

Eurostat/OECD 2018 questionnaire on the methodology underlying labour input data in national accounts

Country: United Kingdom

Date: March 2018

Part I: Methods

1. Employment - Jobs

Question 1.1: Please describe the architecture of your estimation method for employment in jobs. Please include details of differences in methods and data sources that may exist at different points in the time series (e.g. a break in the series) or due to the timing of the estimate (e.g. flash estimate, regular estimate or annual data). Please also provide links to articles that may be relevant.

- At the whole-economy level, jobs are calculated by summing first and second jobs from LFS.
- Industry splits of jobs include several adjustments to incorporate other data sources
 - Adjustments are made to estimate employee (EE) and self-employed (SE) jobs (along with Her Majesty's Forces (HMF) and Government Supported and Training (GST) at the industry and sectional level. These are:
 - 1. Mid-quarter estimates of EE are derived from month-3 employee estimates from workforce jobs sources using linear interpolation.
 - 2. Estimates of SE taken from Labour Force Survey.
 - 3. Constrain EE + SE to LFS NSA total jobs (first + second jobs) minus HMF and GST.
 - 4. Apportion GST jobs across industries in proportion to the number of EE in that section.
 - 5. Allocate all Her Majesty's Forces (HMF) to industry O-Q (i.e. Government Services)
 - 6. Seasonally Adjust.

Question 1.2: What is the main original source for employment in the national accounts (e.g. administrative source, labour force survey, business survey, other)? Briefly describe this source, its coverage (including over time, range of businesses/households covered, etc.), its availability and whether it is in terms of jobs and/ or persons.

- Workforce Jobs (WFJ) uses data from multiple surveys, which includes both Labour Force Survey and business surveys:
 - Workforce jobs is a quarterly measure of jobs in the UK, and is the preferred measure of short term employment change by industry. A variety of outputs are produced, including industry, region, gender and full or part time status.
 - It has a sample size of 83,400, with samples taken from (short term employer surveys (STES) 32,800 businesses (business survey), the quarterly public sector employment survey (QPSES) 1,500 contributors (business survey) and the labour force survey (LFS) 50,000 households).

Please specify the sources used for different parts of employment (in particular if sources differ between employees and self-employed, and/or between industries, firms of different size, etc.). If sources differ, please provide a clear distinction when answering the questions that follow.

- Private sector employees come from our short term employment survey (STES) and Business Register Employment Survey (BRES). Data on working proprietors and agricultural workers come from LFS
- Public Sector Employees data come from the public sector employment survey.
- Self-Employment data comes from the LFS
- Government Supported Trainees data come from the LFS
- Her Majesty's Forces data come from the Ministry of Defence

***Question 1.3:* Please describe how estimates of annual figures based on higher frequency data (e.g. weekly, monthly, quarterly) are derived. Please also specify, if relevant, how annual figures are derived if survey information is less periodic (e.g. every 5 years)?**

Quarterly figures for jobs are calculated in the way set out in previous questions. Annual figures are calculated by taking the mean over four quarters

***Question 1.4:* Please describe the adjustments made to pass from jobs to the concept of persons (if the original source is in terms of jobs).**

No adjustments are made to pass from jobs to persons concept.

***Question 1.5:* Please describe the adjustments made to correct for coverage of the economic territory (see ESA §11.17-11.19)? This refers specifically to residents working for non-resident units abroad non-residents working in resident units. If relevant, please also describe adjustments for military (including conscripts, where applicable) and other collective households not covered by your main source.**

No adjustments are made to correct for coverage of the economic territory.

***Question 1.6:* Which adjustments are made for the unobserved economy (e.g. producers that deliberately do not register, individuals providing their labour that are not required to register, illegal workers, etc.)?**

No adjustments are made to correct for the unobserved economy.

***Question 1.7:* Which, if any, other adjustments are made (e.g. inclusion of resident workers below the age threshold, prisoners, adjustments made to account for statistical deficiencies in the source data, etc.)?**

No other adjustments are made.

Question 1.8: In cases where Labour Force Survey data have not been used as the main source (even if only for some activities or groups of workers), please explain why. Are LFS data used for adjustments or cross-checking? Are differences monitored?

2. Hours worked

Question 2.1: Please describe the architecture of your estimation method for hours worked. Please include details of differences in methods and data sources that may exist at different points in the time series (e.g. a break in the series). Please also provide links to articles that may be relevant.

- Actual hours worked are obtained from the Labour Force Survey. We make no adjustments to the all industry actual hours worked total.
 - On an industry and sectional level, adjustments are made for both employees (EE) and the self-employed (SE) who do not report their hours. (1). For EE and SE, we calculate the number of first and second jobs, as well as hours worked in first and second jobs (respectively), for each industry division and industry section using LFS. (2). We then adjust total hours worked by multiplying the number of jobs which do not state hours by the average hours worked per job in each industry division and section for both EE and SE. (3). We then calculate the average hours worked in each industry division and section for both EE and SE.
 - Adjustments to EE only - (4). We then calculate total hours worked in each industry and section by multiplying average actual hours worked by EE jobs in workforce job sources.
 - Adjustments to SE only - (5). We allocate those who do not state an industry division in proportion to the number of jobs in each division and section. (6). We then calculate total hours worked in each industry and section by multiplying average actual hours worked by these adjusted jobs figures from LFS.
 - These hours adjustments are made at the division and sectional level only. Total hours for EE and SE are summed for each industry, then constrained to total NSA hours from the LFS publication (minus our estimates for Unpaid Family Workers (UFW), Government Supported Training (GST) and Her Majesty's Forces (HMF) hours).

Question 2.2: What is the main original source for hours worked in the national accounts (e.g. administrative source, Labour Force Survey, Business survey)? Briefly describe this source, its coverage and its ability to reflect the definition of hours worked (see ESA §11.27-11.31). In particular, does it capture a 'usual' hours, 'actual' hours, or some other concept?

- The main source for actual hours worked in the national accounts is from the Labour Force Survey. The Labour Force Survey is a study of the employment circumstances of the UK population, which provides estimates of employment, unemployment, economic inactivity and other employment-related statistics for the UK..
- The sample is made up of approximately 40,000 responding UK households and 100,000 individuals per quarter. Respondents are interviewed for 5 successive waves at 3-monthly intervals and 20% of the sample is replaced every quarter.
- The Labour Force Survey reflects the definition of hours worked in the System of National Accounts (SNA).

Please specify the sources used for different parts of the employed population (in particular if sources differ between employees and self-employed, and/or between industries, firms of different size, etc.). If sources differ, please provide a clear distinction when answering the questions that follow.

- Actual hours worked for EE and the SE are taken from the Labour Force Survey.
 - At an industry level, we make adjustments for Unpaid Family Workers, Government Support and Training workers and Her Majesty's Forces.
 - Actual hours worked for Unpaid Family Workers and Government Support and Training workers are also taken from the Labour Force Survey.
 - Actual hours for Her Majesty's Forces are constant at (47.7) for males and females (44.2).
 - Any adjustments to hours at an industry and sectional level are constrained to the total NSA hours from the LFS publication.

Question 2.3: Please describe the adjustments made to transform the original source to adapt it to the concept of working hours as defined in national accounts? Please, describe each adjustment separately. These adjustments might include:

- Accounting for holidays and annual leave - No adjustments are made to holidays and annual leave.
- Accounting for sickness leave- No adjustments are made to sickness leave.
- Accounting for strikes and temporary lay-offs -No adjustments are made for strikes and temporary lay-offs.
- Accounting for paid but unreported overtime - No adjustments are made for accounting for paid but unreported overtime.
- Accounting for unpaid overtime - No adjustments are made for unpaid overtime.

Question 2.4: Is a specific adjustment made to account for under- or over-reporting in the source data? Please specify if these adjustments are made for employees and/or self-employed workers.

No adjustments are made for under-or-over reporting.

Question 2.5: If an adjustment is made for the number of persons employed in relation to the unobserved economy, what assumption is made regarding the hours worked by these persons?

No adjustments are made for the number of persons employed in the unobserved economy.

Question 2.6: Which other adjustments, if any, are made?

N/A

Question 2.7: If necessary, please describe any additional calculations needed to derive total hours worked and average hours worked from the sources and adjustments specified above. This includes, but is not limited to, adjustments made to align the coverage of hours worked with that of employment in persons (i.e. the coverage produced by the process followed in section 1).

N/A

Part II: Other work in this area

3. Differences between national accounts and Labour Force Survey estimates

Question 3.1: To what extent do you consider your Labour Force Survey an accurate tool for the measurement of employment and hours worked? Please describe any issues or shortcomings of which you may be aware.

- The Labour Force Survey is the preferred source of data for employment and actual hours worked.
 - Limitations
 - We ask respondents to report the actual hours they work in their main and second job (including and excluding over time), in a reference week.
 - As the LFS is self-reported survey, individuals may not report their hours or may under or over-estimate their hours worked in the reference week.
 - Self-employment data
 - The Labour Force Survey sample size has been declining over recent years, and may become less representative of the population.

Question 3.2: If the Labour Force Survey is not the primary source of data used to derive your estimates of employment in persons hours worked: Are you able to quantify, even approximately, what the difference would be between your current national accounts estimates and those you would obtain if you did use the Labour Force Survey data as your primary source?

N/A

Question 3.2.1: Where differences between these estimates exist, can you provide a brief assessment of the source of these differences?

N/A

4. Flash estimates of employment in persons

Question 4.1: Are you currently producing flash estimates of employment (t+30 or t+45)? If so, please describe briefly the methodology, coverage and sources. If you are not producing a flash estimate, do you have plans to start doing so in the future?

Yes. We produce total workers at (roughly) t+45. This data is equal to the total number of workers from LFS.

Question 4.2: Please provide information on the quality of the estimates (e.g. revision analysis).

N/A

5. Other data produced (Optional)

Question 5.1: Do you have plans in the near future to improve or expand the content of national accounts labour input data (e.g. improved alignment with national accounts concepts, extension of the time series, increased industry detail, etc.)?

Question 5.2: Do you produce labour input data other than that already discussed, for example quality adjusted labour input or labour input in terms of full-time equivalents? If so, please provide details and/or links to these data.

Question 5.3: Do you produce productivity statistics (e.g. labour productivity for the total economy, further breakdowns of labour productivity, capital productivity, multi-factor productivity, etc.)? If so, please provide details and/or links with regards to these data.

Question 5.4: If there is any other work that you produce currently, or are looking to produce in the future, in the areas of labour input or productivity, please use the space below to inform us about this work.