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Labour Force Surveys 2015

AM0401

In this description, general information on the survey is first presented, followed by the objectives and background. The content and accuracy of the survey are then described, followed by how the survey is carried out and how the results are made available. By clicking on a heading on the contents page, you can move directly to the relevant section.

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A General information

A.1 Subject area

Subject area: Labour market

A.2 Statistical area

Statistical area: Labour Force Surveys

A.3 Official Statistics of Sweden classification

Official Statistics of Sweden (SOS): Yes, included in Sweden's official statistics

Sveriges officiella statistik

Special rules apply for surveys that are included in the official statistics of Sweden concerning quality and availability. See the Official Statistics Ordinance (2001:100).

A.4 Statistical agency responsible for statistics

Government agency/organisation: Statistics Sweden
Postal address: Box 24 300, SE-10451 STOCKHOLM
Visiting address: Karlavägen 100
Contact person: Elisabet Andersson
Telephone: +46 8 5069 4645
E-mail: firstname.lastname@scb.se

A.5 Producer of statistics

Government agency/organisation: Statistics Sweden
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Contact person: Elisabet Andersson
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E-mail: firstname.lastname@scb.se

A.6 Duty to report data

There is no duty to report data according to the Official Statistics Act (SFS 2001:99).

A.7 Confidentiality and rules for handling of personal information

Confidentiality applies to the specific activities of agencies for producing statistics, according to Chapter 24, Section 8 of the Public Access to Information and Secrecy Act. For the automatic handling of personal information, the rules in the Personal Data Act (1998:204) apply. Within the area of statistics, there are also specific rules on the handling of personal data in the Official Statistics Act (2001:99) and the Official Statistics Ordinance (2001:100).

A.8 Archiving regulations

According to the Official Statistics Act, personal information shall be eliminated when it is no longer needed for its purpose. However, the government or the National Archives may specify exceptions to this requirement if necessary, in consideration of the national cultural heritage or for research purposes. According to the preservation decision of the National Archives (RA-MS 2007:64), the Labour Force Surveys are exempted from the rules on archiving.

Information on individuals and identity concepts from the survey of 1987 and onwards are currently stored at Statistics Sweden in a PC environment. The survey rounds 1962 – 1998 in the mainframe computer environment have been archived at the National Archives.

A.9 EU regulations

As of 2001, the Labour Force Survey (LFS) has been adapted according to Council Regulation (EC) No 577/98. In April 2005, the LFS was adapted to Commission Regulation (EC) No 430/2005. Since 2007, the LFS has applied the international harmonised definition of unemployment. The LFS is regulated according to a number of regulations. A complete list of regulations can be found on Eurostat's website:
http://ec.europa.eu/eurostat/statistics-explained/index.php/EU_labour_force_survey_%E2%80%93_main_features_and_legal_basis

A.10 Objectives and background

The objectives of the survey are to describe the current employment conditions for the entire population aged 15-74 and to provide information on labour market developments. The LFS is the only source that regularly provides a coherent picture of the labour market: employment, unemployment, hours

worked, etc. The survey complies with ILO guidelines and recommendations.[1]

The survey is conducted regularly every month during the whole year. The results are presented monthly, quarterly and annually.

The first Swedish labour market survey was conducted by the Swedish Labour Market Board (AMS) in May 1959. In August 1961 Statistics Sweden took over the responsibility for conducting the survey. During the period 1961 - 1969, quarterly surveys were conducted, and since 1970 the surveys have been conducted monthly.

The target population in the LFS was originally ages 16-64, but as of 2001 the monthly sample was increased to include 15-year olds and those aged 65-74. However, the presentation continued to only include those aged 16-64. In October 2007, the official presentation was changed to include everyone aged 15-74. In connection with this, tables were also published on this age group back to 2005. The entire LFS system is now in principle linked, excluding subgroups not in the labour force. For the group aged 15-74, the linkage goes back to 2001. For the group aged 16-64, the linkage goes back to 1987.

During the 1960s, the quarterly sample varied between 6 500 and 12 000 individuals. The monthly sample for the period that followed varied between 17 000 and 24 000 individuals. On behalf of the central government, Statistics Sweden increased the total sample in the LFS with a supplementary sample consisting of 8 000 individuals per month. The purpose was to describe the situation on the labour market for the population in more detail. In addition, the dynamics of the labour market are also described using flow statistics. On 8 June 2010, Statistics Sweden began to present the LFS based on the increased sample, which includes a total of 29 500 individuals per month. In connection with the June publishing, all LFS data were revised back in time up to and including January 2010. In 2012 a project was implemented where a new estimator for the LFS was developed that improved the weighting of the two partial samples. In February 2013, LFS data were revised back to January 2010 as a result.

Previously, the Swedish definition of unemployed persons differed from the one of the ILO (International Labour Organization). On 31 May 2007, the Swedish government decided, in accordance with the budget, to revoke the 1986 government decision on the definition *of the concepts in the labour force surveys*. Since October 2007 full-time students who looked for work and were able to work have been classified as unemployed. The government decision to follow the definition of the ILO and the adaptation to the EU in 2005 meant that the previous EU adaptations in the LFS were integrated with the regular LFS. As a result, the LFS now fulfils the national and international requirements of the statistics.

The change that full-time students who actively sought work and were able to

[1] See "Resolution concerning statistics of work, employment and labour underutilization", http://www.ilo.org/wcmsp5/groups/public/---dgreports/---stat/documents/normativeinstrument/wcms_230304.pdf

work were defined as unemployed meant that there are more unemployed persons and thus unemployment increases. The presentation in the basic tables according to the new definition is available from 2005 onwards. Through linking, there are series that refer to unemployed persons according to the current definition back to 2001 for the 15-74 age group as well as back to 1970 for the 16-64 age group.

LFS is a survey based on individuals, but to fulfil the requirements of the EU, the conditions on the labour market are also investigated for households. This is done for one-eighth of the LFS sample. Data on households are delivered to Eurostat, which publishes the data on its website[2]. In addition, special in-depth studies are done annually on various themes requested by Eurostat. However, 2015 is an exception, as no in-depth study will be carried out.

A.11 Use of the statistics

The most important users of the statistics from the LFS include the Riksdag and central government (Ministry of Employment, Ministry of Enterprise, Energy and Communications, Ministry of Finance), Swedish Public Employment Service the National Institute of Economic Research, the Riksbank, and labour market organisations. The LFS at Statistics Sweden is also used in the work with the National Accounts and labour force analyses and forecasts. The press, radio and TV are also significant users that repeatedly use statistics from the LFS.

The results from the survey are used, together with other labour market statistics, as a basis for planning and decision-making on labour market policy measures, as well as for the follow-up of investments in the labour market. The results of the survey also provide important information for the general assessment of the business cycle and for international comparisons. In addition, the LFS meets the demands of economic and social research concerning information from the area of the labour market.

The LFS variables comprise important background variables in labour market-related supplementary surveys to the LFS. These can illustrate different areas, such as working environment, the situation of disabled persons on the labour market, staff training and other closely related issues.

A.12 Design and implementation

The LFS is a sample survey based on individuals and conducted every month. The selected survey individuals answer questions about their situation on the labour market during a specific week of the reference month. The information is mainly gathered from telephone interviews conducted by Statistics Sweden's Survey Unit. The results of the monthly surveys are published shortly after the end of the reference period. These results also form the basis for estimations of quarterly and annual averages.

[2] http://ec.europa.eu/eurostat/web/lfs/data/database

A.13 International reporting

Quarterly data are delivered to Eurostat according to the EU Commission Regulation.

Information for the OECD LFS Questionnaire is delivered to the OECD every year in March.

A.14 Planned changes in future surveys

In 2015, occupational classifications will be coded according to SSYK 1996 and SSYK 2012 (Swedish Standard Classification of Occupations). A transition to SSYK 2012 in the LFS's publications will take place during the latter half of 2015 or January 2016. Beginning January 2016, the coding of occupations will be made according to SSYK 2012 only.

B Quality declaration

B.0 Introduction

Statistics Sweden describes the quality in surveys according to the quality concepts that consist of five main components:

Contents
This section describes the statistic contents to show how well the statistics meet external requirements and requests.

Accuracy
Information in this section reveals the degree of accuracy for the statistics. In order to structure the information, different sources of uncertainty are discussed that have an impact on the statistics' quality. What Statistics Sweden does to minimise these inaccuracies is also discussed here.

Timeliness and punctuality
This section provides information on the duration between the publishing of the statistics and the reference time of the statistics, as well as the publishing frequency and how well the publishing plan has been adhered to.

Comparability and coherence
This section deals with various aspects affecting comparability of statistics over time and between groups, as well as the possibilities of using the statistics together with other statistics.

Accessibility and clarity
This section indicates the media and channels where the statistics are made available. Information is also given about how to gain access to the documentation of the statistics. Other references are provided here to studies, handbooks, etc. that are relevant for the interpretation of results and the accuracy of the statistics.

For more information on the concept of quality of official statistics and a more detailed account of the meaning of the five main components, see the report *Quality definition and recommendations for quality declarations of official statistics* (MIS2001: 1) in the series *Meddelande i samordningsfrågor för Sveriges officiella statistik*. The publication is available on Statistics Sweden's website:
http://www.scb.se/Grupp/Hitta_statistik/Forsta_Statistik/Metod/_Dokument/MIS2001_1.pdf

This quality declaration refers to the Labour Force Surveys of 2015.

The production of the LFS statistics complies with the requirements of the international standard for marketing, opinion and social research, ISO 20252:2007.

The LFS produces monthly statistics about conditions on the labour market and focuses on the number and percentage of employed and unemployed persons. The statistics are presented according to a number of different group divisions about two weeks after the end of each reference month. Among other ways, the presentation is made as statistical news with the overall results (non seasonally adjusted and smoothed and seasonally adjusted data) in basic tables where more comprehensive results are given and in files with seasonally adjusted data. In connection with publication, Sweden's Statistical Databases are also updated with the latest results. Information from monthly and annual statistics and quarterly and annual statistics are also presented in the Statistical Reports series.

B.1 Contents

1.1 Statistical target characteristics

The statistical characteristics/parameters that are primarily estimated present the number and percentage of persons with different labour market conditions for Sweden's population. Examples include employed persons, unemployed persons, the relative unemployment rate, economic activity rate, the number of hours worked and hours of absence.

The estimations provide a basis for calculating different mean values and percentages.

1.1.1 Objects and population

The target population of the LFS consists of persons who are registered in Sweden and who have turned age 15 but not yet age 75. The objects of the survey are individuals.

1.1.2 Variables

The variables in the LFS can be divided into background variables and labour market variables. Background variables are usually register variables, while labour market variables come from the LFS questionnaire and are thus based on

data from interviews. In addition, a number of other variables are used in the production of the LFS for the sample and in the estimation phase. These variables are known as auxiliary variables. Comprehensive information on variables of the LFS is available on Statistics Sweden's website https://www.h6.scb.se/metadata/mikrodataregister.aspx

Background variables

Background variables mainly consist of demographic variables such as sex, age, civil status, children at home, county of residence/metropolitan municipalities and country of birth. Information is retrieved from the LFS sampling frame *Total Population Register (TPR)*. The information on the level of education and study orientation is gathered from the register on educational attainment of the population.

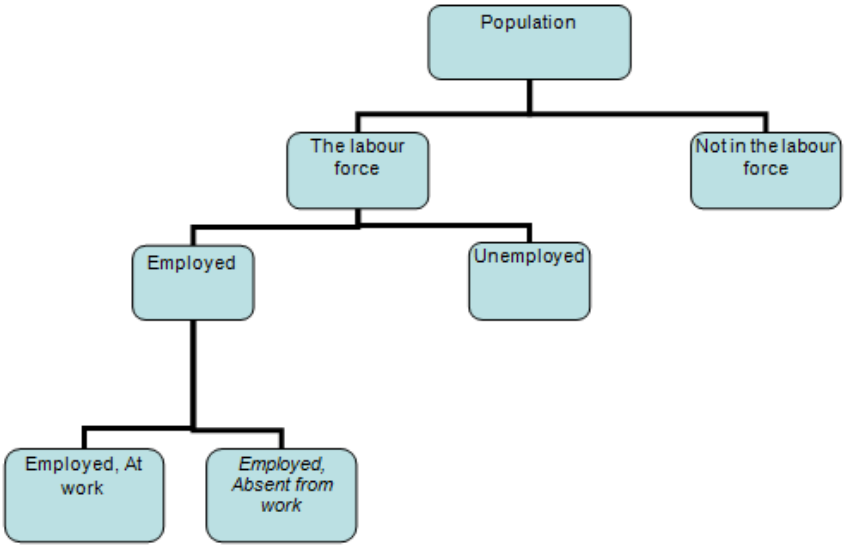
Labour market variables

These variables take into account the labour market situation for the individual during the reference week. However, the presentation characteristics of the LFS do not include weekly conditions but monthly, quarterly and yearly conditions.

The presentation consists of average values of the reference weeks that are included in the "monthly", "quarterly" and "yearly" LFS, which are very similar to the calendar periods. An "LFS - monthly" includes four weeks (five weeks every third month), a "quarterly" includes 13 weeks and a "yearly" consists of 52 (53 as an exception) weeks.

Figure 1 gives the categories for labour force status, which is defined in more detail below.

Figure 1. Basic classification regarding labour force status



The labour force consists of persons who are either employed or unemployed according to the following definitions. Others are classified as *not in the labour force* or with the synonym *outside of the labour force*.

Relative labour force rate: Percentage of persons in the population in the labour force aged 15-74.

Employed persons include the following groups:
- persons who during a certain week (reference week) did some work (at least one hour), either as a paid employee, a self-employed person (including freelancers) or unpaid helper in a business owned by one's husband/wife or another member of the same household (=employed, at work).

- persons who did not do any work according to the above, but who were employed, had a position as a helper in a household or were self-employed (including freelancers) and were temporarily absent during the entire reference week. Absence is counted regardless of whether it was paid or not (= employed, absent from work). Reasons for absence includes sickness, holiday, leave of absence (such as care of children or studies), military duty, labour dispute or leave for other reasons.

- persons who take part in certain labour market policy programmes are included as employed persons. This can include labour market programmes for disabled persons, programmes to start a business, or employment with wage subsidies or employment support.

Permanent employees include persons with permanent employment. That is, employment until the employee gives his/her notice.

Temporary employees include persons who have a substitute position, employment support, seasonal work, trial employment or project employment as well as other forms of temporary employment.

Underemployed persons include persons who are employed but work less than they would like to and who could have been able to work more during the reference week or within 14 days from the end of the reference week.

Unemployed persons include the following groups:
- persons who have been without work during the reference week but who have **applied** for work during the last four weeks (reference week and three weeks back in time) and **were able** to work during the reference week or begin within 14 days from the end of the reference week. Unemployed persons also include persons who have received work that will begin within three months, on the condition that they could have worked during the reference week or begin within 14 days from the end of the reference week.

The relative unemployment rate: percentage of unemployed persons of the total number of persons in the labour force.

In Sweden, people who have been studying full-time up until the LFS of September 2007 have not been classified as unemployed, even if they meet the other conditions for being counted as unemployed. Full-time students in the LFS

refer to persons who attend regular educational curriculums such as compulsory school, upper secondary school and higher education, as well as certain labour market policy programmes that are regarded as educational training. These people have instead been included in the group "not in the workforce". This has been in contradiction to the recommendations from the ILO and guidelines of the EU. Beginning with LFS October 2007, this was changed in line with accepted international standards so that full-time students who are actively seeking work and are prepared to take a job were henceforth classified as unemployed persons.

Not in the labour force: includes persons who are neither employed nor unemployed. The group includes persons who are studying (however, please note the above about full-time students who looked for work and were able to work), pensioners, persons on military duty or those who had a long-term illness.

Latent job seekers: Latent job seekers are a subgroup of persons "not in the labour market". These are persons who had wanted to and could have worked during the reference week but did not seek employment. Up until the LFS in September 2007, full-time students who had looked for work were classified in this group, see above.

Students: Questions are asked whether the person has studied during the reference week and if so whether this was full-time or part-time study. Then the person is asked how many hours he/she studied during the reference week. The European requirements for the LFS were expanded in 2007. As of January 2007, there is also a question about studies at some time during the three weeks closest to the reference week and a question about whether the studies were on a full-time basis. For data up until December 2006, the LFS has consistently asked about the situation only for a specific week, the reference week.

Additional labour market variables
Variables for employed persons
- Important variables are: occupation, position, industry, sector, working time, union membership, secondary occupation, studies and absence. Most of these are defined below with comments.

As of 1997, occupations are classified according to the Swedish Standard Classification of Occupations (SSYK), the Swedish version of the EU's classification of occupations ISCO. SSYK 2012 will be implemented in 2015. During the year, the LFS will code the SSYK 96 and SSYK 2012 to facilitate comparability between the old and new nomenclature.

The categories included here are: employees, self-employed persons and assisting family members. Employees are then further classified as permanent employees (= have a permanent position) and temporary employees (= persons with employment support, seasonal work, trial employment, traineeships, project-linked employment or similar).

The industry is determined by the operations at the workplace where the person is mainly employed.

The coding of industries is adapted to the Swedish Standard Industrial Classification (SNI), which is based on the EU's industrial standard NACE (Nomenclature statistique des Activités Economiques dans les Communautés Européenne). During the period 1995-2002, the LFS was based on the 1992 version of the Swedish Standard Industrial Classification, while the period 2003-2008 used the 2002 version. Beginning with the LFS for January 2009, a new classification for 2007 was introduced to the regular publishing of the LFS. The Swedish industrial classification SNI 2007 is based on the EU's new industrial classification NACE Rev. 2. 2. The number of hours worked according to the previous SNI classification has now been re-calculated in accordance with SNI 2007 and has been published as seasonally adjusted time series from 1987 onwards.

Sector: (For classification of employees) by (central government, municipal or private sector), the LFS has since January 2001 used a harmonised sector presentation based on the Standard Classification by Institutional Sector (INSEKT), 2000. Beginning with the December 2014 LFS, the sector presentation is based on INSEKT 2014. However, the change does not affect the presentation used in the LFS. Classification is based on the sector of the enterprise.

Working time: The number of hours a person works during the reference week is called actual working time while normal working time refers to the working time that the person is contracted to work (or alternatively, for instance, average working time for self-employed persons).

Reasons for absence: Reasons for temporary absence of employed persons during the reference week.

Secondary occupation: Employed persons have a secondary occupation if they answer yes to the question: "Did you have more than one job? This includes work from which you were absent as well as unpaid work in family enterprises".

Variables for unemployed persons
- Occupation, industry, union membership, secondary occupation, etc. are defined as for employees, based on the conditions when the unemployed person was most recently employed. Special variables *for unemployed persons are the number of weeks of unemployment, ways of looking for work, **desired*** working time etc.

Variables for persons outside the labour force
- Persons outside the labour force are classified according to *main activity.* This can be working in the home, pensioner, student, on long-term sick leave etc., according to a person's own assessment.

Degree of attachment to the labour market
The population is classified into the following categories:
Permanent attachment: persons with permanent employment, self-employed persons and their assisting family members.
Loose attachment: People with temporary employment and non-employed persons who have worked at some time during the last 12 months.

Without attachment: Non-employed persons who have not worked during the last 12 months.

Auxiliary variables
Auxiliary information, which is mainly used for the sample and estimation process, comes from five different sources: *Swedish Public Employment Service's register of job seekers, the Employment Register, the Total Population Register, the Register on income and taxation (IoT),* as well as *the Longitudinal integration database for health insurance and labour market studies (LISA).*

The Employment Register is based on statement of earnings from the National Tax Board which is the basis for Statistics Sweden's register-based labour market statistics (RAMS). The Employment Register includes the entire Total Population Register as of 31 December of each year. The register refers to a person's employment situation in November. Publishing occurs about 12 months later.

Information from the Swedish Public Employment Service's register of job seekers is collected monthly and refers to the reference month.

The register on income and taxation is based on register information from the National Tax Board, the Swedish Social Insurance Agency, the Swedish National Board of Student Aid, the National Government Employee Pensions Board, the National Service Administration and the National Board of Health and Welfare. The publishing of the statistics as of 31 December occurs about 12 months after the measurement time.

LISA contains all persons aged 16 and older, who have been registered in Sweden as at 31 December of each year. The database consists of information from the register on income and taxation as well as the Swedish Social Insurance Agency, and is completed about 17 months after the measurement time.

1.1.3 Statistical measures

Most of the statistics from the LFS consist of calculated values of statistical characteristics/parameters in the form of **total number** and **mean values** (with "proportions" sometimes in special cases).

Estimations are presented according to several group divisions, as described in Section *1.1.4. Study domains.* In addition, uncertainty of the statistics is calculated by using estimated **standard deviations** (uncertainty figures are calculated according to 1.96 x standard deviation). The most important target characteristics are listed below.

Characteristics in the form of totals
The main characteristics are *number of employed persons, number of unemployed persons, number of persons in and outside of the labour force* and subgroups of these persons.

Further examples are as follows: For employed persons: *Number of persons at work, total of hours actually worked* and *number of persons who are underem-*

ployed. For employed persons who are studying: *number of hours studied during the reference week.*

Characteristics in the form of mean values

Relative unemployment rate= share of unemployed in the labour force.
Relative labour force rate = share of the labour force in the population.
Employment rate = percentage of employed persons in the population
Relative absentee rate = percentage of persons temporarily absent during the reference week among employed persons.
Average working time (for employed persons)

1.1.4 Study domains

The statistical target characteristics are estimated for a number of different study domains – subgroups of the population – with the help of "classification variables" where background variables play a central part. However, it would take too long to describe the cross-classifications here.

For more information, please see the table package LFS: Grundtabeller: http://www.scb.se/sv_/Hitta-statistik/Statistik-efter-amne/Arbetsmarknad/Arbetskraftsundersokningar/Arbetskraftsundersokningarna-AKU/23265/23272/Tvarsnittsdata---originalvarden-ej-sasongsrensad/262724/.

By and large, all classifications are broken down by sex and age (in 5-year and/or 10-year groups). The following is a brief overview of classification variables:

Statistics on **population**:
Labour force status, children at home (number of children, the age of the youngest child and existing children under age 19), level of education, and Swedish born and foreign born.

Statistics on **employed persons**:
Degree of attachment to the labour market, industry, occupation, sector, occupational position, studies, age, and secondary occupation, usual and actual hours worked.

Statistics on **employed persons** and **employees**:
The number of persons who work full-time or part-time respectively, normal amount of time worked, reason for working less than desired, average desired increase in working time.

Statistics on **employed persons but temporarily absent**:
Main reason for absence, number of hours absent.

Statistics on **unemployed persons**:
Length of unemployment.

Statistics on persons **outside the labour force**:
Main activity, desire to work and possibility for gainful employment.
Latent job seekers: desired working hours.

Quarterly publishing focuses on **the population at work** and its complement, **the population not at work**. The population not at work consists of the groups of employed persons who have been absent from work at least one full calendar week, unemployed persons and persons outside the labour force. The group of employed persons who have been absent from work for the entire calendar week are broken down by reason into the subgroups on sick leave, holiday, parental leave and other. Persons outside the labour force are broken down into the subgroups on sick leave, full-time students, pensioners and others (see Figure 1).

1.1.5 Reference periods

LFS reporting is monthly, quarterly and yearly. These are based on reference weeks and therefore differ slightly form the calendar's months, quarters and year. An "LFS - monthly" includes four weeks (every third month, five weeks), a "quarterly" includes 13 weeks and a "yearly" consists of 52 weeks (53 as an exception). When a year consists of 52 reference weeks, the LFS includes four weeks in October. Since 2015 consists of 53 reference weeks, the LFS includes five reference weeks in October. The placement of the reference weeks during the months of 2015 is presented below.

År 2014		År 2015												År 2016	
December		Januari	Februari	Mars	April	Maj	Juni	Juli	Augusti	September	Oktober	November	December	Januari	
1	M 49	1 T	1 S	1 S	1 O	1 F	1 M 23	1 O	1 L	1 T	1 T	1 S	1 T	1 F	
2	T	2 F	2 M 6	2 M 10	2 T	2 L	2 T	2 T	2 S	2 O	2 F	2 M 45	2 O	2 L	
3	O	3 L	3 T	3 T	3 F	3 S	3 O	3 F	3 M 32	3 T	3 L	3 T	3 T	3 S	
4	T	4 S	4 O	4 O	4 L	4 M 19	4 T	4 L	4 T	4 F	4 S	4 O	4 F	4 M	1
5	F	5 M 2	5 T	5 T	5 S	5 T	5 F	5 S	5 O	5 L	5 M 41	5 T	5 L	5 T	
6	L	6 T	6 F	6 F	6 M 15	6 O	6 L	6 M 28	6 T	6 S	6 T	6 F	6 S	6 O	
7	S	7 O	7 L	7 L	7 T	7 T	7 S	7 T	7 F	7 M 37	7 O	7 L	7 M 50	7 T	
8	M 50	8 T	8 S	8 S	8 O	8 F	8 M 24	8 O	8 L	8 T	8 T	8 S	8 T	8 F	
9	T	9 F	9 M 7	9 M 11	9 T	9 L	9 T	9 T	9 S	9 O	9 F	9 M 46	9 O	9 L	
10	O	10 L	10 T	10 T	10 F	10 S	10 O	10 F	10 M 33	10 T	10 L	10 T	10 T	10 S	
11	T	11 S	11 O	11 O	11 L	11 M 20	11 T	11 L	11 T	11 F	11 S	11 O	11 F	11 M	2
12	F	12 M 3	12 T	12 T	12 S	12 T	12 F	12 S	12 O	12 L	12 M 42	12 T	12 L	12 T	
13	L	13 T	13 F	13 F	13 M 16	13 O	13 L	13 M 29	13 T	13 S	13 T	13 F	13 S	13 O	
14	S	14 O	14 L	14 L	14 T	14 T	14 S	14 T	14 F	14 M 38	14 O	14 L	14 M 51	14 T	
15	M 51	15 T	15 S	15 S	15 O	15 F	15 M 25	15 O	15 L	15 T	15 T	15 S	15 T	15 F	
16	T	16 F	16 M 8	16 M 12	16 T	16 L	16 T	16 T	16 S	16 O	16 F	16 M 47	16 O	16 L	
17	O	17 L	17 T	17 T	17 F	17 S	17 O	17 F	17 M 34	17 T	17 L	17 T	17 T	17 S	
18	T	18 S	18 O	18 O	18 L	18 M 21	18 T	18 L	18 T	18 F	18 S	18 O	18 F	18 M	3
19	F	19 M 4	19 T	19 T	19 S	19 T	19 F	19 S	19 O	19 L	19 M 48	19 T	19 L	18 T	
20	L	20 T	20 F	20 F	20 M 17	20 O	20 L	20 M 30	20 T	20 S	20 T	20 F	20 S	20 O	
21	S	21 O	21 L	21 L	21 T	21 T	21 S	21 T	21 F	21 M 39	21 O	21 L	21 M 52	21 T	
22	M 52	22 T	22 S	22 S	22 O	22 F	22 M 26	22 O	22 L	22 T	22 T	22 S	22 T	22 F	
23	T	23 F	23 M 9	23 M 13	23 T	23 L	23 T	23 T	23 S	23 O	23 F	23 M 48	23 O	23 L	
24	O	24 L	24 T	24 T	24 F	24 S	24 O	24 F	24 M 35	24 T	24 L	24 T	24 T	24 S	
25	T	25 S	25 O	25 O	25 L	25 M 22	25 T	25 L	25 T	25 F	25 S	25 O	25 F	25 M	4
26	F	26 M 5	26 T	26 T	26 S	26 T	26 F	26 S	26 O	26 L	26 M 44	26 T	26 L	26 T	
27	L	27 T	27 F	27 F	27 M 18	27 O	27 L	27 M 31	27 T	27 S	27 T	27 F	27 S	27 O	
28	S	28 O	28 L	28 L	28 T	28 T	28 S	28 T	28 F	28 M 40	28 O	28 L	28 M 53	28 T	
29	M 1	29 T		29 S	29 O	29 F	29 M 27	29 O	29 L	29 T	29 T	29 S	29 T	28 F	
30	T	30 F		30 M 14	30 T	30 L	30 T	30 T	30 S	30 O	30 F	30 M 49	30 O	30 L	
31	O	31 L		31 T		31 S		31 F	31 M 36		31 L		31 T	31 S	

1.2. Comprehensiveness

The LFS illustrates monthly conditions on the labour market in a more or less complete way. See also Section *4.3, Coherence with other statistics*.

B.2 Accuracy

2.1 Total accuracy

Just as with all statistics in general, the LFS statistics are affected by uncertainty. Section *2.2 Sources of errors* presents a review of error sources and their consequences. Those errors that are of utmost significance are sampling errors (occurring because a specific sample has been studied), non-response errors (occurring because answers are missing completely or partly, for certain persons in the survey) and measurement errors (occurring mainly due to misunderstanding of the questions and/or answers).

When assessing how the various errors affect the statistics from a survey, we differentiate between **random errors** which cause random measurable uncertainty of the estimated results and **systematic errors** that affect the results in a certain direction.

The random uncertainty due to among other things sampling errors and random measurement errors are presented in the form of standard deviations or confidence intervals. These intervals are calculated with the help of standard deviations of the estimation. A confidence interval for the estimation $\hat{Y}$ (data on levels or changes) is formed by the expression $\hat{Y} \pm$ k x, where k is a figure that varies with the level of confidence selected for the interval. The figure k=1.96 (≅2) corresponds to the confidence level 95% and k=1.00 corresponds to 70%. A 95% confidence interval has the characteristic that the true value (for instance the number of unemployed persons) in 95 of 100 cases is within these limits, if other errors than random ones are minimal.

Standard deviations regarding the most frequently requested monthly, quarterly and yearly estimations are calculated regularly in the LFS. These estimations are published and are available.

The terms **total uncertainly** or **total error** refer to the total error = systematic error + random error.

It is considerably more difficult to measure the inaccuracy that is due to any systematic errors (skewness). To do so requires special evaluation investments which are often very costly, and thus this measurement is only done intermittently. Studies indicate that most of the LFS statistics are only minimally skewed and the confidence interval gives a good picture of accuracy.

2.2 Sources of uncertainty

2.2.1 Sample

The sample
An LFS sample consists of a number of persons, a subset, from the population (aged 12-74). However, persons under age 15 do not take part in the survey until they have reached age 15.

Because the LFS is a sample survey, the estimations are marred by a sampling

error. To give users an idea of the magnitude of this sampling error, uncertainty figures are reported when publishing. For more information, see Section *2.3 Presentation of uncertainty measures*.

As of January 2010 the monthly sample was increased by 8 000 persons and includes a total of about 29 500 persons. In continuation we call the original sample, about 21 500 persons before the increase, for the regular LFS.

The sample is rotated so that one-eighth is replaced between two consecutive survey rounds. For each sample, this occurs then every three months. In other words, persons in the sample are interviewed once per quarter and for a total of eight times over a two-year period, after which time they are replaced by new sample individuals.

Persons who have been in poor health or admitted for care extending more than one year, as well as retired persons over age 64 who are not employed or looking for work are interviewed once a year, and in every eighth survey round.

The regular LFS
The sampling process can be described as **stratified systematic sample with rotating panel samples.** Sample strata are created by different combinations of regions (24) and sex (2) for a total of 48 strata, where region is comprised of county of residence as well as the metropolitan municipalities of Stockholm, Göteborg and Malmö. Within each stratum, individuals are sorted by country of birth (domestic/foreign-born) and civic registration number. Then the sample is drawn from four different starting points to avoid any systematic presence in the frame.

The sampling fraction varies among counties; for example, smaller counties have a higher fraction than larger counties. This is due to existing requirements for special presentations for regions. The sampling process is designed so that a monthly sample includes 21 500 individuals aged 15-74. The age groups 15 and 65-74 have a somewhat lower sampling fraction than the group aged 16-64. This is because participation in the labour force is low in the former age groups.

Supplementary sample
Each month the supplementary sample includes a total of 8 000 persons aged 16-66. The sampling process can also be described as **a stratified systematic sample with rotating panel samples**.

The sampling strata are created by using information from the Total Population Register, LISA and the Register on income and taxation (IoT). A total of 70 strata are created for Swedish born by combining ages (3), regions (7), information from LISA and the IoT (2) and sex (2). A total of 35 strata are created for foreign-born persons by combining ages (3), regions (7) and information from LISA and IoT (2).Thus there is a total of 105 different strata. Counties are divided into seven regions where each region consists of one or more counties. Within each stratum, individuals are sorted by civic registration number. Then the sample is drawn from four different starting points. The reason for the four different starting points is the same as for the regular LFS - to avoid any

systematic presence in the frame.

A sample is drawn for the age group 25-66 so that 80 percent of the total sample will capture persons not at work according to indications from LISA and IoT.

Estimation procedure
From 1999 onwards, the estimation system in the LFS is based on the GREG estimation (General Regression estimator). The switchover in 1999 was intended to integrate national estimations and regional estimations in one and the same system to avoid previous inconsistency. The system was developed with the restriction that there would be no breaks in time series for estimations on the national level. The system was therefore based on two GREG estimators instead of one. From April 2005 onwards, a GREG estimator has been used and estimation was expanded to include the age group 15-74. Beginning January 2010 the supplementary sample has been included in the published results.

Since 1993, auxiliary information from the Total Population Register, the Employment Register and the job-seeker register of the Swedish Public Employment Service has been used in estimation. Compensation for non-response occurs with the help of straight upward adjustment as in the regular LFS stratum, as well as for the supplementary sample.

The starting point for the estimation process in the LFS is to estimate totals for a certain time period, monthly. Estimations for quarters and years are based on these monthly totals.

In simple terms, the estimations can be seen as the weighting together of separate estimates for the various yearly samples to a monthly estimation. The principle is formalised as follows:

A total, t_y, for example "total number of unemployed persons per month" is estimated by

$$\hat{t}_y = \sum_j c_j \hat{t}_{y_j}$$

and the variance for $\hat{t}_y$ is estimated using

$$\hat{V}(\hat{t}_y) = \sum_j c_j^2 \hat{V}(\hat{t}_{y_j})$$

where c_j is a constant that weighs together the sample years.

$\hat{t}_{y_j}$ = Estimation of a total based *on the part of a monthly sample that is from the yearly sample*

In Mirza, Hassan & Hörngren, Jan (2001): Urvals- och estimationsförfarandet i de svenska arbetskraftsundersökningarna. "*Bakgrundsfakta till arbetsmarknads-*

och utbildningsstatistiken 2001:5” gives a detailed description of among other things how estimation is done for the period 1999 - March 2005.

In Videll, Frida (2011):Urvals- och estimationsförfarandet i de svenska arbetskraftsundersökningarna (AKU) 2005- “*Bakgrundsfakta till arbetsmarknads- och utbildningsstatistiken 2011:6*” gives a detailed description of the sample and estimation processes from 2005 onwards.

2.2.2 Frame coverage

The Total Population Register (TPR) comprises the sampling frame from which the survey population is collected. The survey population includes about 7 000 000 individuals.

The TPR is updated daily via notices from the National Tax Board about births, deaths, from registrar (tax) on births, deaths, moves within the country, immigration and emigration. The TPR contains demographic variables (for example, sex, age, place of residence) that affect the drawing of the sample and these are used as starting values for the background variables (see Section *1.1.2 Variables).*

Deficiencies in coverage are partly due to the undercoverage that occurs when persons living in Sweden are missing from the sample frame (Total Population Register) and partly due to overcoverage that occurs for instance when persons in the sampling frame are no longer included in the country's population.

Undercoverage
The undercoverage that exists in the LFS is mainly because immigrants (“immigrants” + "persons returning home") enter the Total Population Register after a certain "lag". However, the effect on the statistics is considered to be highly insignificant.

A little more complicated is that the LFS sample is drawn once a year, and the sampled persons are interviewed over a two-year period. A sample panel drawn during a certain year thus does not take into consideration those persons who settle in Sweden during the following interview period. This condition is also considered to have only a marginal effect on the LFS statistics.

Overcoverage
The overcoverage is mainly due to the "lag" in reporting deaths and emigration. These persons should really not be included in the sampling frame and the "deficiency” in question is not usually discovered since these people are not reached for an interview. Thus they are incorrectly classed as "non-response" even though the category "overcoverage" is adequate. The quick procedures for updating the Total Population Register means that when drawing the sample, the frame is considered to have insignificant overcoverage.

These deficiencies in total lead to a small and undesired skewness in the statistics. The overcoverage in question is assessed to be 25 000 - 50 000 persons. For more information, see Section 2.2.4 *Non-response*.

In summary, Statistics Sweden assesses that the deficiencies in the LFS sampling frame, both concerning undercoverage and overcoverage, do not distort the statistics in any significant way.

2.2.3 Measurement

Data collection
Information for the LFS is collected by interviewers at Statistics Sweden by computer-assisted telephone interviews, according to a standardised form available on Statistics Sweden's website http://scb.se/Statistik/AM/AM0401/_documents/LFS-First-wave-questionnaire.pdf

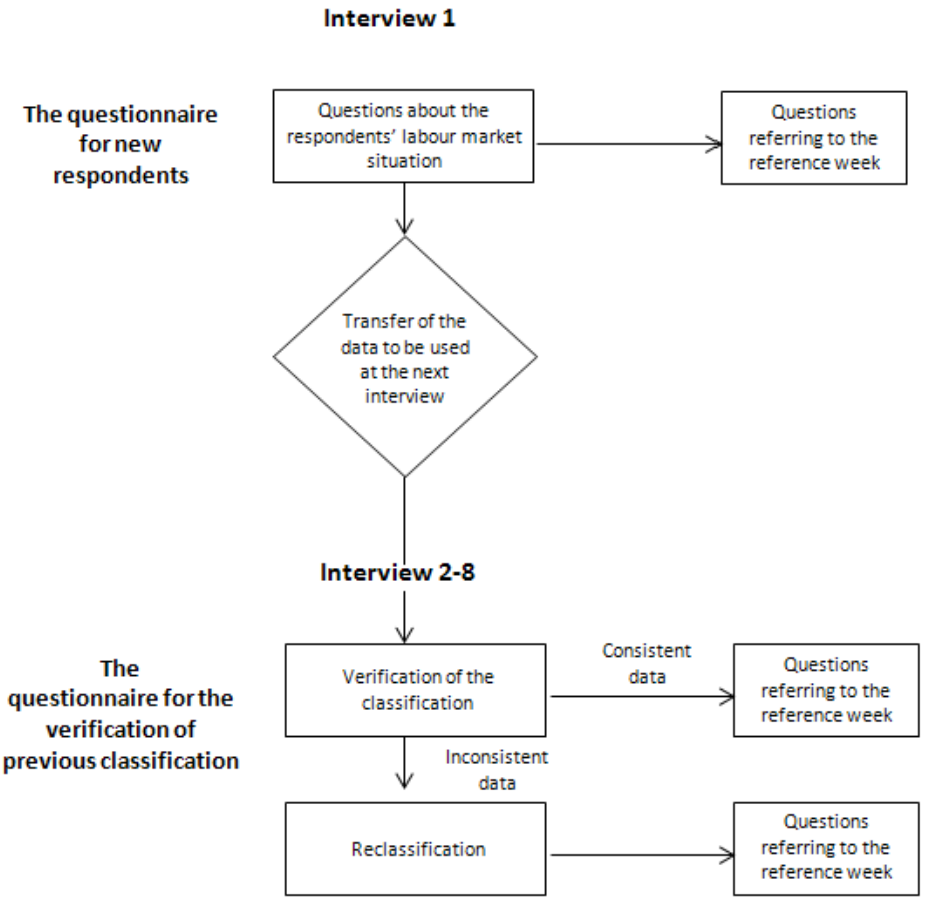
The number of interviewers who conduct LFS interviews varies between 210-250 people per month.

The selected survey participants are informed about two weeks in advance in a letter that they have been chosen to take part in the LFS through an upcoming telephone interview. During the first interview a detailed study is made of the person's labour market situation, in general and for the specific reference week. In the following interviews, only changes for certain variables such as labour force status, occupation and workplace are registered. However, information about the work situation during the reference week is registered each time, regardless of previous answers.

If it is not possible to reach the selected person by telephone, a face-to-face interview is done in a few cases. In some cases, for example during illness or with language difficulties, an indirect interview is conducted, which means that another person answers on behalf of the selected person. Interviews concerning a certain reference week begin the day after the end of the week. Most of the interviews are conducted within the course of 15 days after the reference week. Data collection is illustrated in Figure 2 below.

In 2012, listening in on interviews was introduced centrally at Statistics Sweden as part of the work with ISO certification activities. To meet the requirements, 5 percent of all interviews must be monitored by listening in. Since the LFS sample consists of recurring panels, listening in occurs for some 5 percent unique persons during the year.

Figure 2. Flow chart for data collection



Measurement errors

Statistics Sweden conducted a re-interview study in 2012/2013 to gain an understanding of measurement errors and their possible distorting effect. The study shows that data from the LFS contain no major (net) measurement errors. The gross error (that is, incorrectly included and incorrectly excluded units) for labour force status (employed, unemployed, not in the labour force) amounted to two percent and the gross error for the variable, degree of attachment (permanent, temporary, without attachment), amounted to six percent.

2.2.4 Non-response

Non-response occurs when the value of one or more survey variables in a survey cannot be collected. If all the values for a survey object, person, are missing, this is called **unit non-response***;* if only some of the values are missing, it is a question of **item non-response.**

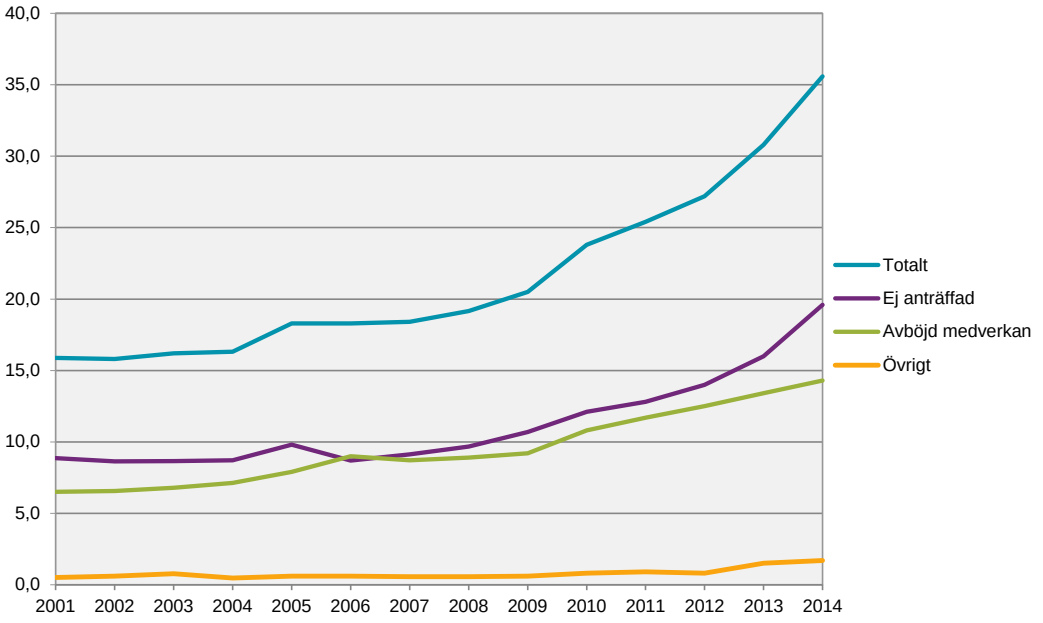
The main reasons for unit non-response are either that the person in question could not be reached for an interview or refused to take part in the survey. Non-response for each survey round is presented on Statistics Sweden's website in

the LFS base tables (Grundtabeller) under tab 39:
http://www.scb.se/sv_/Hitta-statistik/Statistik-efter-amne/Arbetsmarknad/Arbetskraftsundersokningar/Arbetskraftsundersokningarna-AKU/23265/23272/Tvarsnittsdata---originalvarden-ej-sasongsrensad/262724/

A sample person in the LFS is considered a respondent, i.e. not a unit non-response, if answers are obtained for those questions that form the basis for the classification of employment status, the degree of attachment to the labour market. For the employed person, answers are also required for questions about hours worked. If the sample person is classified as a respondent, but information is missing for some other questions than these, then there is item non-response for the relevant question.

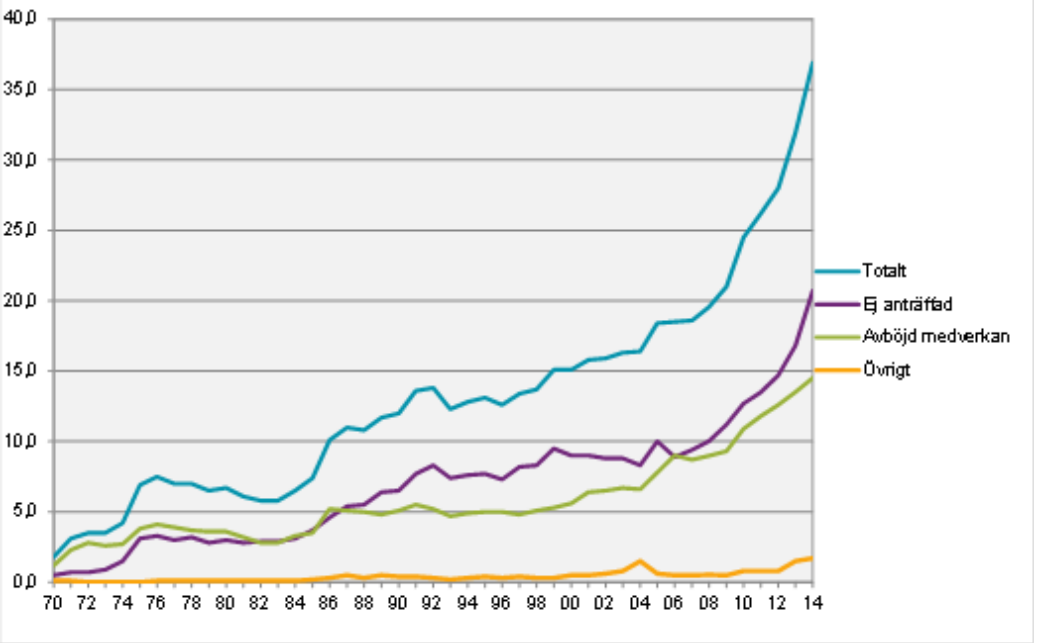
From 2001 onwards, the target population includes the age interval 15-74 years. The target population in the LFS was originally 16-64 years. To provide a complete picture, two graphs are therefore shown below on the development of non-response.

Figure 3. Non-response in the LFS 2001-2014, age group 15-74 years, unweighted in percent on a yearly basis.



The graph below shows the development of non-response between 1970 and 2014.

Figure 4. Non-response in the LFS 1970-2014, age group 16-64 years, unweighted in percent on a yearly basis.



Measures to avoid non-response
Statistics Sweden searches for telephone numbers for new people in the sample. Telephone numbers for about 85 percent of the selected survey participants are obtained in this way. For those people where a telephone number has not been obtained from the automatic telephone search and for people who had the wrong phone number, a manual procedure provides additional phone numbers. For those persons in the sample for whom a phone number was not found automatically, a cover letter is sent out together with a complementary letter where they are requested to give the telephone number they want Statistics Sweden to use, and also provide a suitable time for the contact. The contact letter can be sent by postal mail or e-mail to Statistics Sweden or alternatively submitted by a telephone call. Statistics Sweden has telephone numbers for rotation group 3[3] and above for about 92 - 94% of the sample.

The interviewers are also trained in how to handle refusals. Following the basic training, the interviewers work with those surveys they have been assigned for a period of about two years. In the beginning, the interviewer has the support of a mentor and regularly discusses how to handle refusals in order to become more independent as time goes by. Supplementary training occurs after two years when the interviewer is trained in how to handle refusals, i.e. to learn argumentation and to inform persons who have a negative attitude at the outset or have been hesitant to be interviewed.

[3]A monthly sample is divided into eight sample groups of equal size. Persons in the first rotation group are a part of the LFS for the first time, while the other rotation groups are there for the second time, etc. See 2.2.1 Sample.

Measures to minimise error as a result of non-response.
To reduce the distorting effects of non-response, Statistics Sweden has since 1993 used auxiliary information in the estimation process from Statistics Sweden's employment register and the Swedish Public Employment Service's register of job seekers. The auxiliary information consists of variables that interact with the central variables in the LFS and with the distribution of answers and non-response. By using the auxiliary information in this way, the non-response error is reduced significantly compared to the previous estimation process. The non-response error for employed persons was estimated to have been reduced to less than 1 percent, and for unemployed persons to less than 3 percent. No study has been done in recent years to estimate the systematic error due to non-response.

Besides these measures, Statistics Sweden makes no further adjustments for either unit non-response or item non-response. Substitution (replacing a respondent's missing answers by answers from another person) and imputation (assumptions about how a person would have answered) are not methods used in the LFS.

2.2.5 Processing

Data registration
Since the telephone interviews are computer-assisted, the main part of data registration occurs in direct connection to the data collection.

Checking
Checking, and any changes, are mainly carried out during the interview by examining logical relationships and reasonableness. Computer-assisted controls are built into the interview program for this purpose. An additional round of checking and correcting for any registration errors from the interviews is carried out in connection with downloading answers into the database tables.

Coding
Coding of 'open' responses is done using the variables occupation and socio-economic group as well as industry and sector. Occupations are coded according to SSYK 96 (the Swedish Standard Classification of Occupations) and ISCO-08 (International Standard Classification of Occupations). In 2015, occupations will also be coded according to SSYK 2012. Socio-economic group is coded according to the Swedish classification SEI (Socio-economic Classification).

Industry coding is done according to SSYK 2007 (Swedish Standard Industrial Classification). Beginning December 2014, sector coding is done according to INSEKT 2014 (the Standard Classification by Institutional Sector).

Nearly 80 percent of the occupational and SEI codes are set by matching against a list of occupations in connection with the interview. When it is not possible to carry out automatic coding, codes are set manually at a later stage by a central coding group. The group uses the responses from open questions regarding job titles and job descriptions (what is performed at work).

In 2014, Statistics Sweden conducted a control study of coding during the LFS interviews. The study results show that about 97.2 percent of the SEI categories were coded correctly at the highest reporting level (one-digit level). The study also showed that 96.9 percent of the Swedish standard classification occupational categories were coded correctly at the highest reporting level, and that 96.8 percent of the ISCO-08 categories were coded correctly at the highest level.

A control study of the manual coding for 2013, which refers to more difficult coded occupations, found that about 83.2 percent of the SEI categories, 84.5 percent of the SSYK categories and 84.4 percent of the ISCO-08 categories were coded correctly at the highest reporting level. All in all, it is estimated that about 94 percent of the SEI, SSYK and ISCO-08 codes respectively are set correctly based on the controls studies.

For industry and sector coding, information from the Statement of Earnings Register is utilised already at the interview; about 50 percent of the coding takes place here. No control study has been carried out for this part. For the remaining codes, data are collected from the open questions at the interview. Coding is then done manually with computer support based on these data and information from the Business Register. A control study for 2013 showed that the percentage of correctly set industry codes was 94.8 percent at the two-digit level (the highest reporting level used) for this part, and the percentage of correctly set sector codes was 99.1 percent at the one-digit level (the only reporting level).

In general, coding errors give rise to incorrect classifications, which in turn give rise to errors in the statistics. The size of some groups may be slightly overestimated, e.g. with respect to the number of persons employed, at the expense of other groups that will be underestimated.

2.2.6 Model assumptions

Simple upward adjustment is used for the LFS statistics. This involves the assumption that the response propensity is homogeneous within the response homogeneity groups. The procedure is discussed in more detail in Section *2.2.1 Sample*.

Seasonal adjustment
Seasonal adjustment of the LFS time series is done with a method that is built into the standard program X12-ARIMA.[4] The method uses time series analysis as a basis for trend cycle and seasonal component estimation. Seasonal adjustment in the LFS assumes that all time series follow an (S)ARIMA(p, d, q) x (P, D, Q)$_S$ –model where d =1, D=1, and S=12, without being transformed. All series are differentiated one time with reference to the periods that lie nearby, and one more time twelve months back in time. The seasonal components are calculated with a symmetrical 3x5 filter, and trend cycle components are calculated with a Henderson 23-point gliding average value, also symmetrical. When deriving the trend cycle and seasonal components, these are assumed to be additive.

[4] Findley, D. F., Monsell, B. C., Bell, W. R., Otto, M. C. and Chen, B. C. (1998). *New capabilities and methods of the X-12-ARIMA seasonal adjustment program (with discussion).* J. Bus. Econ. Statist. 16, 127-177.

2.3 Sources of uncertainty

For each table in the table package for the LFS Basic tables for each month, quarter and year, there is a corresponding table with uncertainty counts. Among other things, these can be used to create confidence intervals. The uncertainty counts correspond to a 95-percent confidence interval (standard deviation multiplied by 1.96). Uncertainty counts are available for estimations of levels, adjacent time periods and changes one year ahead.

B.3 Timeliness

3.1 Frequency

The LFS is conducted monthly and the statistics are presented monthly, quarterly and annually.

3.2 Production time

Basic tables and seasonally adjusted data
Data collection is normally completed 14 days after the end of the month's last reference week. Publishing occurs another one to two days afterwards for monthly and, if applicable, quarterly statistics. In connection with the publishing of tables that refer to the month of December as well as the final quarter, annual tables are also published. Seasonally adjusted monthly data are published at the same time as the monthly basic tables.

Statistical Reports
The production time for the quarterly Statistical Report that describes the labour market situation for the entire population aged 15-74 is about four weeks and for the annual Statistical Report about eight weeks after the end of the reference period.

In addition, a Statistical Report is published quarterly in the form of a theme report; production time for this is about seven weeks. The purpose of the theme report is to illuminate labour market conditions, for example, for different groups in the population.

3.3 Punctuality

The date for planned publishing is available in the publishing calendar for Sweden's official statistics on Statistics Sweden's website, http://www.scb.se/en_/Finding-statistics/Publishing-calendar/

B.4 Comparability and coherence

4.1 Comparability over time

Since the start in 1961 when Statistics Sweden took over the LFS, no major changes were made to the survey until 1987. In order that the survey would better reflect the conditions and capture changes on the labour market, a

comprehensive revision of the contents (including definitions) was made and implemented in the 1987 survey. This revision made it more difficult to make comparisons backwards in time. In order not to lose comparability of the LFS results before and after 1987, data collection and processing were done for the year 1986 according to the old and new procedures.

In 1993 a new procedure for estimations was introduced with revised non-response compensation (post-stratification) and a new system of measurement weeks. Today all reference weeks are measured over the year, while previously only two of the "month's" four or five weeks were measured.

From 2001 onwards, the new Swedish classification system of education SUN 2000 was used. This together with other measures to improve quality in the Register of educational attainment of the population (from which the LFS collects information on the level and orientation of education) led to a break in the time series compared to previously published estimations. Concerning the level of education, the quality improvement led to a sharp increase for certain levels compared to previous years, for instance for post-secondary education of three years or more. The new nomenclature system in SUN 2000 means that codes for educational orientation have different content compared to previously.

Like the revision in 1987, the changes in 1993, 1995 (Swedish Industrial Classification), 1997 (Swedish Standard Classification of Occupations) and 2005 resulted in breaks in the time series. To be able to compare the LFS results before 1995 with results from later years, considerable linking work has been done, and the statistics for 1987 - 1994 have been adjusted with consideration to the changes in 1993 and 1995. However, no linking between the old and new occupational standards has been done. The two standards are based on completely different classification principles.

The Swedish industrial classification SNI92 was used during 1995 - 2002 and SNI2002 was used during 2003-2008. The Swedish industrial classification SNI 2007 has been used for the LFS from January 2009 onwards. Since 1997, the new standard for occupational classification SSYK has been used. In 1999 GREG estimation was introduced (see Section *2.2.1*, Sample), which was improved in 2005. Similar to 1993, the changes for 2005 linked the old LFS with the new EU-adapted LFS. Linking has been done backwards in time to 1994 (ages 16-64) for selected variables. The sector divisions were changed in 2001 according to the Standard Classification by Institutional Sector, 2000 (INSEKT 2000). For the LFS, this means that public service companies (previously under central government) and the Church of Sweden (previously under municipalities) are presented as "private" and that the government insurance offices (previously under municipalities) are presented as under central government, "Private sector" is a collective name in labour market statistics for units that do not belong to the central government or municipality sector according to the standard. These changes led to breaks in the time series. Estimations for the year 2000 have been produced for the sake of comparisons with the estimations of 2001. Beginning with the December 2014 LFS, sector reporting was updated according to INSEKT 2014. The change has no effect on the LFS time series.

Previously, the Swedish concept of unemployment did not include full-time students who had looked for work and were ready to work. From the LFS October 2007 measurement onwards, this was changed to comply with international standards so that full-time students who actively looked for work and are ready to work are counted as unemployed.

The LFS has previously presented the age group 16-64. Starting with the October 2007 measurement, the LFS began to present the age group 15-74, according to EU regulations. However, the tables present the age group 16-64 as a subgroup.

From the publishing of the LFS for October 2007 onwards, Statistics Sweden has presented all results in accordance with the ILO recommendations and EU regulations.

In April 2005, a new EU-adapted LFS was introduced, involving a new break in the time series. Further changes occurred beginning with the 2007 LFS, see Section *4.2 Comparability over time*. Comprehensive work with linkage was carried out during 2010 to overcome these time series breaks. The series for the 15-74 age group are linked back to January 2001 when the data began to be collected for this age group. All series for the 16-64 age group in the LFS are linked back to 1987. Certain central series are linked back to 1970.

Ahead of 2010, a number of questions in the LFS were revised in order to minimise the risk of misclassification of the labour force status of sample persons. Previously, there was a risk that the sample persons included in Phase 3 of the activity and development guarantee would wrongly regard this activity as work. The scope of Phase 3 was very limited during 2009, but it was expected to increase during 2010 because more persons had finished the first two phases. Before changing the questionnaire for 2010, we may have overestimated employed persons and underestimated unemployed persons, but probably only slightly because the scope of Phase 3 was limited.

A new system for seasonal adjustment has been developed for the LFS. In February 2010, the first edition of the most central series seasonally adjusted by month (including smoothed and seasonally adjusted values) was published on the website product pages of the LFS. During 2011, additional seasonally adjusted series were published concerning the number of hours worked broken down by industry. During 2012 and 2013, a number of new modules were published with seasonally adjusted data. These contain series with persons outside the labour force broken down by reason and a number of series with employed persons in different distributions.

In 2014, existing seasonally adjusted data were supplemented by quarterly estimations. In addition, seasonally adjusted data were published for the population broken down by labour force status and for the degree of attachment broken down by Swedish born and foreign born persons. The age group 20-64 will be introduced for all modules.

The requirements for high timeliness are considerable since the LFS should

quickly give indications of developments in the labour market. The seasonally adjusted series give a more current description of the labour market by making possible comparisons between adjacent months. The files containing the seasonally adjusted series also contain seasonally adjusted and smoothed series where other disturbances and random variations have been eliminated. Thus, they provided a clearer picture of economic trends. Linked data have been used to seasonally adjust the long time series.

The new system for seasonal adjustment allows the possibility for both Statistics Sweden (internally) and main users (nationally and internationally) to use the same seasonally adjusted data.

4.2 Comparability between groups

Beginning with the measurement for October 2007, the LFS follows international recommendations and standards for classification. Coherence with labour force surveys of other countries is thus good.

Because the LFS is a survey and not a system of surveys, comparability among the different subgroups in the population aged 15-74 is very good.

4.3 Coherence with other statistics

Besides the LFS, Statistics Sweden produces statistics on some other surveys, - particularly the Register-based labour market statistics (RAMS) and Enterprise-based employment statistics as well as within the National Accounts. However, the results from these surveys are not completely comparable with the LFS, mainly because of differences in definitions, survey methods and reference time periods.

In addition, the Swedish Public Employment Service publishes monthly statistics on the "number of job seekers" (persons registered as seeking jobs at the Employment Service offices, and who can begin to work immediately). The monthly statistics from the Swedish Public Employment Service office are a good complement to the LFS, especially because they are complete and can be broken down in more detail on a regional level than LFS's sample-based statistics.

Despite the differences among the statistics sources, all in all they give a good picture of employment and unemployment in the country.

The unemployment rate of the LFS is the official unemployment rate.

B.5 Accessibility and clarity

5.1 Dissemination forms

The LFS is presented monthly, quarterly and yearly. The initial presentation of the most important monthly results is made in Statistical News; at the same time updates are made to the LFS table package, Sweden's Statistical Databases, etc. on Statistics Sweden's website.

A detailed presentation of the results for monthly, quarterly and yearly statistics occurs in the **Basic Tables**, which include non seasonally adjusted data. Since April 2005 the basic tables include margin of error figures, while previously these were released in special publications (Standard deviations). For more information, *see Section 2.3 Presentation of uncertainty measures*. There are also **seasonally adjusted data** for monthly and quarterly statistics, trend estimations and linked data, *see Section 4.1 Comparability over time*.

For quarterly statistics there are also flow tables and tables that describe **the population not at work**, i.e. those who have been absent from work the entire week (unemployed, poor health, retired persons, full-time students, etc.). In addition, a number of *quarterly and yearly* supplementary tables that are not included in Sweden's official statistics are produced. The results from the LFS for quarterly and yearly statistics are also regularly presented *in the Statistical Reports series*. The Statistical Reports for quarterly and yearly statistics include a description of the current situation on the labour market for the entire population aged 15-74. The quarterly Statistical Report also includes a theme. Each quarter as theme is chosen to illustrate the conditions on the labour market e.g. for different groups in the population.

Comprehensive information for monthly, quarterly and yearly statistics is published in Sweden's Statistical Databases.

In addition, certain results from the LFS are published in Statistics Sweden's Statistical Yearbook of Sweden, SCB Indikatorer (Statistics Sweden Indicators) and Byggindex (Construction Index).

In addition, special tables have been produced on commission, which cover special needs of users.

5.2 Presentation

Described mainly in Section *5.1 Dissemination forms* above.

Summarised presentations of LFS statistics from previous years, with time series and statements for definitions and survey methods are available on Statistics Sweden's website: http://www.scb.se/en_/Finding-statistics/Statistics-by-subject-area/Labour-market/Labour-force-surveys/Labour-Force-Survey-LFS/. The publication series numbers for quarterly and yearly reports are AM11 SM and AM12 SM respectively. From 2005 onwards, the Statistical Reports are only published on the website on the Internet. The Statistical Reports also include brief quality descriptions of the LFS statistics.

The following Statistical Reports have been published:
1961 – 1969 in AM 1969:57
1963 – 1975 in AM 1978:32
1970 – 1980 in AM 1981:33
1976 – 1985 in AM 12 SM 8602
1980 – 1990 in AM 65 SM 9101
1985 – 1994 in AM 65 SM 9501

The above printed publications are available at Statistics Sweden's library, Box 24 300, SE-104 51 Stockholm, Sweden. Visiting address: Karlavägen 100. Telephone +46 8 5069 5066 or 5069 4801, fax +46 8 5069 4045, e-mail: library@scb.se

5.3 Documentation

The production of the statistical register and the statistics are described in *Documentation of the statistics (SCBDOK)*. The quality of the statistics is described in this document, *Description of the Statistics (BaS*). Detailed information about microdata is described in the *Documentation of microdata (MetaPlus).* All documentation is available on Statistics Sweden's website www.scb.se/AM0401

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5.4 Availability of microdata

Statistics Sweden can process microdata to order. Following approval, researchers and others can obtain access to unidentifiable material for their own processing.

5.5 Information services

Further information:
Please contact Statistics Sweden via e-mail aku@scb.se or by telephone +46 8 5069 4801 (Statistics Sweden's Statistics Service).