees only. It is harder to capture accurate and timely information on earnings of self-employed people, so unsurprisingly there is more limited information available on earnings of the self-employed. What data we do have comes with a considerable time lag and are available from two main sources:

- **DWP Family Resources Survey.** Figures for self-employment incomes are generally not included in the main statistical publication but may be published by DWP on an ad hoc basis, via Parliamentary Questions, or other organisations may publish estimates based on analysis of raw data from the survey. The [latest survey dataset](#) is for 2015/16.
- **HMRC Survey of Personal Incomes.** Figures are published for all people who have *some* income from self-employment ([Table 3.10](#)), who may also have other sources of income – this is a larger group of people than the LFS estimate for people self-employed in their main job. Figures are also published for people who have self-employment income on which they must pay income tax ([Table 3.9](#)) – this is a smaller group of people than the LFS estimate for people self-employed in their main job, since it

excludes those who do not earn enough to pay tax. The latest figures are for 2014/15.

5.4 Measuring growth in average earnings – what to beware

Both ASHE and the AWE series report the change in average earnings from one year to the next. But the “change in the average” is not the same as the “average change”. Suppose we are comparing earnings in 2015 with earnings in 2016:

Change in average earnings	Average change in earnings
<p>This is the difference between average earnings of the 2015 workforce and average earnings of the 2016 workforce.</p>	<p>This looks at the change in earnings received by each person in 2016 compared to 2015 for all people who were in employment in both years, and then takes an average of all the changes.</p>
<p>The 2016 workforce is likely to be different from the 2015 workforce so we are not comparing the same group of people. Some people who were employees in 2015 may since have left employment; likewise some people who are employees in 2016 may not have been in work in the previous year.</p>	<p>People who were in work for only one year out of the two are excluded.</p>

Why does this matter?

There are two key reasons why this is important:

- Changes in the composition of the workforce have a direct effect on the change in average earnings, but not the average change in earnings. If lots of highly-paid people leave the workforce, or lots of people enter the workforce in low-paid roles, this will act to reduce average earnings. However, the *average change* is not affected because it only takes into account people who stay in the workforce between years.
- The change in average earnings only looks at earnings at the middle of the distribution. The average change takes into account what is happening for high- and low-paying jobs as well. Suppose (in the absence of changes in workforce composition), pay went up significantly for high- and low-paying roles, but was unchanged for middle-paying roles. Then the change in the average would be around zero, but the *average change* is greater.

Example: change in average earnings vs average change in earnings

Suppose there are five employees who earn £100, £200, £300, £400 and £500. The next year, the two lowest earners and two highest earners all see their pay increase by £50 with no change for the person in the middle. The new pay distribution is £150, £250, £300, £450 and £550.

In both years, the median value is £300 so the change in median earnings is £0. However, the median change in earnings is £50 (or 12.5%).

Now suppose another employee joined the workforce in the second year and was paid £100. The new pay distribution is £100, £150, £250, £300, £450, £550. Now the median in the second year is £275 (half way between £250 and £300). The change in median earnings is -£25 (-8.3%) but the median change in earnings is still £50 (+12.5%).

Of course, individuals may see their earnings change as a result of changing jobs, reducing or increasing hours, or other reasons besides seeing a change in their base salary. Therefore both sets of statistics (change in average earnings; average change in earnings) need to be interpreted with care.

Analysis of the average change in earnings over time was [published by ONS](#) alongside the main ASHE release for 2016.⁵

5.5 Public and private sectors

Data on earnings in the public and private sectors is available both from ASHE and from the AWE series. However, as is the case with data on employment, figures are affected by reclassifications of organisations between sectors (see section 3.4 of this note).

Average earnings are higher in the public sector than in the private sector. Some of this difference arises from the differing composition of the public and private workforces. Many of the lowest paid occupations are found mainly in the private sector while the public sector has a higher share of graduate level and professional occupations.⁶

5.6 Minimum wage

The Library has published a research paper [National Minimum Wage Statistics](#) which looks at trends in the value of the UK National Minimum Wage, the number jobs paid at the National Minimum Wage and how the National Minimum Wage compares internationally.

Information on the characteristics of jobs paying **at or below** the minimum wage can be found in the [Annual Report of the Low Pay Commission](#), which is based on analysis of the ASHE data. Figures are **workplace based**, meaning they reflect where people work rather than where they live; this distinction is likely to be important in areas with large commuter flows.

Living wage

The Living Wage is an unofficial hourly rate of pay set annually by reference to the basic cost of living in the UK and London. Further background is provided in the Library research paper [The Living Wage](#). Data on people earning below the Living Wage are not regularly published. What data are available have been released by ONS [on an ad hoc basis](#) or in response to Parliamentary Questions, and are based on ASHE. Figures are **workplace based**. In areas with large commuter flows, the proportion of people paid below Living Wage might vary considerably between the population living in the area and those working there.

⁵ ONS, [Analysis of the distribution of earnings across the UK using Annual Survey of Hours and Earnings \(ASHE\) data: 2016](#), 26 October 2016

⁶ Some studies have examined the difference between public and private sector pay once differences in workforce composition and location have been taken into account. See for example: Jonathan Cribb, Carl Emmerson and Luke Sibieta, [Public Sector Pay in the UK](#), Institute for Fiscal Studies Research Report 97, October 2014

5.7 Gender pay gap

The gender pay gap measures the difference between average earnings of men and women, as a percentage of male earnings. ONS uses **median hourly pay excluding overtime** to compare male and female earnings (including overtime can skew the results, since men work relatively more overtime than women).

However, comparisons are less straight forward than they may seem at first glance. As observed above, part-time employees tend to be paid less per hour than full-time employees. Since women are more likely to work part-time than men, the gender pay gap for all employees (18.1% at April 2016) is higher than the gap for full-time employees (9.4%). Among part-time employees, median pay is actually higher for women than for men so the pay gap is negative (-6.0%).

Furthermore, the gender pay gap does not show pay differences for men and women doing comparable jobs, or who have spent a similar length of time in employment or have similar qualifications. The Library's research paper on the [Gender Pay Gap](#) shows the difference in median pay of men and women by age group, region, occupation and industry.

5.8 Income statistics

Earnings are not the same as income. 'Income' includes benefits payments, private pensions, investments and other miscellaneous income sources in addition to earnings from employment. Statistics on incomes are generally presented on a household basis, while statistics on earnings are presented as earnings per individual (or more correctly, earnings per job). Income is often measured after taxes and benefits (i.e. disposable income) and may be adjusted ('equivalised') to take account of differences in household size and composition. Statistics on the income distribution are presented in DWP's annual [Households below average income](#) report and in ONS' [The Effects of Taxes and Benefits on Household Income](#).

6. Further information

ONS guidance

- ONS, [Labour Market Guidance, Interpreting Labour Market Statistics](#)

Explains basic concepts in labour market statistics and highlights some common misunderstandings.

- ONS, [Labour Market Guidance, Guide to Labour Market Statistics](#)

A detailed guide to concepts in labour market statistics. Includes information on the surveys used to collect data on different themes and a [glossary](#) of terms used in presenting and discussing the statistics.

- ONS, [A Guide to Sources of Data on Earnings and Income](#)

A detailed guide to the various sources of data on earnings and incomes in the UK. Explains how data are collected in each case as well as the key strengths and limitations of each source.

House of Commons Library publications

- [People claiming unemployment benefits by constituency](#)
(includes a summary of the latest data on employment, unemployment and earnings as well as claimant count data for constituencies)
- [Youth unemployment statistics](#)
- [Labour market statistics: UK regions and countries](#)
- [NEET: Young People Not in Education, Employment or Training Unemployment by ethnic background](#)
- [Employment by Country of Birth and Nationality](#)
- [Unemployment by Ethnic Background](#)
- [Zero-hours contracts](#)
- [The gender pay gap](#)
- Economic Indicators pages (one page summaries of the latest data on specific topics)
 - [Employment: key economic indicators](#)
 - [Unemployment - National: key economic indicators](#)
 - [Unemployment: International Comparisons](#)

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