Department for Work & Pensions

Economic labour market status of individuals aged 50 and over, trends over time: September 2017 (experimental)

Background information and methodology

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Purpose of the statistics

Economic labour market status of individuals aged 50 and over, trends over time: September 2017 (experimental)

This publication details the trends over time in the economic labour market status of individuals aged 50 and over.

These statistics allow external stakeholders to monitor changes in labour market outcomes of individuals aged 50 and over in more detail than is otherwise publically available.

These statistics include:

- The average age of exit from the labour market. This covers the time period from 1950 to 2017.
- The economic status of individuals aged 50 and over, over time. This includes employment, inactivity and unemployment rates and levels. Economic status analysis covers the time period from 1984 to 2017.
- The employment rate gap between 50-64 year olds and 35 -49 year olds.

Breakdowns provided in these statistics include: gender; five year age bands (from 50 to 75+) and full time/part time splits for those in employment.

These statistics provide a more detailed breakdown of the ONS monthly Labour Market Statistics for data regarding people aged 50 and over. Therefore they will not exactly match the latest monthly labour market headline statistics.

Read the latest UK Labour Market Statistical bulletin.

Context of the statistics

This Statistical Release provides analysis on the three headline measures that the government will use to monitor progress on Fuller Working Lives (FWL) that was announced in the Fuller Working Lives Strategy in February 2017.[1]

The aim of the FWL Strategy is: to support individuals aged 50 and over to remain in and return to the labour market and tackle the barriers to doing so.

The UK has an ageing population and workforce, therefore, it is of growing importance to understand the economic labour market status of individuals approaching, at and above State Pension age (SPa) and how trends are changing over time.

Between 2017 and 2022, there will be a 6.1 per cent increase in those aged 50-64 (0.8m individuals) and 9.5 per cent rise in individuals aged 65 and over (1.1m individuals). Over the same period, the 16-24 and 25-49 populations are expected to

[1] DWP (2017). *Fuller Working Lives: A Partnership Approach*. Available at: https://www.gov.uk/government/publications/fuller-working-lives-a-partnership-approach

decrease by 3.9 per cent and 0.1 per cent respectively[2].This means that the number of individuals aged 50 and over as a proportion of the adult population is projected to increase from 42 per cent in 2010 to 50 per cent (29.6 million) by 2035[3]

As well as this, changes to State Pension ages (SPa) are occurring. Since 2010, women's SPa has been gradually increasing from 60 years of age, rising to 65 by November 2018, at which point it will be equal to men's SPa. After this point, SPa for all individuals will increase to 66 by October 2020 and to 67 by 2028, under the schedule established by the Pensions Act 2014. The recent State Pension age review has proposed to increase the state pension age to 68 over the period 2037-2039[4].

Read more about the government's Fuller Working Lives Evidence Base and Fuller Working Lives Strategy.

These statistics are being published as part of the DWP Pensions and Ageing Society Statistics release strategy.

Source of the statistics

The economic labour market status analysis in these Official Statistics has been compiled using data from the Labour Force Survey (LFS) which is produced by the ONS. The sample consists of approximately 40,000 responding UK households and 100,000 individuals per quarter. Respondents are interviewed for five successive waves at three monthly intervals with 20 per cent of the sample being replaced every quarter. The LFS is intended to be representative of the entire UK population. As it is a household survey, people in communal establishments (e.g. hostels or medical and care institutions) are not included in results. When producing estimates across the whole UK population we use weighting factors provided by the LFS (see LFS guidance for more details). Read more about the LFS.

To allow for a trend from 1950 to 2017, the average age of exit analysis included in these statistics has been compiled by linking LFS Q2 analysis and ONS data (from 1984 onwards) to Blöndal and Scarpetta data (pre-1984).[5] This measure uses the economic activity rate, which is calculated as the economically active population divided by the sum of the economically active and economically inactive populations. The average age of exit is derived by multiplying each age by the probability of exiting the labour market at that age. The probability of exiting is a function of the probability of staying in the labour market.[6] The central principle is that the ratio of the economic activity rate from each age group to the next is taken to be the conditional probability of the former age group remaining economically active in the next period.[7]

[2] ONS 2014 based population projections.
[3] ONS 2014 based population projections
[4] DWP (2017). *State Pension age review.* Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/630065/state-pension-age-review-final-report.pdf
[5] Blöndal, S. and S. Scarpetta (1999). *Average age of exit from the labour market: ONS Pension Trends and LFS Q2 Analysis.*
[6] Mitchell and Guled (n.d). *Average age of withdrawal from the labour market: A methodology update.*
[7] ONS (n.d). *Estimating the average age of withdrawal from the labour force.*

For the static model, developed for the International Labour Organization (ILO) in 1996, the probability of staying in the labour market is equal to the activity rate at a certain age (e.g. age a) divided by the activity rate in the same year (e.g. year y) for those a year younger (age a-1). The static indicator, therefore, is concerned with the ratio of the economic activity rates between two age groups within the same year.[8]

Limitations of the statistics

The coverage of this publication is predominately the UK. However, due to the way the LFS has been developed over time, the results for 1992 to 1994 are based on GB results only. In the statistical release and accompanying data tables, this time period is clearly marked on all tables and charts to ensure the user is aware of this issue.

Between 1984 and 1991 the survey was carried out annually and from 1992 it became quarterly. The methodology used to produce the annual LFS before 1992 means that we use quarter 2 from the quarterly LFS from 1992 onwards. By using this methodology, we are producing the most consistent analysis over the full time period, from 1984 to 2017. Read more about the LFS Background and Methodology.

The statistics include a breakdown of employment levels and rates by full time and part time. To note that the LFS is self-reported meaning that the definition of full time and part time work is open to interpretation by the respondents.

This publication is based on survey data. It is therefore subject to potential limitations inherent in all surveys, including:

- **Survey design:** The LFS uses a rotational sampling design, whereby a household, once initially selected for interview, is retained in the sample for a total of five consecutive quarters. The interviews are scheduled to take place exactly 13 weeks apart, so that the fifth interview takes place one year on from the first.
- **Sampling error:** The fact that only a sample of the population has been selected and a different sample would probably produce a different estimate. This will vary to a greater or lesser extent depending on the level of disaggregation at which results are presented.
- **Non-response error:** Systematic bias due to non-response by households selected for interview in the LFS. In an attempt to correct for differential non-response, estimates are weighted using population totals.
- **Survey coverage**: The error which arises because some units are either excluded or duplicated on the sampling frame used to identify members of the population of interest.
- **Measurement error:** Made up of four types:
    - interviewer error arising from both conscious and unconscious differences in the way interviewers administer a survey, and also from the reactions of respondents to different types of interviewers;
    - respondent error arising from the inability or unwillingness of a respondent to produce a correct answer;

[8] Mitchell and Guled (n.d). *Average age of withdrawal from the labour market: A methodology update.*

    - instrument error which reflects the effect of question wording, response categories and form design on responses; and
    - mode error which describes the effect of different methods of administering a questionnaire on the recorded responses.
- **Processing error:** This consists of systems error and data handling error. Systems errors are errors in the specification or implementation of systems needed to carry out surveys and process results; system errors on the LFS can creep in when derived variables are specified and/or amended. Data handling errors are errors in the processing of survey data.
- **Sample size:** Although the LFS has a relatively large sample size for a household survey, small sample sizes for particular breakdowns may mean that specific analysis is not robust enough to report.

Read Volume 1: Background and methodology for more information regarding the extent to which these limitations specifically affect the LFS and the methods used to minimise the potential bias and errors that could occur.

There are several limitations with the static model used in the average age of exit analysis, predominately around the assumptions made, including:

- There is an age above which everyone is inactive and an age below which everyone is active. This is not realistic because people may go on working at older ages and some people under 50 are economically inactive.
- Once someone becomes economically active, they remain so until they leave the labour market. This is unlikely to be always true in reality as some people take time out during their working lives for purposes such as studying, caring (particularly for women) or travelling.
- Factors affecting the economic activity of one cohort are the same as those affecting the activity of the next. In general, this is a reasonable assumption, but where there are policy shifts the assumption may not hold.
- The activity rates used in calculations should refer to the same group of people in the numerator and the denominator. However, in the static method the numerator and the denominator refer to activity rates of adjacent cohorts in the same year. This can be solved to some extent by using 'moving averages' but the problem could still persist.[9]

Comparisons between the statistics

The definitions of employed, unemployed and economically inactive are derived from the LFS which uses the standard International Labour Organisation (ILO) definitions.

The analysis throughout this publication is based on unrounded rates and levels, whereas the rates and levels presented in the Data Tables are rounded to the nearest decimal place and 1,000. For this reason, secondary analysis on the tables may not match what is presented throughout these statistics.

[9] Mitchell and Guled (n.d). *Average age of withdrawal from the labour market: A methodology update.*

Definitions and terminology within the statistics

Average age of exit from the labour market: the age at which people are most likely, on average, to leave the labour force.

Economic inactivity level: The numbers of individuals, who are not working, have not been looking for work within the last 4 weeks or who are unable to start work within the next 2 weeks. Examples of economically inactive individuals include: individuals not looking for work because they are students; looking after the family or home; because of illness or disability or because they have retired.

Economic inactivity rate: the economic inactivity level for those in the age group divided by the population for that age group.

Employment level: the number of individuals in work. This includes those working part time and those who are self-employed.

Employment rate: the employment level for those in the age group divided by the population for that age group.

State Pension age (SPa): the age at which an individual becomes entitled to claim their State Pension. Recent legislative changes have been introduced. The Default Retirement Age was removed in 2011. More information on the State Pension age timetable is available at: https://www.gov.uk/government/publications/state-pension-age-timetable

Unemployment level: the number of individuals who are not working, have been looking for work within the last four weeks and are able to start work within the next two weeks. A common misconception is that the unemployment statistics are a count of individuals on benefits; this is not the case as they include unemployed individuals not claiming benefits.

Unemployment rate: the unemployment level for those in the age group divided by the total number of economically active individuals for that age group. Economically active is defined as those in employment plus those who are unemployed.

Working age population: refers to people aged 16 to State Pension age.

The comparisons made between different rates in the narrative of these Official Statistics have been checked for **statistical significance**. This is a technical concept that says whether an estimated value is likely to have arisen only from variations in the sampling. In the publication, it is used when talking about a change or a difference: a significant change or difference is one that is not likely to be due only to the sampling, and therefore likely to be a real change/difference. Plotting estimates and their confidence intervals (a measure of the uncertainty of an estimate) gives an indication of whether or not a difference is significant. In general, if the confidence intervals of two estimates do not overlap, the estimates are significantly different.

To provide a sense of scale, the table below gives the confidence intervals around selected headline rates relating to all individuals in 2017:

Rate	Estimate (%)	Interval Width (percentage points)	Interval Range (%)
50 – 64 Employment Rates	71.2	1.3	70.5 to 71.8
50 – 64 Economic Inactivity Rates	26.6	1.3	25.9 to 27.2
50 – 64 Unemployment Rates	3.1	0.6	2.8 to 3.4
65+ Employment Rates	10.0	1.0	9.5 to 10.5

Revisions to the statistics

This is the first in a series of annual Official Statistics using analysis derived from the LFS produced by the ONS. Any revisions made to the LFS by the ONS will be included in the next release.

Status of the statistics

Experimental statistics

These are “Experimental” Official Statistics due to the inclusion of new analysis in this publication, to allow us to seek feedback from users and build on the statistical evidence on Fuller Working Lives.

Quality Statement

The analysis in this statistical publication is based on data taken from the LFS which is closely monitored in terms of methodology and quality.

Read more about the Labour Force Survey performance and quality monitoring.

These statistics have been developed using guidelines set out by the UK Statistics Authority in the Code of Practice for Official Statistics. This details the necessary principles and practices to produce statistics that are trustworthy, high quality and of public value.

They are new Official Statistics undergoing evaluation and have, therefore, been designated as Experimental Official Statistics. Users are invited to comment on the development and relevance of these statistics at this stage.

Read more about the Code of Practice for Official Statistics.

Feedback

We welcome feedback

Tell us your views on the statistics by e-mailing

fwl.analysisteam@dwp.gsi.gov.uk

Useful links

This document, the statistics release and supporting tables can be found here:

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