REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND THE COUNCIL

on the implementation of Council Regulation (EC) No 577/98

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1. **INTRODUCTION**

Council Regulation (EC) No 577/98 on the organisation of the labour force sample survey in the Community[1] sets minimum standards for the harmonised production of labour force surveys in the European Union and its Member States. It was amended in 2002, 2003 and 2007[2].

Article 7 of Regulation (EC) No 577/98 states that:
'A report on the implementation of this Regulation shall be submitted by the Commission to the Parliament and the Council every three years, beginning in the year 2000. This report shall evaluate in particular the quality of the statistical methods envisaged by the Member States to improve the results or to lighten the survey procedures.'
This is the Commission's fifth report to the Parliament and the Council.

Section 2 gives an overview of the European Union Labour Force Survey and its relevance to supporting European Union policies.

Section 3 takes stock of how Regulation (EC) No 577/98 has been implemented in the Member States, in Candidate countries, in EFTA countries and in Switzerland.

Section 4 focuses on ongoing initiatives launched by the European Statistical System[3] (ESS) to improve the quality and reduce the burden of the Labour Force Survey.

2. **OVERVIEW OF THE LABOUR FORCE SURVEY**

2.1. **General description**

The European Union Labour Force Survey (hereinafter referred to as EU-LFS) is a large sample survey of residents in private households. It provides both quarterly and annual labour market statistics, on employment and unemployment, as well as on people outside the labour force. It also collects multi-annual information from ad hoc modules and provides input for model-based monthly estimates of unemployment and unemployment rates.

The **national statistical institutes** of the Member States are responsible for designing national questionnaires, drawing the sample, conducting interviews and sending results to the

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[1]   OJ L 77, 14.3.1998, p. 3.
[2]   Commission Regulation (EC) No 2104/2002 (OJ L 324, 29.11.2002, p. 14), Regulations (EC) No 1991/2002 (OJ L 308, 9.11.2002, p. 1), (EC) No 2257/2003 (OJ L 336, 23.12.2003, p. 6) and (EC) No 1372/2007 (OJ L 315, 3.12.2007, p. 42) of the European Parliament and of the Council.
[3]   The ESS is the partnership between the European statistical authority, which is the European Commission (Eurostat), and the national statistical institutes and other national authorities responsible in each Member State for the development, production and dissemination of European statistics.

Commission (Eurostat) in accordance with a common coding scheme established by Commission Regulation (EC) No 377/2008[4].

Eurostat is in charge of monitoring the implementation of Regulation (EC) No 577/98, providing assistance to national statistical institutes, promoting harmonised concepts and methods, and disseminating comparable national and European labour market statistics.

The EU-LFS sample size is 1.8 million people every quarter, covering 33 participating countries[5]. This makes the EU-LFS the largest household survey in Europe.

2.2. Relevance

The EU-LFS is the most important source of official statistics on labour markets in the European Union. All in all, it collects more than 100 variables on labour status, employment characteristics, working time, educational background and training of individuals, complemented by thematic yearly ad hoc modules[6]. Based on international standards and definitions, it has relevance beyond European Union borders, enabling the situation in the European labour market to be compared with that in other areas or countries.

Some key EU policy initiatives rely on EU-LFS data to monitor progress. For instance, the EU-LFS is one of the main data sources for monitoring Member States' progress under the employment guidelines in the context of Article 148 of the Treaty on the Functioning of the European Union[7] (TFEU) and the EU's growth strategy, Europe 2020. Two of the five Europe 2020 headline targets are monitored with LFS indicators (75 % target for employment rate 20-64; share of early school leavers under 10 %; at least 40 % of 30-34 years to have completed tertiary education). Many other LFS-based indicators are used under the Europe 2020 Joint Assessment Framework. The EU-LFS data also played a key role in the Lisbon Strategy (2000-2010).

The LFS-based monthly unemployment rate is an important short-term economic indicator. It is one of the Principal European Economic Indicators[8], also used to build moving annual averages of unemployment rates for the scoreboard of economic and financial indicators to detect macroeconomic and competitiveness imbalances. The EU-LFS provides input for national accounts information on employed persons and on working time, and on other areas beyond the labour market, such as education.

Finally, the EU-LFS is one of the most important sources of statistical microdata for researchers in Europe. The large samples enable studies to be done on specific groups in the labour market. There is also broad coverage of demographic, regional and educational background variables, among others.

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[4] OJ L 114, 26.4.2008, p. 57.
[5] Participating countries are the 27 Member States, Iceland, Norway, Switzerland, Croatia, the Former Yugoslav Republic of Macedonia and Turkey.
[6] The ad-hoc modules in 2008, 2009 and 2010 were:
2008: *Labour market situation of migrants and their immediate descendants*
2009: *Entry of young people into the labour market*
2010: *Reconciliation between work and family life.*
[7] See Council Decision 2011/308/EU of 19 May 2011 on guidelines for the employment policies of the Member States, OJ L 138, 26.5.2011, p. 56.
[8] See *Principal European Economic Indicators — A statistical guide*, Eurostat 2009.

3. IMPLEMENTATION OF THE LABOUR FORCE SURVEY

3.1. Accuracy

Estimates from sample surveys are subject to two types of errors: sampling errors and non-sampling errors. Together, they determine the *accuracy of the estimates*. Sampling errors occur because only a subset of the whole population is surveyed. Non-sampling errors are all other errors introduced that are not the result of sampling (coverage errors, measurement errors, processing errors, non-response errors).

As regards sampling errors, the size of the sample is the main determinant of sampling errors. Larger samples improve the accuracy of the results. The table below shows the size of the sample interviewed each quarter in each participating country, in absolute terms and compared with the total population. The sampling rate[9] ranges from 0.2 % (Belgium, Germany, France, United Kingdom, Croatia, and Turkey) to 1.6 % (Malta). On average, the quarterly sample size was 1.8 million individuals in 2010, 0.3 % of the total population in the 33 countries taking part.

European Labour Force Survey
Achieved sample size and percentage of the total population (average 2010 quarters)

	Quarterly sample size (thousand)	Percentage of total population		Quarterly sample size (thousand)	Percentage of total population
BE	26	0.2 %	NL	96	0.6 %
BG	34	0.4 %	AT	46	0.5 %
CZ	59	0.6 %	PL	104	0.3 %
DK	30	0.5 %	PT	40	0.4 %
DE	174	0.2 %	RO	61	0.3 %
EE	5	0.4 %	SI	16	0.8 %
IE	62	1.4 %	SK	26	0.5 %
EL	76	0.7 %	FI	37	0.7 %
ES	172	0.4 %	SE	65	0.7 %
FR	108	0.2 %	UK	106	0.2 %
IT	166	0.3 %	IS	3	1.0 %
CY	11	1.4 %	NO	20	0.4 %
LV	9	0.4 %	CH	32	0.4 %
LT	17	0.5 %	HR	10	0.2 %
LU	5	0.9 %	MK	14	0.7 %
HU	71	0.7 %	TR	131	0.2 %
MT	7	1.6 %	EU27	1 626	0.3 %
			TOTAL	1 837	0.3 %

Official surveys, such as the EU-LFS, use probability sampling. This makes it possible to quantify sampling errors that can be expressed in terms of confidence intervals. The table below provides the estimates and 95 % confidence intervals reached for the four main indicators on aggregated EU-27 level. For example, the interval 215.5 – 216.5 covers the true value of employed persons with a 95 % probability.

95 % confidence interval of the main LFS indicators for the EU27 (2010)

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[9] Defined as the ratio of the sample size (the number of sampling units in the sample) and the population size (the total number of sampling units in the target population).

| Number of employed (million)	Number of unemployed (million)	Rate of unemployment (%)	Average number of hours worked (hrs)
216 ± 0.5	22.9 ± 0.2	9.6 ± 0.1	37.3 ± 0.1

These intervals correspond to the precision requirements set in Council Regulation (EC) No 577/98.

As regards non-sampling errors, Eurostat and participating countries regularly monitor relevant sources of non-sampling errors (non-response, proxy interviewing). Participating countries report the main causes of errors to Eurostat on an annual basis, along with the methods applied nationally to reduce them. A summary is published in the annual quality report of the EU-LFS[10].

3.2. Timeliness and punctuality

The *timeliness of statistics* is defined as the time gap between the reference period and the availability of data for users. For the EU-LFS, this time span depends on the time Member States need to conduct and process the survey, then to send the results to Eurostat, and for Eurostat to process, validate and publish the results.

Council Regulation (EC) No 577/98 states that Member States have to deliver data to Eurostat within 12 weeks of the end of a reference quarter. Eurostat validates the national datasets as soon as they are received. The chart below shows the time span between the end of the reference quarter and the availability of data for Eurostat's users for the period 2008-2010, compared to the last year covered by the previous report (2007).

Dissemination of LFS data by Eurostat
Timeliness in 2007-2010

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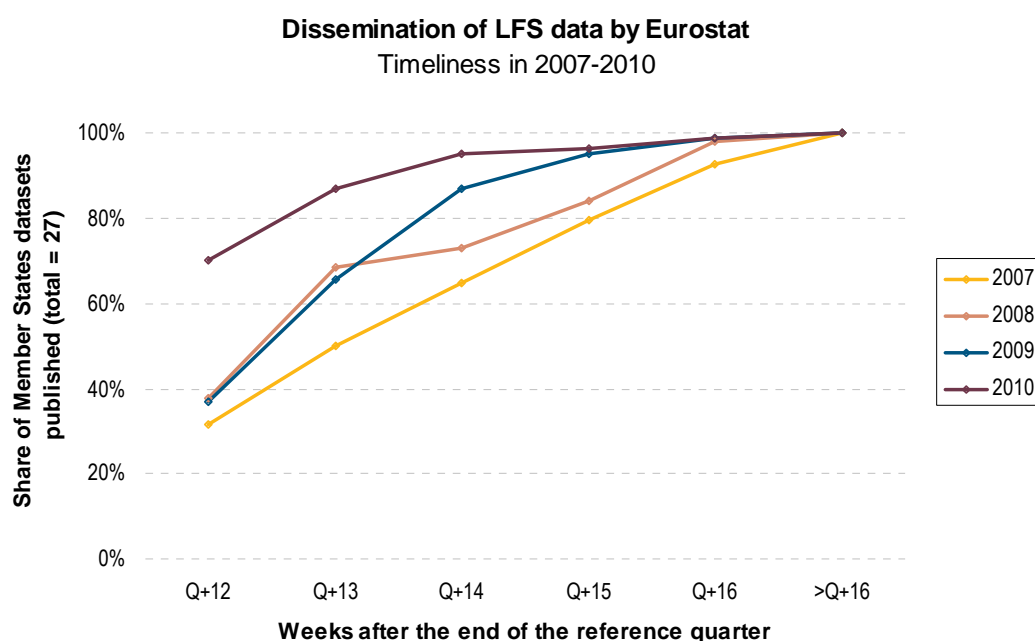
10   http://epp.eurostat.ec.europa.eu/portal/page/portal/product_details/publication?p_product_code=KS-RA-12-021.

This shows that timeliness of LFS data has improved consistently over the period examined. In 2007, Eurostat published 90 % of Member State datasets 16 weeks after the end of the reference quarter. By 2010, this ratio was reached two weeks earlier. Building on this improvement, Eurostat is now able to announce the dates of publication of its main quarterly indicators for Member States and the EU aggregates. Because there is a target publication date, Eurostat can measure the *punctuality of statistics,* defined as the time lag between the release date announced and the actual release date. Eurostat has consistently met its publication date deadlines since the LFS release calendar was introduced.

The timeliness of LFS data is also a key point for estimating monthly unemployment rates. As soon as national data are processed by Eurostat, they are used in the compilation of the next monthly unemployment rate calculation. The monthly unemployment rate is published approximately 31 days after the end of the month.

3.3. Accessibility and clarity

Eurostat disseminates EU-LFS statistics in several ways. The main tool is Eurostat's online database, offering more than 350 tables of detailed EU-LFS data. Headline Europe 2020 indicators are also published in a specific section of the website[11]. These tables cover only the most important LFS results. Eurostat produces other combinations of EU-LFS variables as tailor-made tabulations on demand.

LFS microdata are also highly relevant for scientific purposes. More and more researchers from universities, research institutes and national statistical institutes across Europe and beyond request LFS microdata. Eurostat has been providing this microdata free of charge since 2011. Access is granted in accordance with the terms set out in Commission Regulation (EC) No 831/2002[12] to ensure the protection of survey respondents' personal data. The datafiles, consisting of individual records, are 'anonymised' to prevent unlawful disclosure of personal data.

Detailed documentation (metadata) is provided to users through various dissemination channels. General information is disseminated for the public at large on the LFS section of the Eurostat website[13]. Specific information on the content and quality of statistics is described in the metadata attached to each table in the database. Finally, more advanced methodological documentation is provided in specialised publications (e.g. the annual quality report, and a publication on the characteristics of national surveys, etc.).

3.4. Comparability

The EU-LFS draws on a high degree of harmonisation of concepts, definitions, classifications and methodologies. Regulation (EC) No 377/2008 defines a common coding scheme, ensuring that all participating countries use the same variable definitions. Common classifications are used (e.g. NACE for economic activity, ISCO for occupations) and whenever these classifications are revised, Eurostat ensures that all countries taking part coordinate implementation. In addition, common explanatory notes provide detailed guidelines on the purpose, coding and implementation by national statistical institutes. Methodological issues are discussed in a dedicated working group, the Working Group on

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[11] http://epp.eurostat.ec.europa.eu/portal/page/portal/europe_2020_indicators/headline_indicators.
[12] OJ L 133, 18.5.2002, p. 7.
[13] http://epp.eurostat.ec.europa.eu/portal/page/portal/employment_unemployment_lfs/introduction.

Labour Market Statistics, which fosters the exchange of experience and common practices among all participating countries.

To ensure that the measurement of unemployment is harmonised across all countries participating, Commission Regulation (EC) No 1897/2000[14] lays down an operational definition of unemployment, as well as principles to be followed for formulating the survey questions on labour status. The definition of unemployment is consistent with International Labour Organisation (ILO) standards, which were adopted by the 13th and 14th International Conferences of Labour Statisticians. This ensures that EU-LFS statistics are comparable to those from other countries, especially those of other OECD members.

Countries regularly improve the LFS, either in its methodology or processes. If such improvements lead to breaks in LFS data, the national statistical institute involved informs Eurostat. Significant breaks are documented and labelled in Eurostat publications. Eurostat publishes a special dataset called 'LFS main indicators', in which past series are adjusted for possible breaks and occasional data gaps are filled.

3.5. Coherence

Coherence between population estimates based on EU-LFS and from demographic statistics is an important aspect of overall quality. Being a sample survey, the EU-LFS's results are calculated from the responses of a sub-set of the population. The responses are then benchmarked against the entire population. The data for population are based on the best estimates available at the time (broken down by sex and age groups to improve the accuracy of the procedure). In principle, this benchmarking procedure ensures coherence between EU-LFS and demographic statistics. Differences may, however, occur under exceptional circumstances. For instance, every 10 years, new population census results become available. If a new census yields figures that differ from previous population estimates, a past series may have to be revised. If so, the revision policy for demographic statistics and EU-LFS may differ as regards length and timing, constrained by the availability of detailed information on the population for the 10 years between censuses.

As regards coherence of unemployment estimates, many countries also publish statistics on the number of persons registered at the public employment office and looking for work. The LFS unemployment figures and the number of registered job seekers differ because of the different nature of the data collected. While the EU-LFS draws on a harmonised methodology to survey households as regards their employment activities and availability for work, the public employment offices' administrative records comprise an exhaustive list of individuals registered and eligible for unemployment benefits. As the criterion to be registered depends on national social policies, statistics on registered job seekers are not comparable across countries nor over time.

Another area in which statistical coherence is important concerns the estimation of employment, which can be provided both from LFS and from national accounts. Estimates are not necessarily the same. This is due to differences in methodologies (the concepts and coverage of the population are not identical), but also to different compilation processes.

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[14]   OJ L 228, 8.9.2000, p. 18.

National accounts are compiled by comparing and combining all relevant data sources available in a country, taking the best from each source so as to obtain a comprehensive result. They also seek coherence between employment and production (GDP).

The LFS is one data source in that process, as well as business surveys, employment registers or social security registers. The consistency between LFS and national accounts has been addressed by the Labour Market Statistics Working Group. Eurostat monitors the differences between the two estimates, and several national statistical institutes have analysed the causes and the size of the differences. In some cases, they have published reconciliation tables between the two datasets.

All in all, national accounts are judged to be more suitable for measuring employment levels, employment growth and industry breakdowns.

LFS is more suitable for measuring participation in the labour market (i.e. employment and unemployment rates, activity rates, etc.), or for analysing the situation of specific socio-economic groups in the population (e.g. by age, gender or educational level).

4. INITIATIVES TO FURTHER IMPROVE THE LABOUR FORCE SURVEY

4.1. Task Force on the quality of the LFS and follow-up actions

In 2007, Eurostat and the Member States launched a quality review of the EU-LFS. A Task Force was set up to identify possible weaknesses, and to recommend appropriate actions for all dimensions of the quality framework for ESS statistical output. In its final report (2009)[15], the Task Force formulated over 40 recommendations for improving the design, organisation and conduct of the survey. The recommendations vary in terms of complexity, scope, resource implications and the time needed for implementation. Participating countries assessed themselves against the recommendations, and in 2010, each defined a national action plan to implement the recommendations. Progress on this is assessed regularly by the Labour Market Statistics Working Group.

4.2. Developing new statistical products

One way to extend the use of LFS results is to improve the use of the microdata available, for instance, by providing users with new indicators. For example, there are now new indicators to supplement the unemployment rate.

Unemployment, as defined by the ILO, requires three conditions to be fulfilled simultaneously:

not having worked even for one hour in the reference week;
active job search;
availability for work.

Many people only partially meet these requirements, so they are not considered as unemployed in the unemployment statistics. To provide indicators on these specific groups, and hence a richer picture of unmet labour demand, Eurostat and the national statistical institutes of the Member States have developed definitions of three new indicators. One

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[15]   *Task Force on the quality of the Labour Force Survey — Final report*, Eurostat 2009.

indicator concerns underemployment and the other two look at specific situations of joblessness with some attachment to the labour market. Data on these groups were first published in 2011.

Another example is the new indicator on young people who are neither in employment nor in education/training (NEET). This is relevant for monitoring young adults at risk of being left behind by society. It combines information about education and about the labour market, both derived from EU-LFS data.

Another request that users made concerns statistics on labour market dynamics. This is information about transitions between labour statuses, for instance, on how many people became unemployed or found a job over a specified period. This makes it possible to identify groups that have a better chance of finding a job, or vulnerable groups more at risk of remaining unemployed.

Meeting this data need with the EU-LFS is not straightforward, as the survey was originally designed to gather stock information (e.g. number of unemployed persons at a given point in time), rather than capturing flows. Flow estimates are, however, possible, though they are not as accurate as stock estimates and need to meet certain conditions. In most participating countries, the LFS is designed as a rotational panel, that is, where the same person is interviewed several times in consecutive quarters. This design enables the LFS to derive indicators on labour market transitions. Some countries regularly publish this kind of data already, using this panel aspect of the LFS.

Action is needed to enable the same to be done at EU level. First, participating countries that do not have a rotational panel need to design a system on these lines. Second, the rotational patterns differ between countries, and more harmonisation is preferable. Finally, some remaining methodological challenges need to be overcome, such as the consistency needed between stock-data and flows. In collaboration with Member States, Eurostat is working on the prerequisites needed for the EU-LFS to produce labour dynamics statistics in the future.

4.3.   The LFS in a modernised system of social statistics

Building on the Commission's 'Communication on the production method of EU statistics: a vision for the next decade'[16], an initiative to modernise European social statistics has been launched. In the 2011 Wiesbaden Memorandum[17], a strategy was set out to make this concrete. It was agreed that, while maintaining high quality standards, efficiency gains in the production of social statistics were essential; and that to achieve these, joint progress towards a common architecture for European social statistics was necessary. The main aims of the strategy are to:

improve the sampling frames;
streamline social surveys;
make more use of new and existing data sources, particularly administrative sources.

Modernising the organisation of social statistics will also have an impact on the Labour Force Survey.

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[16]   COM(2009) 404 of 10 August 2009.
[17]   http://epp.eurostat.ec.europa.eu/portal/page/portal/pgp_ess/0_DOCS/de/DGINS2011_memorandum.pdf

Making more use of new technologies will also be important in this strategy. In the case of social statistics, using the internet to collect data appears to be a promising way to improve the efficiency of data collection and to maintain the good will of respondents. Several countries are carrying out projects in this area. To stimulate international collaboration and develop common tools, a joint ESS project[18] was launched in 2012. The LFS will be the pilot survey for this project.

Finally, Eurostat is currently evaluating LFS ad hoc modules. Each year, an ad hoc module on varying topics is included in the LFS. The process of compiling it could be made more efficient and the quality of the results improved. One possible approach would be to introduce a system of repeating modules, selected from a shortlist of modules, with the possibility to also respond to emerging policy needs. This would enable better monitoring of topics on a multi-annual basis.

5. CONCLUSION

Eurostat monitors compliance with the legal basis. The Commission considers the implementation of Regulation (EC) No 577/98 to be satisfactory. Member States are fully or almost fully complying with the Regulation. Open issues are discussed with Member States, and, if necessary, action plans are jointly defined. The overall quality of the EU-LFS is good.

The European Statistical System is making efforts to introduce ongoing improvements in EU-LFS processes and methods, and has kept up the momentum despite a difficult environment, with scarce resources and deep budget cuts. A review of EU-LFS methodology is under way to adapt to changes in user needs and to new challenges (e.g. improved timeliness requirements, estimates on labour market transitions).This work will be part of the overall modernisation of social statistics.

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[18] '*Data collection for social surveys using multiple modes*'.