



EUROPEAN COMMISSION
EUROSTAT

Joint Standard Quality Report for Labour Force Survey and Regional Labour Market Statistics

General information

This Quality Report is a combined effort of the units F2-Labour market statistics and D2-Regional indicators and geographical information to describe the quality of data collected by these units.

The aim of the quality reports is to establish the current level of knowledge in Eurostat about the quality of the statistical products. The results from the reports will be used for internal summaries of what is known about the quality and where there is lack of quality.

All available information that describes the quality of the product should be reported. If the information is extensive, references should be given for information more detailed. For lack of information on some quality aspects no complementary data has to be collected from the Member States.

The reports should be updated continuously and transmitted to the quality manager once a year.

The structure of the form is according to the quality concept for Eurostat.

Administrative information

Country	LUXEMBOURG
Statistical product (name)	Labour Force Survey and NUTS-3 level estimates of the labour force and the number of unemployed
Reference period	2008
Periodicity of the LFS statistics (monthly, quarterly, annual)	Quarterly
Periodicity of the NUTS-3 statistics	NA
Persons who have filled the present report	Liliane Reichmann

Complete the abbreviations used in the report

Abbreviation	Explanation
CV	Coefficient of variation (or relative standard error)
Y/N	Yes / No
H/P	Households/Persons
M?	Member State doesn't know
NA	Not applicable/ Not relevant
UNA	Information unavailable
NR or blank	No response: Member State doesn't answer to Eurostat request for information
LFS	Labour Force Survey
NUTS	Nomenclature of territorial units for statistics or corresponding statistical regions in the EFTA and candidates countries
NC	No change from last report.

NB: if the information is not available or is not applicable/not relevant use the corresponding abbreviations. Blank fields will be considered as non-response.

The design and methods used for the LFS

Coverage	The sampling frame covers only private households in Luxembourg. The cross-border workers are not taken into account. The resident population comprises persons registered as residing in one of the communes.
Inclusion/exclusion criteria for members of the household	The household is defined as persons living in the same household, other than subtenants and military personnel returning home at the weekend.
Questions relating to employment status are put to all persons aged ...	The demographic part of the questionnaire is submitted to all the household members. But only the 15+ years old should be interviewed for the rest of questionnaire.
Reference week	The sample is divided into 52 reference weeks. Once a year, each selected household should be interviewed within 3 weeks from the reference week.
Periodicity of the results	The results are yearly. All the data continuously collected during 52 weeks are aggregated.

Sampling design	Single stage stratified random sample
Base used for the sample (sampling frame)	The central population register (RGPP) is used to draw the sample
Last update of the sampling frame	January 1 st every year
Primary sampling unit (PSU)	The sampling unit are the households. All the individuals included in the aforementioned households are considered as targets of the survey.
Final sampling unit (FSU)	-
First (and intermediate) stage sampling method	A yearly sample is drawn and spread over 52 weeks. The households are randomly chosen by proportional allocation in each stratum, with the exception of underpopulated strata, but with the constraint that its yearly minimum size be at least 48 households.
Final stage sampling method	-
Overall yearly sampling rate	The yearly sampling rate is 14%.
Size of the yearly sample	The sample size is 25,558 households.
Stratification	The strata result from the crossing of the canton and the household size class. There are 13 cantons in Luxembourg. The household size is divided into 4 classes: 1, 2, 3, 4+. So, the product of the number of cantons (13) and the number of size classes (4) gives 52 strata.
Description of the rotation scheme	A rotation scheme is carried out. The amount of 6400 households, which belonged to the previous sample, are incorporated in the sample of 2007

Brief description of the method of calculating the weights	Post-stratification at one level was performed by sex, age-group and nationality
Is the sample population in private household expanded to the total population (including those in collective households)? (Y/N)	N
Gender is used in weighting (Y/N)	Y
Which age groups are used in the weighting (e.g., 0-14, 15-19, ..., 70-74, 75+)?	The following age classes are used: 0-14, 15-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-59, 60-64, 65+
Which regional breakdown is used in the weighting (e.g. NUTS 3)?	NA
Other weighting dimensions	NA

Data collection methods, brief description	All the interviews are performed by phone. One interview (covering the core variables as well as the ad hoc module variables) lasts in average 10 to 15 minutes per interviewed person.
Participation is voluntary/compulsory?	Voluntary

Publication thresholds, annual estimates

Limit, below which figures cannot be published	500
Limit, below which figures must be published with warning	1200

Use of subsamples to survey structural variables (wave approach)

Only for countries using a subsample for yearly variables

Wave(s) for the subsample	NA
Are the 30 totals for ILO labour status (employment, unemployment and inactivity) by sex (males and females) and age groups (15-24, 25-34, 35-44, 45-54, 55+) between the annual average of quarterly estimates and the yearly estimates from the subsample all consistent? (Ref.: Commission Reg. 430/2005, Annex I) (Y/N)	NA
If not please list deviations	NA

List of yearly variables for which the wave approach is used (Ref.: Commission Reg. 430/2005, Annex II)	NA
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Publication thresholds, annual estimates (wave approach) if different from full sample thresholds

Limit, below which figures cannot be published	NA
Limit, below which figures must be published with warning	NA

Brief description of the method used to produce data on

Regional level of an individual record (person) in the national data set	NA
Lowest regional level of the results published by NSI	NA
Lowest regional level of the results delivered to researchers by NSI	NA
Brief description of the method which is used to produce NUTS-3 unemployment and labour force data sent to Eurostat?	NA

Table 1.1a Item non-response - Quarterly data*Compared to the variables defined by the Commission Regulation (EC) No 430/2005*

Variable status	Column	Identifier	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Short comments on reasons for non-available statistics and prospects for future solutions
compulsory	Col_079	STAPRO2J	C	16.3	16.0	.	2nd job not so typical
	Col_107 - Employed	METHODE	.	C	.	.	due to the small size of sample
	Col_109 - Not employed	METHODG	.	.	.	C	and because these methods
	Col_110 - Employed	METHODH	C	.	C	C	are not so typical (often used)
	Col_110 - Not employed	METHODH	.	.	C	C	in Luxembourg
	Col_113 - Employed	METHODK	.	.	C	.	
	Col_114 - Not employed	METHODL	.	.	.	C	
	Col_201	INTWAVE	C	C	C	C	Only 1 wave in 2008

Table 1.1b Item non-response - Annual data

Compared to the variables defined by the Commission Regulation (EC) No 430/2005

<i>Variable status</i>	<i>Column</i>	<i>Identifier</i>	<i>2008</i>	<i>Short comments on reasons for non-available statistics and prospects for future solutions</i>

Table 1.2.1 Relevance of the main LFS statistics at national level

	For policy makers (a)		For social actors (b)		For the media (c)		For researchers and students (d)		For enterprises (e)		Comments
	high	low	high	low	high	low	high	low	high	low	
Total Employment (levels)		x		x		x	x			x	As more than 40% of the employment is occupied by cross border
Total Employment rate		x		x		x	x			x	workers, registered data from the social security are used, as
Part-time employment		x		x		x	x			x	cross border workers are not included in the LFS
Temporary employment		x		x		x	x			x	
Employment by socio-demographic breakdown (age, sex, education)	x		x		x				x		educational level is not included in the registered data
Employment by territorial (NUTS 2 or NUTS 3) breakdown	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Employment by economic activity (NACE) breakdown		x		x		x	x			x	
Hours actually worked		x		x		x	x			x	
Total Unemployment (levels)		x		x		x	x			x	For unemployment registered data from the Public Employment
Total Unemployment rate		x		x		x	x			x	Service is normally used
Long-term unemployment		x		x		x	x			x	
Youth unemployment		x		x		x	x			x	
Unemployment by socio-demographic breakdown (age, sex, education)		x		x		x	x			x	
Unemployment by territorial (NUTS 2 or NUTS 3) breakdown	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

(a) i.e. if the statistic is used as policy target or if it is used in official studies **influencing policy making**

(b) i.e. if the statistic is used by employers associations, trade unions, lobbies, at national or regional level, for their **decision making**

(c) i.e. if the statistic **is mentioned** in national or regional media, specialised or for general public

(d) i.e. if the statistic is used by academics **for scientific research** (e.g. appears in scientific publications) or by students

(e) i.e. if the statistic is used by enterprises **for own market research activities or for consultancy services** in the information sector

[illegible]

Table 2.2.1 Frame quality, coverage rates and methodological notes

Give quantitative information (the rates of undercoverage, overcoverage and classification errors of the statistical units) and brief comments on the main problems affecting frame quality

	Rates	Description of overcoverage, undercoverage and classification errors <i>and their impact on estimates</i>
Under-coverage	UNA	Some households of the sampling frame RGPP were out of scope. They were deleted both from the sample and the sampling frame.
Over-coverage	UNA	
Classification errors	UNA	
Reference on frame errors	UNA	

Table 2.2.2.a Errors due to the reporting units and the interviewers

Give brief comments on the assessment of errors due to:	Reporting unit	UNA
	Interviewers	UNA

Table 2.2.2.b Errors due to the medium (questionnaire)

Date of the last update of the questionnaire	yearly update
Date of the last pilot survey in order to test the questionnaire	UNA
Number of respondents to the pilot survey	UNA
Report from cognitive laboratory available (Y/N)	N

Table 2.2.2.c Are there any methodological notes on the measurement errors?

Main references	UNA
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Table 2.2.2.d Main methods of reducing measurement errors

Error source	Brief comments
Respondent	As citizenship of the contacted reference person is usually known, the interviewers were chosen according to their language skills when possible
Interviewer	A specific training course is given to the interviewers (purpose and methodology of the survey, codification and classification to use, sensitive questions, etc.). Interview calls are monitored and controlled to allow continued improvement.
Questionnaire	Every year, the questionnaire is revised. Modifications are made if necessary. Interviews are carried out by CATI, which allows interactive checking of the answers.
Other	Plausibility and consistency checks are made at the end of the survey. Corrections, if needed, are made before releasing the data.

Table 2.2.2.e Number of interviewers per quarter

	Face to face	Telephone
Average number of interviewers per quarter (full time equivalent)	NA	5

Table 2.2.3a Information available about data capture errors and the error rates

Table 2.2.3a is only for countries not using Computer assisted data collection.

<i>Info. on data capture errors (Y/N/NA)</i>	<i>Error rate in %</i>	<i>Comments</i>
NA		

Table 2.2.3b Information available about codification errors and the error rates

<i>Info. on data codification errors (Y/N)</i>	<i>Error rate in %</i>	<i>Comments</i>
Y	Minimal	Codification is checked by frequency distributions of classifications. This is part of standard data control procedures. Corrections, if needed, are made before data release.

Table 2.2.3c Information available about editing errors and the error rates

<i>Info. on errors during the editing phase (Y/N)</i>	<i>Error rate in %</i>	<i>Comments</i>
Y	Minimal	Editing checks are incorporated as interactive part in CATI. Corrections, if needed, are made before data release

Table 2.2.3d Information available about other processing errors and the error rates

<i>Info. on other process errors (Y/N)</i>	<i>Error rate in %</i>	<i>Comments</i>
Y	0%	Corrections, if needed, are made before data release

Table 2.2.4.a Calculation of non-response. Annual average

Is the non-response rate weighted? (Y/N)	N	If weighted, state the definition of the weights	
Is the non-response on household level or person level? (H/S)	H		

Table 2.2.4.b Rates of non response by survey wave. Annual average

Wave	1	2	3	4	5	6	7	8
Non response rate in %	68.0							

Table 2.2.4.c Rates of non response by survey mode. Annual average

Survey mode	CAPI	CATI	PAPI	CAWI	POSTAL
Non response rate in %		63.0			

Table 2.2.4.d Divisions of non-response into categories. Quarterly data and annual average

Quarter	Non-response rate (%)	Refusals (%)	Non-contacts (%)	Other reasons (%)
1	UNA	UNA	UNA	UNA
2	UNA	UNA	UNA	UNA
3	UNA	UNA	UNA	UNA
4	UNA	UNA	UNA	UNA
Annual (average 2008)	68	15	17	36

Table 2.2.4.e Rates of non response. Annual average

PLEASE DO NOT ADD OR DELETE ROWS

[illegible]

Table 2.2.4.f Availability and calculation of non-response at NUTS-3 level

Only to be completed by countries using the LFS to produce NUTS-3 level data for Eurostat

Is non response rate available? (Y/N)			
Is the non response rate weighted? (Y/N)		If weighted, state the definition of the weights	

Table 2.2.4.g Rates of non response. Annual average

Only to be completed by countries using the LFS to produce NUTS-3 level data for Eurostat

PLEASE DO NOT ADD OR DELETE ROWS

[illegible]

Table 2.2.4.h Patterns of non response. Underestimation and overestimation bias of main characteristics

	Underestimation assessment		Overestimation assessment	
	Quantitative	Descriptive	Quantitative	Descriptive
Total employment	NA		NA	
Part-time employment	NA		NA	
Unemployment	NA		NA	
Numbers of hours actually worked	NA		NA	
Other characteristic	NA		NA	
Other characteristic	NA		NA	

Table 2.2.4.i Methods used for adjustments for statistical unit non-response

Adjustment via weights (Y/N?)	N	Variables used for non-response adjustment		Description of method	
Substitution of non-responding units (Y/N?)	N	Substitution rate		Criteria for substitution	
Other methods (Y/N?)	N	Description of method			

Table 2.2.4.j Methods used for imputation of statistical item non-response

Add rows as necessary.

Characteristic	Imputation rate	Describe method used, mentioning which auxiliary information or stratification is used
NA		

Table 2.2.4.k References to methodological notes on non response rates and their treatment

NA

2.3.1 Assessment of errors (bias) in the registration of unemployment

Only for those countries using registered unemployment to produce NUTS-3 level data on unemployment or labour force.

NA

Quarterly LFS data

Table 3.1.a Reference period, transmission date and coverage

Quarter	Main dates in the national production process		
	Date of data collection beginning	Date of end of the quality check for statistics requested by Eurostat	Date of national publication
1	4th week in January	middle of June	NA
2	4th week in April	first week of September	results will be published in a national publication in september/october
3	4th week in July	middle of December	
4	4th week in Octobre	first week of March	

Table 3.1.b Delay of delivery to Eurostat of the full dataset or of the main characteristics and reasons for late delivery

Datasets used for data dissemination are considered, which may not correspond to the first transmission. Late deliveries in blue font. Please provide reason.

Quarter	Full dataset			Single characteristic(s)		
	Deadline	Delivery date	Reason for late delivery	Characteristic(s)	Delay (days)	Reason for late delivery
1	22/06/2008	20/06/2008	NA			
2	21/09/2008	09/09/2008	NA			
3	21/12/2008	24/12/2008	internal days off			
4	22/03/2009	13/03/2009	NA			

Table 3.1.c Ways for improving timeliness

Refer to previous table 3.1b

Quarter	Describe ways for improving timeliness
1	
2	
3	
4	

NUTS-3 level LFS data on unemployment and labour force

Table 3.2.a Reference period, transmission date and coverage

<i>Main dates in the national production process</i>		
<i>Date of data collection beginning</i>	<i>Date of end of the quality check for statistics requested by Eurostat</i>	<i>Date of national publication</i>
NA		

Table 3.2.b Reason for late delivery to Eurostat

To be completed only in case of late delivery of NUTS-3 level data on unemployment and labour force.

<i>Describe reasons for late delivery mentioning all bottle-necks</i>
NA

Table 3.2.c Ways for improving timeliness

To be completed only in case of late delivery of NUTS-3 level data on unemployment and labour force.

<i>Describe ways for improving timeliness</i>
NA

4.1 A list of type and frequency of publications

Main results (activity and employment rate by age classes, gender and citizenship) of annual LFS data with comments are published by STATEC in:

1. Note de conjoncture : La situation économique au Luxembourg - Évolution récente et perspectives (annual publication)
2. Bulletin du STATEC (studies of general interest).

4.2 Conditions of access to data

Means, support, marketing conditions, possible restrictions, existing service-level agreement, etc.

Tables are provided to users. Restricted access to anonymised micro-data is given to researchers under secured conditions within Statec.

4.3 Accompanying information to data

Documentation, explanation, quality limitations, graphics etc.

Documentation and methodological explanations are provided to the users via a number of media: paper, files, email and by phone.

4.4 Further assistance available to users

See 4.3

4.5 Possible improvements, compared to the previous situation.

UNA

Table 5.1.a Change in 2008 at the concept level that would affect comparability with a previous reference time?

Enumerate all changes at concept level introduced in 2008. Add rows if needed

Changes in	Description of the impact of the changes on the statistics.	Estimation of effect for aggregates (%)	Estimation of adjustment F/P for aggregate	Are statistics revised backwards (Y/N)	If statistics are revised, give brief comment on the method of revision
concepts and definition	NA				
coverage (i.e. target population)	NA				
legislation	NA				
classifications	NA				
geographical boundaries	NA				
other concept	NA				

Table 5.1.b Change in 2008 at the measurement level that would affect comparability with a previous reference time?

For example changes in data collection, weighting scheme, new design, use of auxiliary information

Enumerate all changes at measurement level that have been introduced in 2008. Add rows if needed

Changes to	Description of the impact of the changes on the statistics.	Estimation of effect for aggregates (%)	Estimation of adjustment F/P for aggregate	Are statistics revised backwards (Y/N)	If statistics are revised, give brief comment on the method of revision
sampling frame	NA				
sample design	NA				
rotation pattern	NA				
questionnaire	NA				
instruction to interviewers	NA				
survey mode	NA				
weighting scheme	NA				
use of auxiliary information	NA				
other	NA				

Table 5.2 Divergence of national concepts from European concepts

(European concept or National proxy concept used) List all concepts where any divergences can be found

Add rows as necessary.

Is there a divergence between the national and European concepts for the following characteristics?	(Y/N)	Give a description of difference and provide an assessment of the impact of the divergence on the statistics
Definition of resident population (*)	N	
Identification of the main job (*)	N	
Employment	N	
Unemployment	N	

(*) See [LABOUR FORCE SURVEY - REVISED EXPLANATORY NOTES \(TO BE APPLIED FROM 2008Q1 ONWARDS\)](#)

Table 5.3.a Improvements in 2008 that have been made on the questionnaire so that it complies with the Twelve Principles.

Add rows as necessary.

Principle	Description of improvement
N	

Table 5.3.b Improvements in 2008 that have been made on the questionnaire so that it accurately transcodes to the EU list of variables

Add rows as necessary.

Variable	Description of improvement
N	

Table 5.3.c Improvements in 2008 that have been made so that the transmitted data comply with the EU definition of unemployment.

Add rows as necessary.

Concept	Description of improvement
N	

Table 6.1 Coherence of LFS data with National Accounts data

	<i>Description of difference in concept</i>	<i>Description of difference in measurement</i>	<i>Give an assessment of the effects of the differences</i>	<i>Give references to description of differences</i>
<i>Total employment</i>	Although employment in LFS and National Accounts (NA) are both in line with the ILO guidelines (XIII. ICLS, Geneva 1982), the following conceptual differences are relevant: - 1. Residence (LFS) vs. domestic Concept (NA). Many non-resident workers are coming to Luxembourg from bordering countries. - 2. Inclusion (NA) / Exclusion (LFS) of the institutional population.	LFS is a sample survey (primary statistics), sampling errors occur. Employment in NA is based on all statistical information available (secondary statistics); additional estimates are made for under-coverage of employment in basic sources (e.g. for hidden economy). Estimation errors may occur.	1. Non resident employees represent about 40% of total employees (domestic concept) 2. Census 2001 registered 7500 persons living in non-private households	Indicateur rapide série L (emploi salarié) Note de conjoncture Bulletin du STATEC N°5-2008 Le chômage au Luxembourg: Une approche intégrée*
<i>Total employment by NACE</i>				
<i>Number of hours worked</i>	UNA	UNA	UNA	UNA

Table 6.2 Coherence of LFS data with Business statistics data

	<i>Description of difference in concept</i>	<i>Description of difference in measurement</i>	<i>Give an assessment of the effects of the differences</i>	<i>Give references to description of differences</i>
<i>Total employment</i>	STATEC produces a range of different business statistics. There are various differences in concepts and measurement when compared with the LFS (periodicity, sample survey or total enumeration, coverage of employment and sectors of economy, inclusion/exclusion of small enterprises, etc.).		UNA	Note de conjoncture
<i>Total employment by NACE</i>			UNA	Bulletin du STATEC N° 5-2008 Le chômage au Luxembourg:
<i>Number of hours worked</i>			UNA	

Table 6.3a Coherence of LFS data with registered unemployment

<i>Description of difference in concept</i>	The registered unemployment is a legal concept that differs from the ILO unemployment definition. In the LFS, the ILO-unemployment concept is used.
<i>Description of difference in measurement</i>	<p>In the LFS the measurement of unemployment is made on the declaration of persons living in private households, institutional households are not covered. Sample error influences LFS-results.</p> <p>Registered unemployed who are not ILO-unemployed:</p> <p>Registered unemployed who do not meet the availability criterion used in the LFS;</p> <p>Registered unemployed working more than 1 hour during the reference week;</p> <p>Registered unemployed who do not actively search for a job.</p> <p>ILO-unemployed who are not registered unemployed (especially young people): not registered unemployed at the public employment offices but using other job search methods;</p> <p>Unemployed 65 years and over.</p>
<i>Give references to description of differences</i>	<p>Note de conjoncture 1/2009: Economie luxembourgeoise en 2008, chap. 6</p> <p>Note de conjoncture 1/2008: Economie luxembourgeoise en 2007, chap. 6</p> <p>Bulletin du STATEC N°5-2008/Le chômage au Luxembourg: Une approche intégrée*</p>

Table 6.3b Assessment of the effect of differences of LFS unemployment and registered unemployment

	<i>Give an assessment of the effects of the differences</i>
<i>Overall effect</i>	<p>Number of unemployed persons: LFS : 10 387</p> <p>Registered (annual average): 9 916</p>
<i>Men under 25 years</i>	registered: 885 / LFS: 1038
<i>Men 25 years and over</i>	registered: 4317 / LFS: 3862
<i>Women under 25 years</i>	registered: 839 / LFS: 1734
<i>Women 25 years and over</i>	registered: 3875 / LFS: 3753
<i>Regional distribution (NUTS-3)</i>	

8.1 Cost

Table 8.1a Number of staff involved in central and regional offices, excluding interviewers

Consider only staff directly employed by the NSI

	Full-time equivalents
Total	3
- of which professional and managerial	1

8.2 Burden

Table 8.2a Duration of the interview

	Minutes		
	Total	First wave	Later waves
Average time spent in the household	15	15	NA
Core questionnaire (pr person)	12	12	NA
Ad hoc questionnaire (pr person)	3	3	NA

Note: This table should only show the burden on the respondents. Not time spent in the field to contact the household or fill out administrative forms.

Table 8.2b Number of units

	Number		
	Total	First wave	Later waves
Households visited over the year	5460	5460	NA
Persons interviewed over the year	14288	14288	NA
Persons interviewed for the ad hoc module over the year	10836	10836	NA