

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

Country: Iceland

Date: April 2018

Part I: Methods

1. Employment in persons

Question 1.1: Please describe the architecture of your estimation method for employment in persons. 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.

Employment in persons is generated in accordance to ESA 2010 by counting the number of job-records which are assigned as primary jobs where hours of work is equal or greater than one (see description for hours worked estimates) in a given month.

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.

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.

The main original source for employment in the national accounts is based on the administrative records for Pay-As-You-Earn (PAYE). PAYE is monthly records of wages and income tax on an employee-employer level reported to the tax authorities. The dataset used by the national accounts is post-processed, records reviewed and classified, internally for statistical usage. Records for self-employment from the administrative records of income summaries from employers and/or tax returns for individuals that are not found in the PAYE records are added to the main dataset. The PAYE records are on average available with up to a two month lag, while the annual income summaries and individual tax returns arrive in August for the preceding year. The statistical unit within the framework is a job, defining a record in the main dataset as unique combinations of year, month, employee, employer, and division (NACE rev 2). Other job specific classifications (such as ISCO-88) are derived from the job-record with the highest income within the statistical unit level.

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 are the average of the months within the quarter. Annual figures are the average of the months within the year.

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).

In order to get the persons concept from jobs it is sufficient to select only the job-records from the micro-dataset which are primary jobs of the employees.

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.

In order to get correct coverage of the economic territory from the micro-dataset the job-records with sector classification S.2 (rest of the world) are excluded.

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.)?

Currently there are no adjustments made for the unobserved economy. Measures for addressing the unobserved economy are in development.

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.)?

Figures for self-employed persons are estimated (modelled) until administrative records are available, which is on average in August for each preceding year (see description of sources for employment).

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?

The LFS is used for monitoring and cross-checking when applicable. Currently the LFS is only directly used for classification of job-records with no administrative records for NACE rev.2 or ISCO-88 (mainly records for self-employment). Measures which utilize the LFS for adjusting for the unobserved economy are in development.

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.

Normal hours are generated for each job-record based on job specific characteristics. Hours paid are generated for each job-record through a process predominantly based on modelling information from business surveys. Absence due to holidays, annual leave, and sickness leave are generated for each job-record and subsequently subtracted from hours paid in order to generate hours actually worked.

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?

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.

The main original source for hours worked in the national accounts is the business survey the Icelandic survey on wages, earnings and labour costs (ISWEL). The target population in ISWEL includes all legal units with more than 10 employees, both in the public and private sector. Data is collected directly from the business units’ pay-roll systems. Among the information which is collected which is relevant to hours worked are; normal hours, hours with shift premium, hours in piece work, overtime pay, sickness pay, and contractual working hours. The ISWEL records are on average available with a one month lag. The information from ISWEL is applied to the main micro-dataset, which is primarily based on the PAYE (see description for sources for employment). Other major data sources include the national register (daily information about names, gender, marital status, legal domicile, place of birth, citizenship and child bearing), the graduation register (records of school, line of study, degree, mode of teaching and date of graduation), register for days at sea (date of departure and arrival of individual on vessels), and a database of collective agreements in Iceland (terms of the agreements and parties for which it applies).

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
Holidays and annual leaves are generated for each job-record. Initial assignment of hours paid but not worked due to holidays and annual leaves (separate processes) are based on employee and employer specific characteristics within the job-record. Holidays, whether that is a national holiday or other specific holidays, and rights for annual leaves are assigned if specifications in laws, regulations and in collective agreements are applicable to the job-record. These figures for hours paid but not worked due to holidays and annual leaves are then adjusted in relation to hours paid within the job-record and in relation to hours-paid for the employee in other jobs within the month and within the year.
- Accounting for sickness leave
Hours paid but not worked due to sickness leave are assigned to each job-record based on estimates from specific business surveys in relation to ISWEL. Currently these estimates are annual percentages for certain sections (NACE rev.2) from the Labour Cost Survey (LCS). Sickness leave on a more granular level is in development.
- Accounting for strikes and temporary lay-offs
Strikes and temporary lay-offs are monitored, but no specific adjustments are deemed necessary since their effect is reflected in the PAYE.

- Accounting for paid but unreported overtime
Paid but unreported overtime is not deemed to be a problem.
- Accounting for unpaid overtime
There are currently no adjustments for unpaid overtime. There are theoretical justifications for that it is included to some extent, but the subject requires further investigation.

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.

There are currently no adjustments for under- or over-reporting in the source data.

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?

Currently there are no adjustments made for the unobserved economy. Measures for addressing the unobserved economy are in development.

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

Figures for self-employed persons are estimated (modelled) until administrative records are available, which is on average in August for each preceding year (see description of sources for employment).

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).

No additional calculations are made.

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 Icelandic LFS is excellent at measuring the state of individuals on the Icelandic labour market, it is timely and detailed on employee (primary job) specific subjects. The size of the survey does however put restrictions on how reliably it is possible to disaggregate the results with respect to time periods and NACE rev.2. Cross-checking the records has revealed that individuals have a tendency to consider themselves self-employed where they should be classified as employees according to ESA 2010. Further checks have also revealed a tendency for people in Iceland to report 40 hours of work per week (as is stated by law), which should in many cases be measured as 38.5 hours in accordance to ESA 2010.

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?

There are considerably more hours worked and twice as many self-employed persons according to the LFS. The LFS does capture the unobserved economy which the current framework for the national accounts does not yet incorporate.

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

In progress.

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?

The current framework readily allows for t+30 figures (even figures for each month). The only estimation would be for self-employed persons. There are currently no plans for publishing it.

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

In development.

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.)?

Currently the time series starts at 2008. This is due to the framework being developed prior to NACE rev.2 classification of the source data prior to that year being available. Plans are for extending the time series in successions to 2005, 2000, 1997, and 1995, in accordance to breaks in the source data.

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.

FTE is in development.

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.

Labour productivity:

<https://www.statice.is/statistics/economy/employment-and-labour-productivity/labour-productivity/>

http://px.hagstofa.is/pxen/pxweb/en/Efnahagur/Efnahagur__vinnumagnogframleidni__framleidnivinnuafis/THJ11011.px

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.