

**Flexicurity: Indicators on the coverage of
certain social protection benefits for
persons in flexible employment in the
European Union**

FINAL REPORT

Alphametrics Ltd.



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FLEXICURITY: INDICATORS ON THE COVERAGE OF CERTAIN SOCIAL PROTECTION BENEFITS FOR PERSONS IN FLEXIBLE EMPLOYMENT IN THE EUROPEAN UNION




FINAL REPORT

1 BACKGROUND

Flexicurity refers to the combination of flexible labour markets and a high level of employment and income security and is seen with the EU as the answer to the dilemma of how to maintain and improve competitiveness whilst preserving the European social model. The overall emphasis is on ensuring continued access to employment opportunities, and the income it provides, by using employment, training and social security systems in a mutually supporting and positive way, as opposed to seeking just to maintain or protect existing jobs.

One aspect to flexicurity is the promotion of flexible forms of working that will let more people participate in the labour market by giving them the possibility to balance work with other commitments. However, most social security systems were established to support the majority of workers in full-time regular employment and unless these are adapted to cater for atypical situations there is a clear risk of promoting flexibility without security. But improving income security for people working in atypical employment is not just a cost issue, there are also potential benefits – in its opinion on the Commission communication “Make work pay”, the Social Protection Committee supported the finding that “providing effective social protection to people who have non-standard labour contracts can itself strengthen the incentive to take up work”.

The European Commission has:

-  Proposed (in June 2007 after extensive consultation) the establishment of Common Principles of Flexicurity, including the principle that *‘modern social protection systems should provide adequate income support during periods of unemployment’*;
-  Recognised that *‘each Member State has a specific labour market situation and culture, and that the European Commission is not aiming for a one-size- fits-all flexicurity recipe’*.
-  Expressed its intention to *‘identify the broader costs and benefits of flexicurity, in particular through the development of appropriate indicators’*.

This policy approach should enable the pursuit of an efficient and productive allocation and redeployment of labour within national and EU labour markets to be combined with policies that ensure, not only adequate income support for those without employment, but also incentives to return to, or remain in, the labour market.

There is concern, however, to maintain a balance between the promotion of labour market flexibility and the maintenance of income security, and to ensure that the brunt

of the adjustment process does not fall disproportionately on those in a weaker position on the labour market – notably those engaged in ‘flexible’ jobs.

2 OBJECTIVES

In 2005 a feasibility study was undertaken to investigate the development of indicators to monitor the social protection coverage of persons in flexible employment, which was defined to include those who are self-employed and employees working part-time or on temporary contracts. The study covered just two social benefits – unemployment and maternity – for the EU-15 countries and resulted in the development of an indicator that applied a detailed assessment of the regulations regarding eligibility to benefits in each country to quantitative data on the numbers employed in different circumstances in order to estimate the overall proportion of flexible workers covered by each type of benefit.

The indicator does not attempt to measure the quality of coverage or the value of replacement income, rather it aims to measure the extent to which persons in flexible employment are (potentially) disadvantaged compared to those in regular employment purely as a result of their employment circumstances – i.e. the proportion of flexible workers who are in some way less well protected than their counterparts in regular employment.

The main aim of the current project was to take the concept forwards - to extend the coverage of the analysis (all EU-27 countries, additional types of benefit), to review the indicator methodology and results and, ultimately, to conclude whether the final indicators are practical and relevant for ongoing monitoring within the context of flexicurity policy.

As identified in the inception report, the main steps in the work were planned as follows:

- i) Literature review
- ii) Collection of data (benefits)
- iii) Collection of data (affected population)
- iv) Review of methodology (indicators)
- v) Calculation of indicators
- vi) Analysis of results
- vii) Final conclusions

3 LITERATURE REVIEW

An internet based literature review of recent work in related areas is included as Annex 1 to this report. Whilst there is plenty of research material looking at social protection coverage in general and the levels of benefits received (e.g. comparison of replacement rates between countries or for different demographic/social groups), it appears that little

attention has so far been paid to the impact of atypical employment circumstances on access to benefits, which is an issue of key interest in the flexicurity debate and the subject of this study.

4 COLLECTION OF QUALITATIVE DATA (BENEFITS)

The study aims to develop indicators that measure the social protection coverage of persons in flexible employment – defined to cover persons who are self-employed, working part-time or on a fixed-term contract – and to identify where this group is disadvantaged compared to persons in regular employment - i.e. working full-time under an open-ended contract.

In order to assess coverage, it is necessary to identify the relevant benefits that exist in each country and then, for each benefit, evaluate the criteria that define eligibility to benefits and how these may impact on persons in the various forms of flexible employment compared to those in regular employment. There are many ways in which flexible workers can be disadvantaged compared to regular employees, some are obvious, others are more subtle, and the extent to which these impact on individual workers also goes through the full spectrum from no coverage to negligible differences.

Sometimes benefit regulations mean that flexible workers receive lower value benefits than regular workers but if, for example, these are based on a proportionate reduction of benefits in relation to hours worked and result in equal rates of income replacement then this cannot be construed as a disadvantage. On the other hand, if the duration of benefit payments is also reduced then this would seem to be unfair because the cumulated value of benefits received is doubly affected by part-time status.

Some examples of the types of issue that have to be considered:

- Flexible workers not covered:
 - o Self employed not eligible for unemployment benefits
 - o Part-time employees working less than a certain number of hours per week not liable to pay social contributions and therefore not insured against main risks
 - o Temporary workers on contracts below a certain duration not eligible for selected benefits

- Flexible workers encounter some disadvantage:
 - o Self-employed only eligible for a fixed rate benefit whilst regular employees get wage-related benefits
 - o Maximum duration of benefit payments shorter for self-employed or part-time workers
 - o Self-employed subject to a waiting period whilst regular employees are immediately eligible for benefits
 - o Part-time employees working less than a certain number of hours per week have reduced entitlement to benefits

- Flexible workers might be disadvantaged:
 - o Insurance for self-employed is voluntary
- Flexible workers treated equally:
 - o Amount of benefits paid linked to wages and/or hours worked

As noted in the final report for the feasibility study (VC-2003-0228), the quality of indicators of coverage is highly dependent on the detailed information regarding eligibility criteria and how these impact on the different forms for flexible employment. The collection of information for this study (reference year 2007) was therefore undertaken as a two-step process.

- Firstly, the Alphametrics team exploited the MISSOC database and other readily available internet based sources of information to identify all relevant benefits in each country and to complete as much information as possible on the eligibility criteria, factors influencing the level of benefits paid and the possible impact on persons in each type of flexible employment.

For the EU-15 countries covered by the feasibility study the existing information relating to unemployment benefits and maternity benefits in 2004 was copied to 2007 and then updated as relevant to reflect changes in the legislation, new/ended benefits, additional information, etc. For the 12 remaining countries and the benefit types not previously covered (sickness and paternity) the data collection process started from scratch since there was no existing material to work from.

In most countries, there is more than one type of scheme, each with separate regulations, for some types of benefit – for example unemployment insurance for those that fulfil the insurance criteria and unemployment assistance as a fall-back for those that either do not fulfil the qualification criteria or who have exhausted their rights to that benefit. One of the ways that some groups of flexible workers are disadvantaged are that they are excluded from the first-choice scheme and obliged to receive benefits from the fall-back scheme and often these are means-tested so that some individuals within this group will receive no benefits at all. Within this study, these different scheme-types are known as the “*Primary*”, “*Secondary*” and “*Alternative primary (for self employed)*”. Information on the regulations governing all three types of scheme has to be collected and compiled as separate records.

All data were entered into the Access database developed during the feasibility study (see input form in Fig.1), though this was further developed within the scope of the current study – e.g. to add support for different years, improved navigation of input form, automated procedures to export questionnaires in Excel format and to import updated data from Excel back into Access.

- Secondly, the pre-completed questionnaires were circulated by DG-Employment to the networks of the indicator sub-groups from the Employment Committee and Social Protection Committee for validation and completion by national experts.

Questionnaires were issued in Excel format (Fig.2) together with clear guidelines explaining the background to the work and exactly what information was needed.

Completed questionnaires were returned to Alphametrics. All answers were then reviewed, edited and updated where necessary and loaded into the main Access database.

Annex 2 includes the guidelines and the final Access database, with information for all countries, benefit types, and scheme types. Completed questionnaires in Excel format can be generated from the database at any time using the form “ExportExcel”

Figure 1 – Benefit information form (Access database)

Social protection benefits for persons in flexible employment

Country: Belgique/België | Benefit Type: Unemployment benefi | Scheme type: Primary | Year: 2007

Scheme name: Unemployment insurance

Compulsory: | Coverage: All employees, plus young people after training

Eligibility criteria:
 For employees, the qualifying period varies according to the age of the insured person between 312 working days during the previous 18 months, and 624 working days over the previous 36 months:
 <36 -> 312 days of contributory employment in the previous 18 months
 36-49 -> 468 days in 27 months
 50+ -> 624 days in 36 months
 Part-time workers must do at least 12 hours per week to qualify (or 1/3 of normal full-time hours in the job). Eligibility then follows the same criteria as for full-time workers except that the units are now half-days and the reference period is increased by 6 months - e.g. the criterion for persons aged under 36 is 312 half-days in 24 months.
 For young people who have recently completed training a waiting allowance is payable (dependent on training record).


Duration: In principle, duration is unlimited (but there may be some exceptions in the case of very long-term unemployed).

Amounts: Unemployment benefit pays up to 60% of previous average daily earnings, subject to minimum and maximum levels. The 60% is made up of a basic allowance of 35% plus supplements dependent on circumstances (adaptation 20%, loss of sole income 5%, family 20%). The amounts are reduced after 1 year.
 For part-time workers, benefits are paid in proportion to hours worked (full-time = 35 hours).

Benefit duration/amount affected by:
 Wages | Age | Employment history | Hours worked | Means Tested

Key issues for flexible workers:
 Self-employed: Not covered
 Part-time employees: Persons working less than 12 hours per week are not covered
 Temporary employees: The employment condition is quite onerous for temporary workers. The condition varies with age but the minimum is for 314 days in the previous 18 months. Assuming that

Figure 2 - Example questionnaire (Excel format)

 Directorate General for Employment, Social Affairs & Equal Opportunities	
Social protection coverage of persons in flexible employment	
Country	Osterreich
Benefit Type	Unemployment benefit
Scheme Type	Primary
Reference Year	2007
Scheme name	Unemployment benefit
Compulsory Coverage	Yes Employees
Eligibility Criteria	<p>52 weeks of contributions during the last 24 months. This condition is reduced to 26 weeks in 12 months for persons aged under 25. In case of repeated claims, the employment condition is 28 weeks during the past 12 months (or 52 weeks within the past 24 months).</p> <p>Employees employed on a limited basis (i.e. with employment earnings below € 341/month in 2007), persons employed on the basis of a non-standard contract, civil servants and most self-employed persons are exempted from unemployment insurance.</p>
Duration	<p>Normally paid for 20 to 52 weeks depending on the length of time insured and age.</p> <p>Duration can be extended if the beneficiary participates to active labour market measures.</p>
Amounts	<p>55% of average net income over the previous year, subject to daily rates between € 7-42.</p> <p>There is no guaranteed minimum income, so persons previously in low-paid jobs suffer the problem of low UB.</p> <p>The maximum benefit level is defined by the ceiling on insurable earnings (maximum basis for 2007 = €3,450).</p>
Benefit duration/amount affected by	
Wages	Yes
Age	Yes
Employment history	Yes
Hours worked	No
Means Tested	No
Key issues for flexible workers	
Self-employed	For self-employed, an earlier entitlement (based on former dependent employment) remains valid for an unlimited time period.
Part-time	No compulsory insurance if income is below the marginal earnings threshold (€ 341/month in 2007).
Temporary	No special conditions observed.
Source	Federal Ministry of Economics and Labour

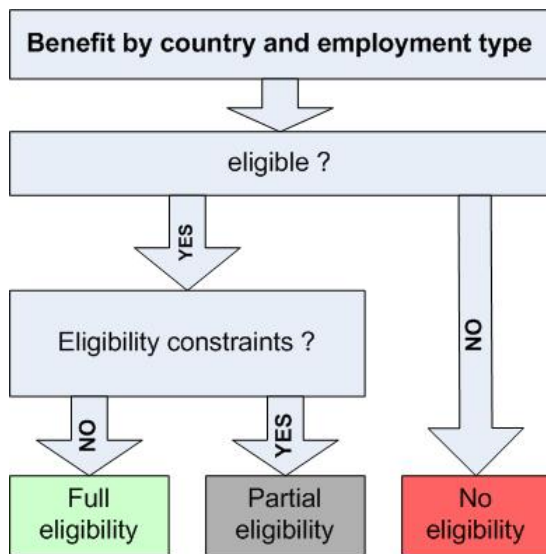
5 ANALYSIS OF QUALITATIVE DATA: ASSESSMENT OF DISADVANTAGES FOR FLEXIBLE WORKERS

Factors that result in some degree of disadvantage for flexible workers compared to regular workers can be separated into two major types – those related to eligibility criteria and those that impact on the value of benefits received, which can be reduced in terms of the rate paid or by the duration of the payment. Potential disadvantages were assessed on a scheme by scheme basis for each of the EU-27 countries. Primary and secondary schemes were evaluated separately. Alternative primary schemes (for the self-employed) were evaluated alongside primary schemes for regular employees.

Disadvantages related to eligibility

Eligibility is assessed in relation to the whole workforce of each type of employment type (all those self-employed, all part-time workers, all temporary workers). Three levels of eligibility are defined, *full eligibility*, *partial eligibility* and *no eligibility*.

- *Full eligibility* -> none of the criteria for eligibility to benefits discriminate against flexible workers so that the whole of the relevant workforce is potentially eligible to receive benefits.
- *Partial eligibility* -> the criteria governing eligibility to benefits exclude part of the workforce of a given type. For example, when persons working less than a certain number of hours are not insured against unemployment or some other risk then part of the population of part-time workers is excluded from benefits. Partial eligibility is not always clear cut – sometimes the regulations specifically exclude certain sub-groups of the population, other times a degree of interpretation has to be applied:
 - o Regulations specifically applied to flexible workers, for example: temporary employees must be engaged in a contract of more than 3 months with their current employer.
 - o Non-specific regulations combined with flexible employment status may create restrictions, for example: the basic time-at-work criterion that all employees must have been employed for 4 months in the past 6 creates difficulties for temporary employees – compliance can be achieved with consecutive contracts of less than 4 months but if there is a spell of unemployment/inactivity between contracts then the criterion becomes more difficult to fill for persons working under shorter contracts.
- *No eligibility* -> all flexible workers of a particular type are excluded from the benefit purely as a result of their employment status – most often this applies to self-employed workers.

Figure 3 - Eligibility assessment

Disadvantages related to the value of benefits received

In the first instance, the value of benefits received by flexible workers is linked directly to eligibility - if an individual is not eligible then no benefits are received. Once eligible to receive benefits then the value of benefits received by flexible workers may be lower than those received by regular workers for a number of reasons:

- shorter maximum duration of payments (e.g. regular employees entitled to 13 weeks maternity benefits whilst some flexible workers get only 7-8 weeks of benefits)
- lower value of payments (e.g. regular employees get wage-related benefits but some groups of flexible workers only qualify for flat rate benefits, often linked to the minimum wage or minimum subsistence income)
- longer waiting period (e.g. person is sick for 1 month – regular employees get benefits from the first day of illness but self-employed subject to a waiting period of 2 weeks so get only half the amount of benefits)

Note that for part-time workers, benefits that are reduced in value in proportion to hours worked are not treated as a disadvantage.

The assessment procedure is shown in Figure 4. In some countries self-employed workers are excluded from the primary scheme (i.e. the most favourable scheme available to regular workers) and qualify instead for benefits through an alternative primary scheme (Figure 5).

Figure 4 - Disadvantage assessment

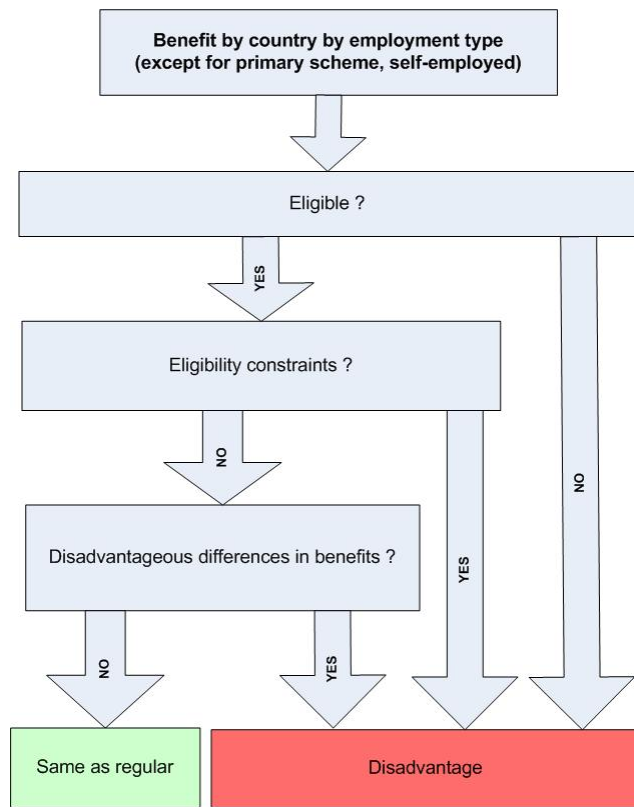
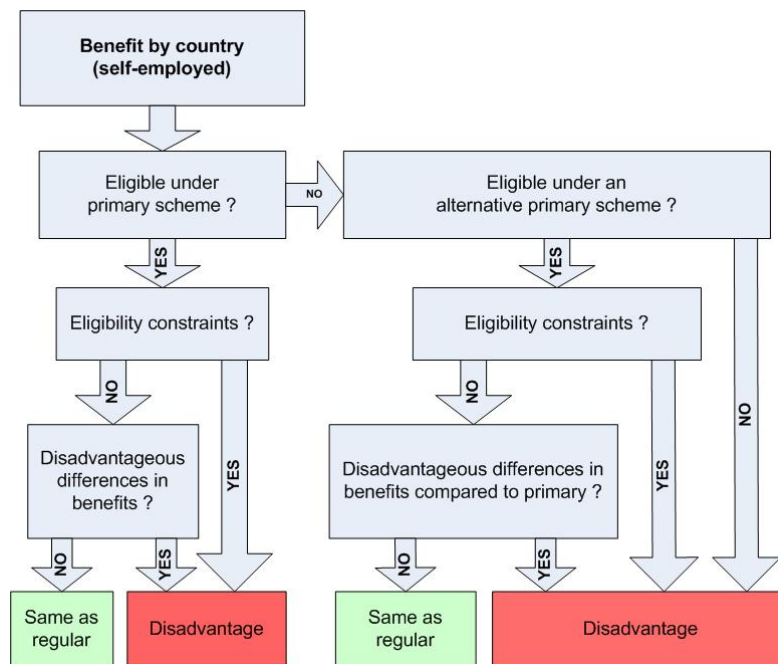


Figure 5 - Disadvantage assessment (self-employed)



5.1 Summary of qualitative analysis

An assessment of disadvantages (potentially) incurred by each group of flexible workers (self-employed, part-time employees and temporary employees) was carried out for all schemes in each country by type of benefit (maternity, paternity, unemployment, sickness). Table 1 shows the summary count of schemes covered by type of benefit. The study covers all EU countries so 27 primary schemes would be expected for each type of benefit but in some countries paternity benefits are considered as part of maternity benefit schemes and are not treated separately, hence the lower number of primary schemes for paternity. Secondary schemes for those not qualifying for the primary scheme because they do not fulfil the eligibility criteria or have exhausted their entitlement are used by more than half of countries for unemployment benefits (insurance/assistance) but less frequently for the other types of benefit. Special schemes for the self-employed (alternative primary) are used by less than a third of countries and most often to cover the risks of maternity and sickness. Note also that some alternative primary schemes (for the self-employed) are sectoral schemes – e.g. maternity and sickness benefits for self-employed farmers in Poland – and therefore apply to only part of the population of self-employed workers in each country.

Table 1 - Count of schemes by type of benefit, 2007

Type of benefit	Type of scheme			Total
	Primary	Alternative primary (for self-employed)	Secondary	
Maternity benefit	27	7	11	43
Paternity benefit	15		1	16
Sickness benefit	27	5	6	38
Unemployment benefit	27	1	16	44
Total	96	13	34	143

The detailed analysis of disadvantages is included in Annex 3 (the discrepancy table) where tables 1-12 summarise, for each country, the discrepancies in access to each of the four different types of benefit covered for each type of flexible employment.

Disadvantages related to eligibility (coverage)

Table 2 shows a summary of the number of schemes offering full, partial or no coverage to the different groups of flexible workers for each type of benefit. It can be seen that self-employed are the most likely to be disadvantaged – for all types of benefit there are a number of countries where self-employed workers are completely excluded from the primary scheme, especially in case of unemployment. Moreover, there are a significant number of cases where self-employed workers are also excluded from the secondary, fall-back scheme. On the other hand, the groups of part-time and temporary employees are at least partially covered by the primary scheme in all but one case and are never completely excluded from any secondary scheme.

Table 2 - Summary of coverage for flexible workers by type of benefit and scheme

<i>Scheme type</i>	<i>Coverage</i>	<i>Maternity benefit</i>	<i>Paternity benefit</i>	<i>Sickness benefit</i>	<i>Count of schemes</i> <i>Unemployment benefit</i>
Self-employment					
Primary	<i>Full</i>	15	7	6	5
	<i>Partial</i>	7	0	16	6
	<i>None</i>	5	8	5	16
	Total	27	15	27	27
Alternative primary (for the self-employed)	<i>Full</i>	1	0	0	0
	<i>Partial</i>	3	0	3	1
	Total	4	0	3	1
Secondary	<i>Full</i>	7	1	2	10
	<i>Partial</i>	1	0	2	1
	<i>None</i>	3	0	2	5
	Total	11	1	6	16
Part-time employment					
Primary	<i>Full</i>	19	13	20	15
	<i>Partial</i>	8	2	7	12
	<i>None</i>	0	0	0	0
	Total	27	15	27	27
Secondary	<i>Full</i>	10	1	5	11
	<i>Partial</i>	1	0	1	5
	<i>None</i>	0	0	0	0
	Total	11	1	6	16
Temporary employment					
Primary	<i>Full</i>	20	13	26	10
	<i>Partial</i>	7	1	1	17
	<i>None</i>	0	1	0	0
	Total	27	15	27	27
Secondary	<i>Full</i>	11	1	6	12
	<i>Partial</i>	0	0	0	4
	<i>None</i>	0	0	0	0
	Total	11	1	6	16

Taking all types of benefit together, self-employed workers are fully covered by the primary scheme or an alternative primary scheme - in just less than one third of cases (Table 3) whilst part-time and temporary employees are fully covered in more than two thirds of cases. Access to secondary schemes is also restricted for self-employed with full coverage available in less than 60% of cases compared to nearer to 80% of cases for part-time employees and approaching 90% of cases for temporary employees.

Table 3 – Summary of coverage for flexible workers (all benefit types)

	Self-employment	Part-time employment	Number of schemes
			Temporary employment
Primary (including alternative primary)			
Full	34	67	69
Partial	36	29	26
None	34	0	1
Secondary			
Full	20	27	30
Partial	4	7	4
None	10	0	0
	Self-employment	Part-time employment	% schemes
			Temporary employment
Primary (including alternative primary)			
Full	32.7	69.8	71.9
Partial	34.6	30.2	27.1
None	32.7	0.0	1.0
Secondary			
Full	58.8	79.4	88.2
Partial	11.8	20.6	11.8
None	29.4	0.0	0.0

Disadvantages related to the value of benefits received

Workers that are not covered by a particular social protection scheme clearly receive no benefits through that scheme and are therefore disadvantaged compared to regular employees that do qualify for benefits. Additionally, regulations governing the amount and duration of benefits can confer further disadvantage on flexible workers.

A summary count of the number of schemes where flexible workers are to some extent disadvantaged compared to regular workers is shown in Table 4. It has already been established above that self-employed workers are simply excluded from many social protection schemes so it is not surprising that this group is also most affected when all types of disadvantage are taken into account. Indeed, in the case of sickness and unemployment benefits, self-employed workers are potentially disadvantaged in more than 80% of primary schemes. Part-time and temporary workers are most likely to experience some degree of disadvantage in case of unemployment (part-time: 44% of primary schemes and 31% of secondary schemes; temporary: 63% of primary schemes and 25% of secondary schemes).

Looking at all types of benefit together (Table 5), self-employed workers are liable to experience some kind of disadvantage in around two-thirds of primary schemes and over 40% of secondary schemes whilst part-time and temporary workers are disadvantaged in less than one third of all schemes.

Table 4 - Number of schemes where flexible workers are (potentially) disadvantaged compared to regular workers, by type of benefit

	<i>Maternity benefit</i>	<i>Paternity benefit</i>	<i>Sickness benefit</i>	<i>Count of schemes Unemployment benefit</i>
Self-employment				
Primary (+Alternative primary)				
<i>Disadvantage</i>	11	8	22	23
<i>No disadvantage</i>	16	7	5	4
Total	27	15	27	27
Secondary				
<i>Disadvantage</i>	4	0	4	6
<i>No disadvantage</i>	7	1	2	10
Total	11	1	6	16
Part-time employment				
Primary				
<i>Disadvantage</i>	8	2	7	12
<i>No disadvantage</i>	19	13	20	15
Total	27	15	27	27
Secondary				
<i>Disadvantage</i>	1	0	1	5
<i>No disadvantage</i>	10	1	5	11
Total	11	1	6	16
Temporary employment				
Primary				
<i>Disadvantage</i>	7	2	1	17
<i>No disadvantage</i>	20	13	26	10
Total	27	15	27	27
Secondary				
<i>Disadvantage</i>	0	0	0	4
<i>No disadvantage</i>	11	1	6	12
Total	11	1	6	16

Table 5 - Number of schemes where flexible workers are (potentially) disadvantaged compared to regular workers (all benefit types)

	Self-employment	Part-time employment	Temporary employment
<i>Number of schemes</i>			
Primary (including alternative primary)			
<i>Disadvantage</i>	64	29	27
<i>No disadvantage</i>	32	67	69
Secondary			
<i>Disadvantage</i>	14	7	27
<i>No disadvantage</i>	20	27	69
<i>% schemes</i>			
Primary (including alternative primary)			
<i>Disadvantage</i>	66.7	30.2	28.1
<i>No disadvantage</i>	33.3	69.8	71.9
Secondary			
<i>Disadvantage</i>	41.2	20.6	28.1
<i>No disadvantage</i>	58.8	79.4	71.9

6 COLLECTION AND ANALYSIS OF QUANTITATIVE DATA (AFFECTED POPULATION)

In order to calculate indicators of coverage, two types of data are needed. Firstly there is largely qualitative information on the rules governing entitlement to benefits, the collection of which is covered above. Secondly, statistical data are needed to describe and evaluate the populations of interest – i.e. those considered as being in flexible employment (self-employed, working part-time or in fixed term employment) and who may be disadvantaged (in terms of access to benefits) by their employment situation.

Collection of data

For this study, data from the European Labour Force Survey (LFS) - which is generally considered as the most reliable and comparable source of labour market data – were obtained from Eurostat. The main dataset can be summarised as:

Coverage:

- Years: 2003 to 2007
- Gender: Total, men, women
- Age: Total and youth (15+ and 15-24)

Main variables:

1. Persons in employment by professional status:

- Self-employed
- Employees with breakdown by permanent/temporary and full/part-time
- Family workers

2. Persons employed in temporary contracts by duration of contract:

- < 1mth
- 1-3
- 4-6
- 7-12
- 13-18
- 19-24
- 25-36
- >36
- No response

3. Part-time, permanent employees by average hours usually worked:

- 0-9
- 10-14
- 15-19
- 20-24
- 25-29
- 30-34
- 35+
- variable hours
- no answer

Data were received as a single file extracted from the LFS data on the basis of the request below and then processed to create summary data for use in the calculation of indicators:

The number of men and women by age 15-64, 65+ and 15-24 by STAPRO, by TEMP, by TEMPDUR, by FTPT and by HWUSUAL (0-9, 10-14, 15-19, 20-24, 25-29, 30-34, 35+, 00 [hours vary], blank)

Analysis of data

A background analysis looking at the importance of the different types of flexible employment in each country, including breakdowns by gender and by age was completed and is included in Annex 4.

7 REVIEW OF METHODOLOGY (INDICATORS)

The ultimate aim of the project is to develop indicators of social protection coverage for workers in atypical forms of employment that can contribute to the monitoring of flexicurity issues. Reliable indicators need a sound methodological basis, which clearly defines the underlying data and the method of calculation, so that they can be compared between countries and calculated on an ongoing basis for monitoring progress. Useful indicators also need to be meaningful so that users can easily grasp what the values mean and the implications thereof. This is particularly important in the political context within which the indicators will be used, where the main users will be policy-makers.

The feasibility study concluded that indicators of coverage should refer to individual benefit-types and that composite measures would be difficult to interpret and it was agreed in the first project meeting that this approach should be maintained. However, the indicators developed in the feasibility study in some places used weights in order to adjust for different degrees of disadvantage – for example to differentiate between those that are completely excluded from benefits and those that receive reduced amounts (value/duration) purely as a result of their employment status. The weighted indicator of coverage is defined as follows:

Weighted coverage (IND2) = $(\text{FEOK} + .75 * \text{FER} + 0.5 * \text{FEM} + 0.25 * \text{FERM}) / \text{FE} (\%)$

Where

- FE = total flexible workers
- FEOK = flexible workers who will receive cash benefits at the standard rate
- FER = flexible workers who will receive some cash benefits, albeit at a reduced rate
- FEM = flexible workers whose benefits will be means tested so that they are not guaranteed to receive any payments - however, those that do will receive them at the standard rate
- FERM = flexible workers whose benefits will be means tested so that they are not guaranteed to receive any payments - moreover, those that do will receive them at a reduced rate

As noted in the feasibility study, these weights are purely arbitrary so in order to assess whether or not the values applied are appropriate, some sensitivity testing was undertaken. As with many indicators, the interest is not necessarily in the absolute values obtained, but the way in which they reflect the situation in each country and the differences between them. Therefore, the main focus of the analysis was to see if changes in the value of the different weights significantly affected the ranking of country results.

Sensitivity testing was undertaken using data on unemployment benefits because there is more variety in schemes between countries than for other types of benefit. A summary of the analysis is included in Annex 5.

8 CALCULATION OF INDICATORS (QUANTITATIVE)

The feasibility study proposed four possible indicators to measure the social protection coverage of workers in different forms of flexible employment:

IND1 Shows the proportion of flexible workers (as a total or by type of employment) eligible for standard benefits:

$$\text{IND1} = \text{FEOK} / \text{FE} (\%)$$

IND2 Shows a weighted coverage for flexible workers (as a total or by type of employment), cumulating the numbers eligible for full benefits (100% weight), reduced benefits (75% weight), means-tested full benefits (50% weight) or means-tested reduced benefits (25% weight):

$$\text{IND2} = (\text{FEOK} + .75 * \text{FER} + 0.5 * \text{FEM} + 0.25 * \text{FERM}) / \text{FE}$$

IND3 Shows the proportion of all workers eligible for standard benefits:

$$\text{IND3} = (\text{FEOK} + \text{RE}) / \text{TOTEMP} (\%)$$

IND4 Shows the weighted coverage of all workers, cumulating the numbers eligible for full benefits (100% weight), reduced benefits (75% weight), means-tested full benefits (50% weight) or means-tested reduced benefits (25% weight):

$$\text{IND4} = (\text{RE} + (\text{FEOK} + .75 * \text{FER} + 0.5 * \text{FEM} + 0.25 * \text{FERM})) / \text{TOTEMP}$$

A full set of indicator values were calculated for each type of benefit (unemployment, sickness, maternity and paternity) and for all countries, using the spreadsheet model developed in the feasibility study and the processed LFS data for 2007. Note that in some countries paternity benefits are part of the maternity benefit scheme and indicators for paternity benefits are calculated only for those 15 countries where there are separate paternity benefit schemes.

A full set of completed questionnaires is included in Annex 6. There is one Excel file for each type of benefit (unemployment, sickness, maternity and paternity) with one page per country containing the completed questionnaire.

9 REVIEW OF RESULTS AND APPLICABILITY FOR ONGOING MONITORING

The results from the completed questionnaires are summarised in a series of tables and graphs in Annex 7, the contents of which are listed in Table 6.

Table 6 - Contents of Annex 7 - Summary tables/graphs showing the results from the quantitative questionnaires

Summary tables showing numbers employed and numbers eligible to receive different levels of benefit		
<i>Unemployment benefits</i>		
	Table 3.1a	Summary results, men and women
	Table 3.1b	Summary results, men
	Table 3.1c	Summary results, women
	Table 3.2a	Indicators, men and women
	Table 3.2b	Indicators, men
	Table 3.2c	Indicators, women
<i>Maternity benefits</i>		
	Table 3.4	Summary results, women
	Table 3.5	Indicators, women
<i>Paternity benefits</i>		
	Table 3.6	Summary results, men
	Table 3.7	Indicators, men
<i>Sickness benefits</i>		
	Table 3.8a	Summary results, men and women
	Table 3.8b	Summary results, men
	Table 3.8c	Summary results, women
	Table 3.9a	Indicators, men and women
	Table 3.9b	Indicators, men
	Table 3.9c	Indicators, women
Graphs of indicators		
<i>Unemployment benefits</i>		
	Graph 3.1	Full coverage for flexible workers by type of employment (IND1)
	Graph 3.2	Weighted coverage for flexible workers by type of employment (IND2)
	Graph 3.3	Full coverage for all workers (IND3)
	Graph 3.4	Weighted coverage for all workers (IND4)
	Graph 3.5	Full coverage for all flexible workers by sex (IND1)
	Graph 3.6	Weighted coverage for all flexible workers by sex (IND2)
	Graph 3.7	Full coverage for all workers by sex (IND3)
	Graph 3.8	Weighted coverage for all workers by sex (IND4)
<i>Maternity benefits</i>		
	Graph 3.9	Full and weighted coverage for female flexible workers (IND1 & IND2)
	Graph 3.10	Full and weighted coverage for all female workers (IND3 & IND4)
<i>Maternity benefits</i>		
	Graph 3.11	Full and weighted coverage for male flexible workers (IND1 & IND2)
	Graph 3.12	Full and weighted coverage for all male workers (IND3 & IND4)
<i>Sickness benefits</i>		
	Graph 3.13	Full coverage for flexible workers by type of employment (IND1)
	Graph 3.14	Weighted coverage for flexible workers by type of employment (IND2)
	Graph 3.15	Full coverage for all workers (IND3)
	Graph 3.16	Weighted coverage for all workers (IND4)
	Graph 3.17	Full coverage for all flexible workers by sex (IND1)
	Graph 3.18	Weighted coverage for all flexible workers by sex (IND2)
	Graph 3.19	Full coverage for all workers by sex (IND3)
	Graph 3.20	Weighted coverage for all workers by sex (IND4)

9.1 Quantitative indicator results

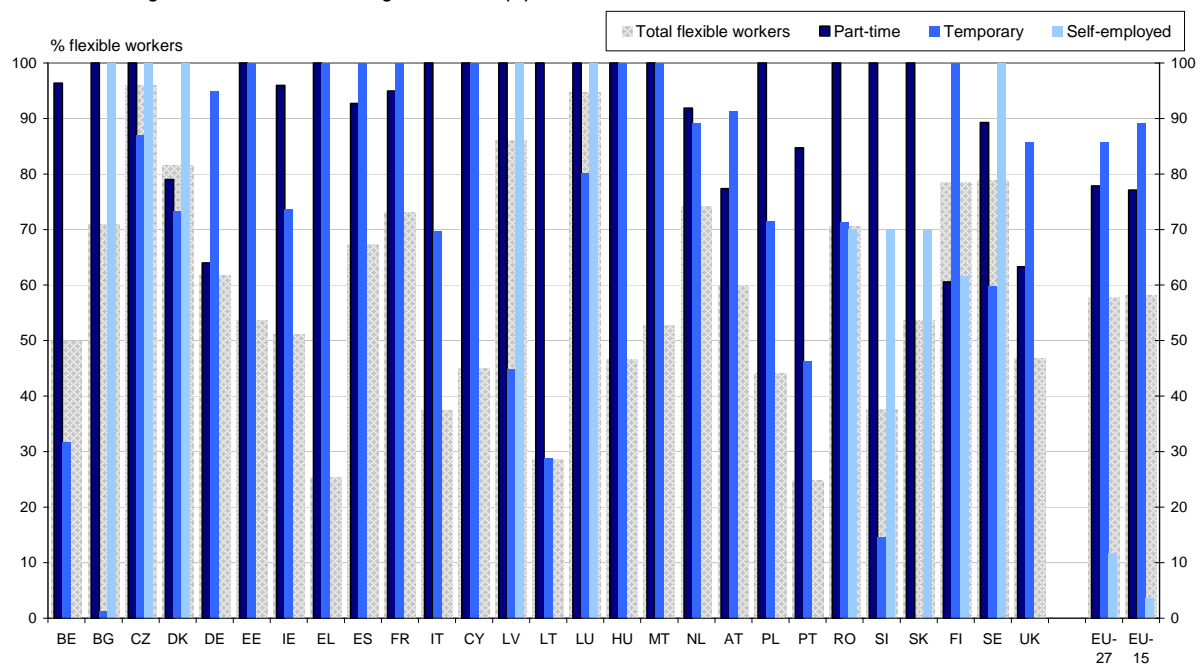
Unemployment benefits

Graph 3.1 shows the proportion of flexible workers that are fully eligible for unemployment benefits. Across the EU less than 60% of all flexible workers are fully covered but the extent of the disadvantage does not apply equally to the different groups of workers with only 12% of the self-employed covered compared to 78% of part-time workers and 86% of temporary workers. Coverage of all flexible workers is around 90% or higher in the Czech Republic and Luxembourg but below 30% in Greece, Lithuania and Portugal.

The situation of the self-employed has a significant impact on the result for all flexible workers as can be seen from two examples from the extremes. In the Czech Republic there is only one universal scheme for unemployment benefits which treats self-employed workers equally with any other workers so long as the social contributions have been paid. Since contributions are compulsory (based on self-declared income) access to benefits has to be considered equivalent to that for regular employees also paying compulsory contributions so that coverage for the self-employed is 100% and the overall figure for all workers is reduced only by some temporary workers who may find it difficult to meet the minimum time at work condition. By contrast, in Greece, the main unemployment insurance system does not cover self-employed workers and although there are insurance schemes for self-employed farmers and craft/commerce workers these do not cover the risk of unemployment. Therefore the coverage of self-employed is zero and, because self-employment is so important in Greece (28% of all employment – the highest level in the EU – and 75% of flexible employment), this weighs heavily on the overall figure so that even though all part-time and temporary workers are fully covered, the final indicator shows that only that 25% of flexible workers are fully covered.

Graph 3.1 Indicators on the coverage of unemployment benefits for flexible workers by type of work (IND1), 2007

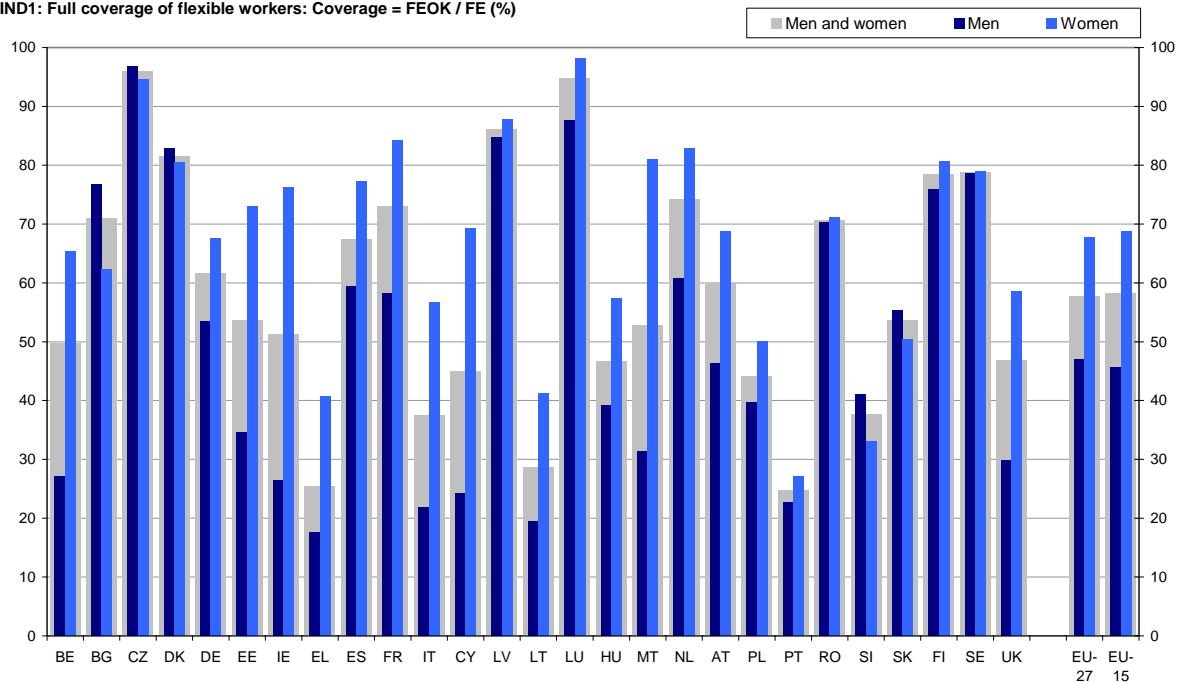
IND1: Full coverage of flexible workers: Coverage = FEOK / FE (%)



As shown in Graph 3.5, there is a fairly significant difference in the results by gender – 68% of all female flexible workers are fully covered in case of unemployment compared to just 47% of male workers. Again, this difference is largely down to the influence of self-employment, which is far more prevalent amongst men (50% of all flexible workers) than amongst women (20%). Since self-employed workers are significantly less well covered than part-time or temporary workers this impacts on the overall results for men much more than for women, nearly half of whom work part-time and are reasonably well covered.

G3.5 Indicators on the coverage of unemployment benefits for flexible workers by sex (IND1), 2007

IND1: Full coverage of flexible workers: Coverage = FEOK / FE (%)



The weighted indicator of coverage for flexible workers (IND2) extends on the full coverage indicator by taking into account workers who are partially covered – i.e. receive benefits at a lower level or subject to means testing or both. Weighted parts of each disadvantaged population are added to those fully covered so values of the final indicator are, by definition, always higher than – or in the best case (100% full coverage) the same as – those for the full coverage indicator. At EU level, the weighted indicator (IND2) gives a result of 71 (Graph 3.2) compared to 58 for full coverage (IND1), though it should be noted that the figures are not really directly comparable since IND1 is expressed as a percentage whilst IND2 includes numbers of three categories of workers that are reduced by weights so that the final value has to be considered as an index rather than a percentage. Even when flexible workers are not treated equally with regular workers, there are many cases when the qualification conditions and/or benefits received are only slightly disadvantageous and the weighted indicator attempts to recognise this by including parts of groups disadvantaged to different extents. By doing so it means that fewer flexible workers are excluded from the measurement so that the range of values observed is much reduced:

	Maximum	Minimum
Full coverage (IND1)	95.9	24.8
Weighted coverage (IND2)	96.9	43.6

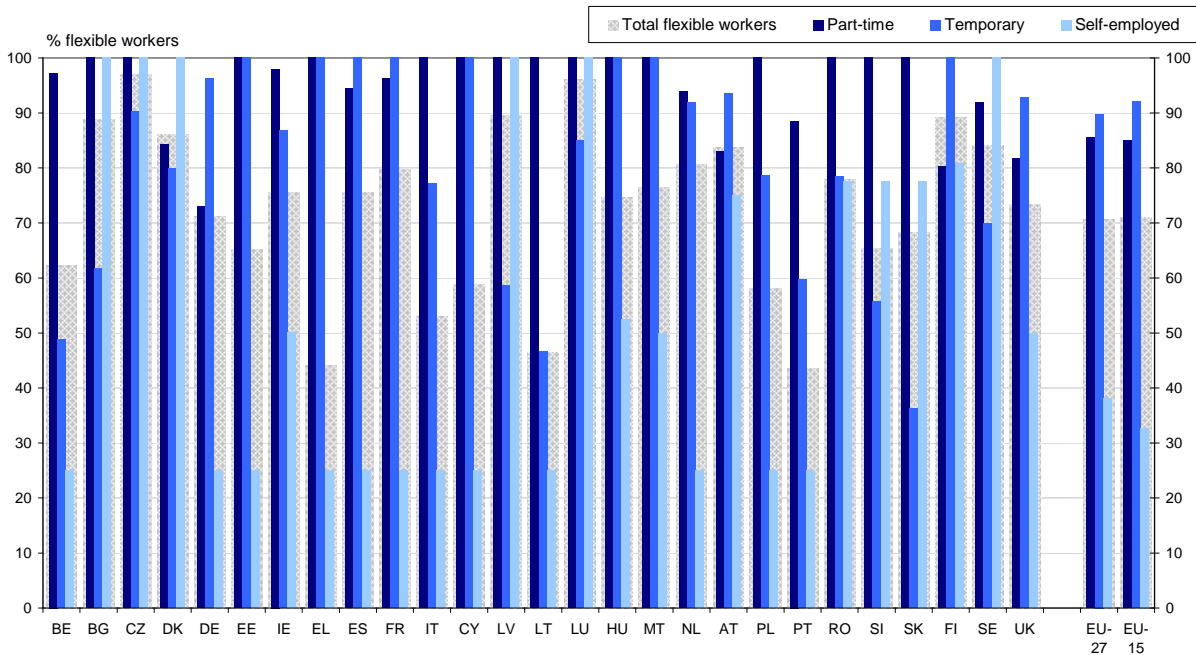
Much of the difference between the weighted and full coverage indicators relates to self-employed workers who are often excluded from the main unemployment insurance scheme but may be eligible to participate in the secondary, unemployment assistance scheme (or similar). Often the level of benefits paid through the secondary scheme is more or less equivalent to those available in the primary scheme but all secondary schemes are subject to means testing so that many flexible workers becoming unemployed will receive nothing whilst their regular counterparts would first benefit from a period of guaranteed payment before being subjected to a means test. In this case the index will automatically include half of the population of self-employed if the secondary benefits are only means tested (0.5*FEM) or a quarter of this group if the benefits are reduced and means tested (0.25*FERM). Hence, for several countries whilst the index of full coverage was zero for self-employed workers the weighted index gives values of 25 or 50 for self-employed workers and this in turn increases the result for all flexible workers.

Across the EU, the weighted coverage in case of unemployment is improved compared to the full coverage rate for all types of flexible worker but noticeably more so for the self-employed than the other types of worker:

	Full coverage (IND1, %)	Weighted coverage (IND2)
Self-employed	11.7	38.1
Part-time employees	77.8	85.6
Temporary employees	85.7	89.8
All flexible workers	57.7	70.6

Graph 3.2 Indicators on the coverage of unemployment benefits for flexible workers by type of work (IND2), 2007

IND2: Weighted coverage of flexible workers: Coverage = (FEOK + .75 * FER + 0.5 * FEM + 0.25* FERM) / FE (%)

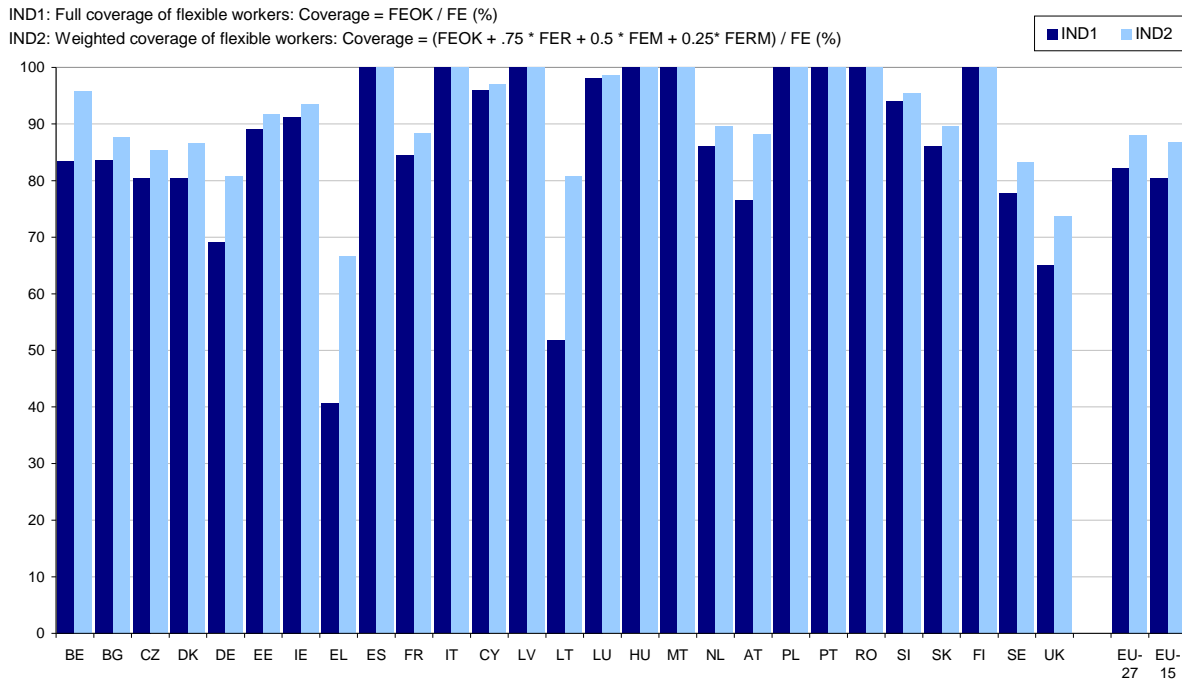


Maternity and paternity benefits

Over 80% of women in flexible employment across the EU are fully covered in case of maternity and the weighted index figure is nearer to 90 (Graph 3.9). Low coverage in

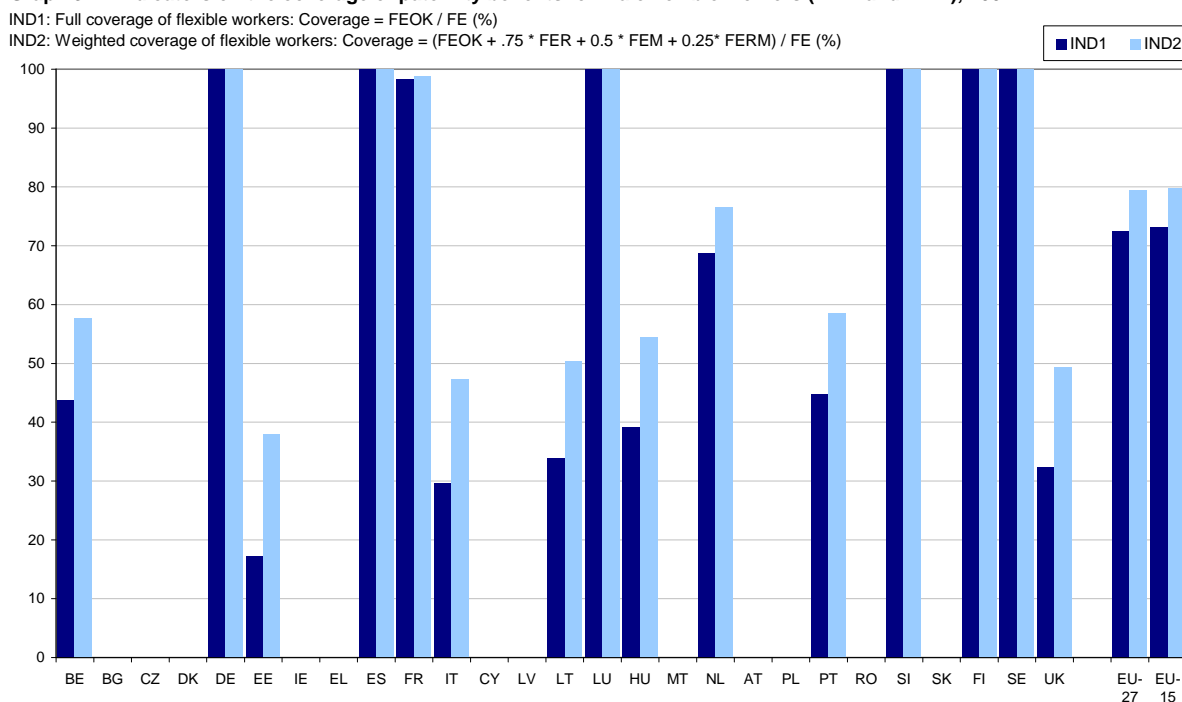
countries like Greece and Lithuania is a direct result of self-employed women not being eligible for maternity. This is also the case in other countries - Belgium, Denmark, Germany, Austria and the United Kingdom – but here self-employment is much less prevalent amongst female workers so that the coverage index is less affected.

Graph 3.9 Indicators on the coverage of maternity benefits for female flexible workers (IND1 and IND2), 2007



The same issue affects paternity benefits but here the affect is more pronounced because self-employment is more common amongst men with the result that indicators show either more or less full coverage or quite low coverage (Graph 3.11). Across the Union, around 73% of flexible workers have access to paternity benefits that is on a par with regular workers (IND1) and the weighted index takes this figure up to almost 80 (IND2).

Graph 3.11 Indicators on the coverage of paternity benefits for male flexible workers (IND1 and IND2), 2007



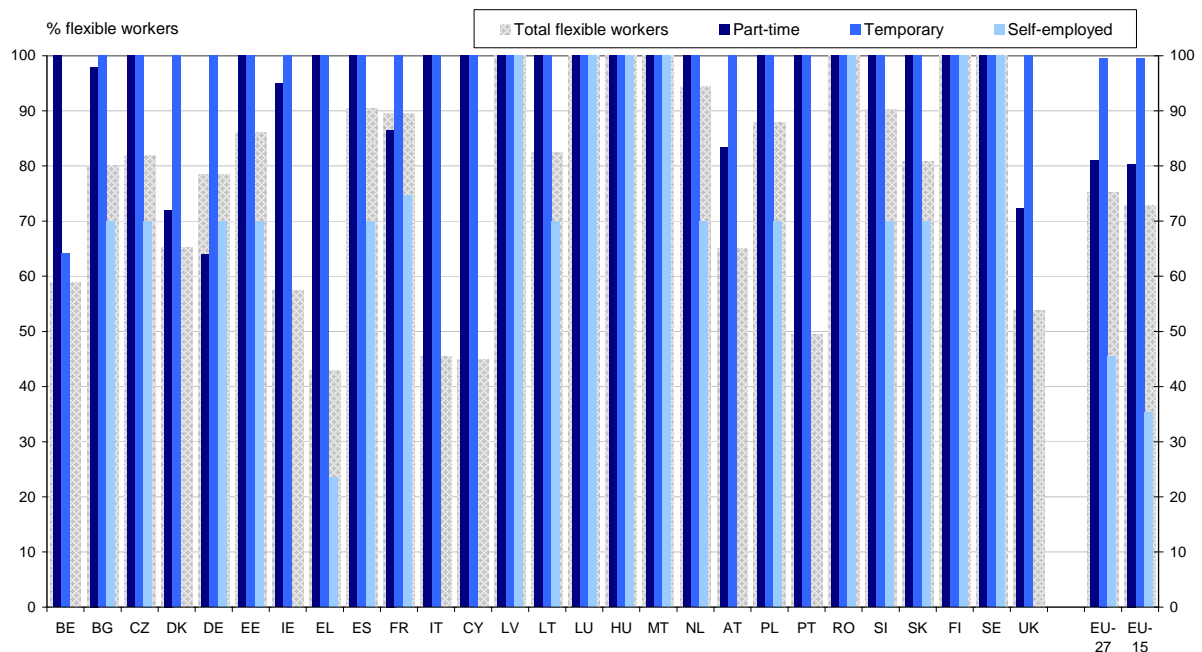
Sickness benefits

Around 75% of flexible workers across the EU are fully covered in case of sickness - a level significantly above that for unemployment but lower than for maternity. As with the other forms of benefit, the self-employed are the main group to be disadvantaged with only 45% being covered compared to 81% of part-time workers and almost 100% of temporary workers (Graph 3.13). However, in a number of cases the self-employed are not excluded from cover in case of sickness, rather they are not eligible for benefits at the optimum rate. For example, in the United Kingdom self-employed workers who cannot work due to illness may claim *Short-term Incapacity Benefit*, which is paid at a flat rate of € 91/week (for the first 28 weeks) whilst regular employees go on to *Statutory Sick Pay* which is paid at a standard rate of € 107/week. So the self-employed do get reasonable benefits, just at a slightly lower rate than regular employees. This kind of minor disadvantage is not reflected at all in the indicator of full coverage (IND1) but is taken into account in the weighted indicator (IND2) when 75% of self-employed workers are included in the numerator as flexible workers covered with reduced benefits.

Overall, the weighted indicator gives a figure of 85 for EU-wide coverage of sickness benefits (Graph 3.14). In general, the lowest coverage occurs in countries where the self-employed are not fully covered and marginal part-time workers are not insured (unless they take out voluntary insurance).

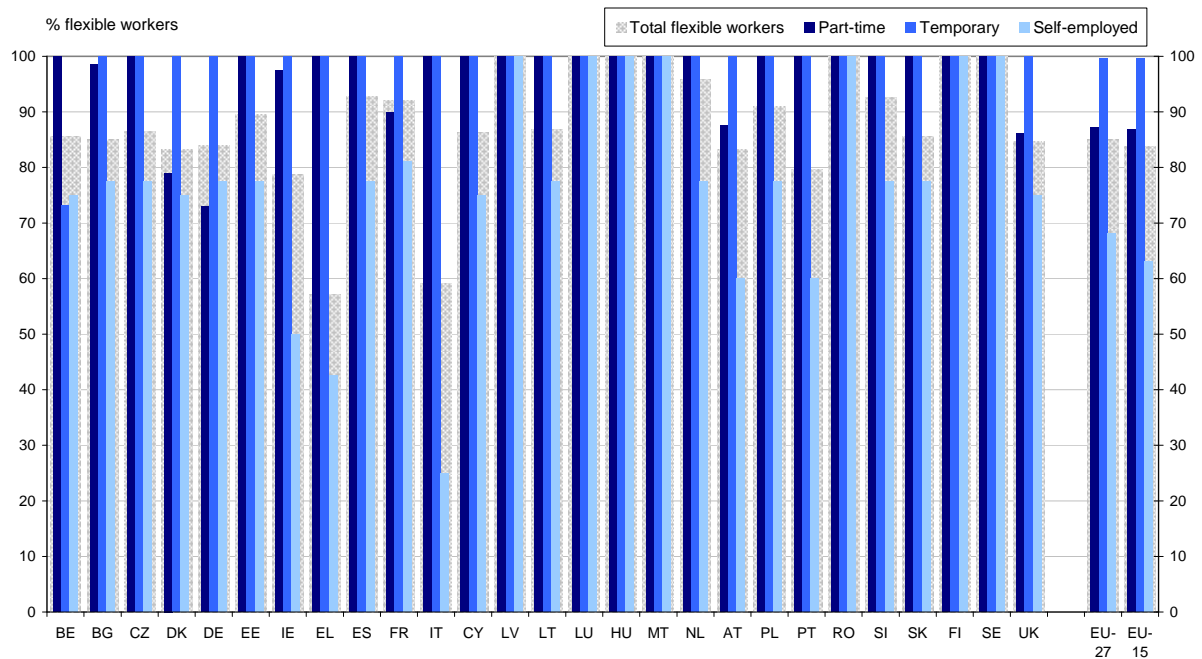
Graph 3.13 Indicators on the coverage of sickness benefits for flexible workers by type of work (IND1), 2007

IND1: Full coverage of flexible workers: Coverage = FEOK / FE (%)



Graph 3.14 Indicators on the coverage of sickness benefits for flexible workers by type of work (IND2), 2007

IND2: Weighted coverage of flexible workers: Coverage = (FEOK + .75 * FER + 0.5 * FEM + 0.25* FERM) / FE (%)



9.2 Comparison of indicator results, 2003 and 2007

It is important that indicators for monitoring can be followed through time to see if improvements are being made. The results of the current study referring to 2007, were therefore compared to those of the feasibility study, which referred to 2003. The scope of the comparison is clearly restricted to the smaller scope of the feasibility study which covered unemployment and maternity benefits for the EU-15 countries only.

The comparison of current results and the pilot is not straightforward. In theory, changes through time should reflect either changes in regulations governing access to benefits, which could affect the proportion of people covered, or changes in the structure of employment. For example, an increase in the numbers of self-employed would probably cause indicators to decline in most countries because the self-employed are generally the least well-off with respect to benefit coverage. Other changes, such as a shifts in the average duration of contracts for temporary workers could also have an impact as it affects how many people have difficulty with the time-at-work condition for access to benefits.

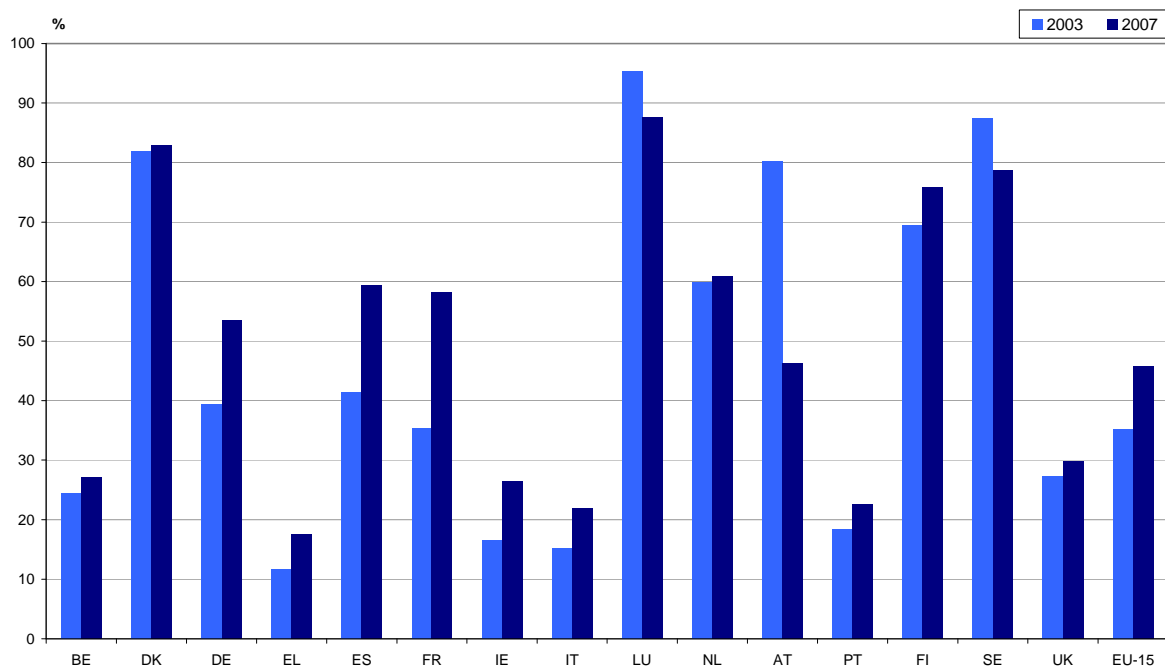
However, in practice, there are important issues resulting work completed in the current, extended study, that will also cause changes in the results and which cannot easily be distinguished. On the one hand, the quality of information on regulations for each benefit has been improved through further research and consultation with Member States. This can lead to quite different results as more refined eligibility criteria can shift large parts of populations of flexible workers to different categories. For the comparison, it is not possible – without detailed research – to know for certain if differences in the regulations are due to improved information or to real changes. It is therefore not possible to be sure that a difference in the final results is real or not.

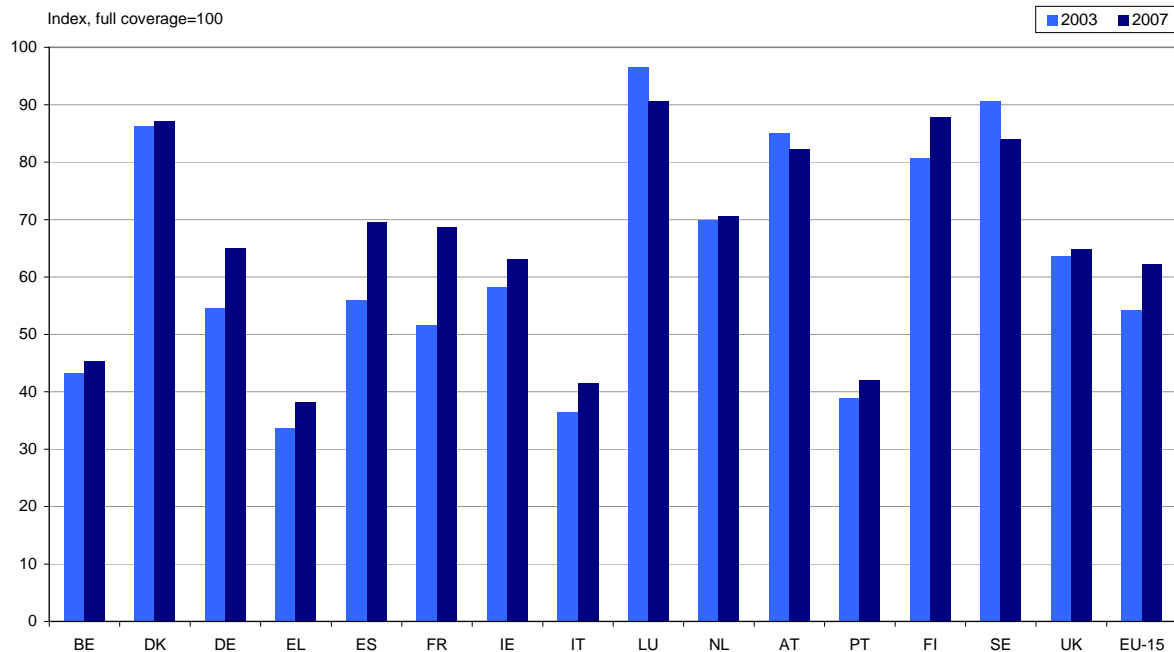
A second issue that will cause differences is that the method for treating the time-at-work constraint has been improved in order to make it less restrictive. This change will affect results for temporary workers and, therefore, aggregates for all workers, in some countries but not others.

G1 shows compares values for the full coverage indicator for unemployment benefits and all flexible workers. The value for the EU-15 is 7.5 percentage points higher in 2007 than in 2003 as it is in the majority of countries (12) – only in Luxembourg, Austria and Sweden is the 2007 value lower than in 2003. The largest difference is observed in Austria (22 percentage points) and the difference results from the fact that 2007 qualitative information indicate that self-employed workers tend to receive lower rates of benefits than regular workers whilst the 2003 information did not include this point even though it was probably valid at the time. The second largest difference is found in Spain where there is 20 percentage points difference between the two observations. In this case the difference results from the change in the method used to determine the minimum contract needed to fulfil the time at work requirement for temporary employees. Here the method used in 2007 is considered more representative.

G2 shows a similar pattern for the values of the weighted coverage indicator (IND2) for unemployment benefits. This is to be expected since IND2 starts with the same data as IND1 but then adds in weighted shares of populations receiving less than full coverage. The result is broadly the same pattern but with reduced differences.

G11.1 Coverage of social protection benefits for flexible workers: Unemployment indicator IND1, 2003 and 2007, EU-15

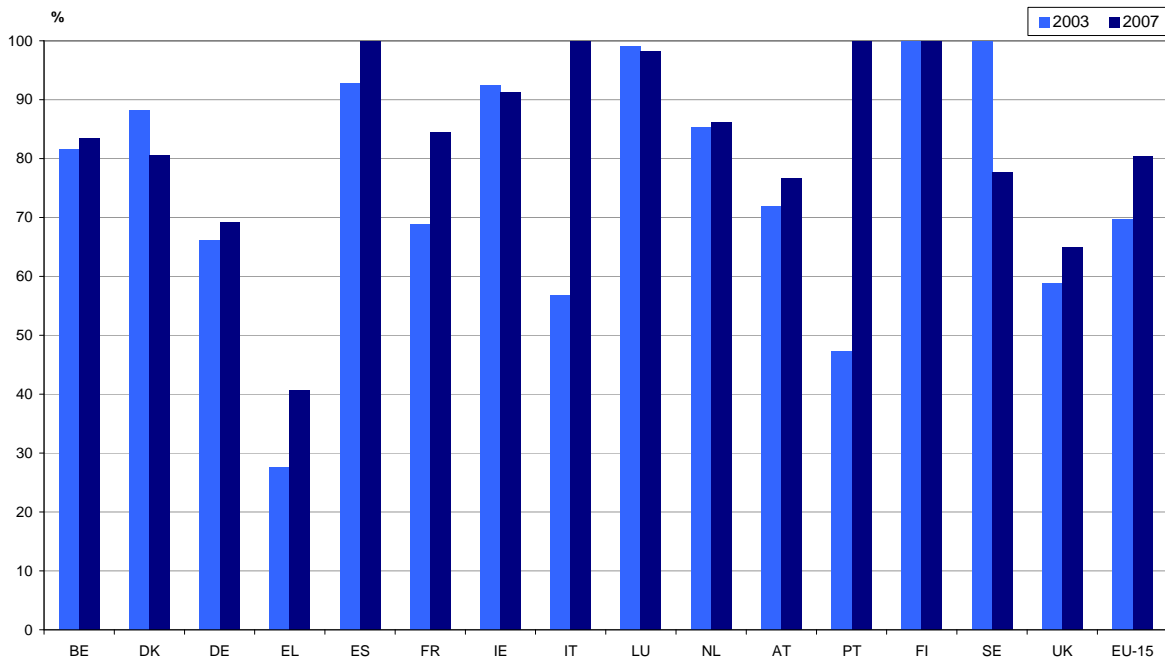


G11.2 Coverage of social protection benefits for flexible workers: Unemployment indicator IND2, 2003 and 2007, EU-15

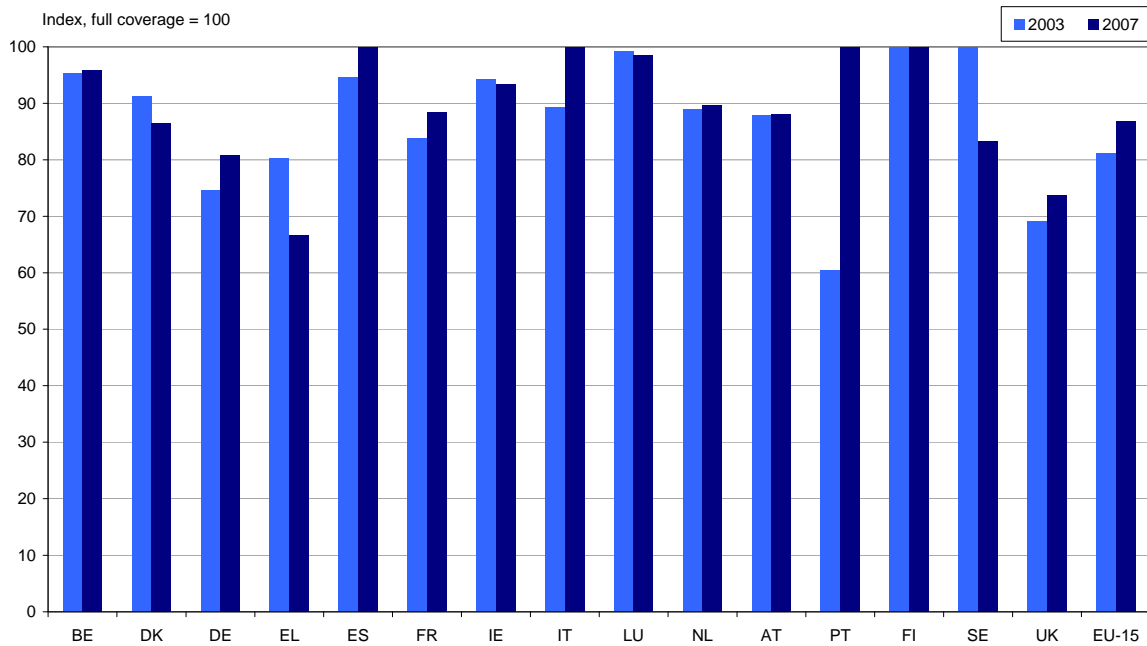
G3 shows the full coverage indicator (IND1) for maternity benefits and again the 2007 figures are generally higher than in 2003. The most noticeable difference between years for maternity benefits is can be seen in Portugal (53 percentage points). This stems from the fact that the 2003 qualitative information reported that the self-employed were not covered by the main maternity benefit scheme whilst the 2007 information indicates that they are. The second largest difference is found in Italy (43 percentage points). Again this derives from a number of differences in the details of the conditions governing access to benefits for the self-employed. G4 shows the weighted indicator for maternity and, as with unemployment benefits, the same pattern but with reduced differences is observed.

In general, the indicators of coverage for maternity and unemployment benefits are higher in 2007 than in 2003. Small differences are likely to result from changes in the structure of employment and the relative numbers of people in the different types of flexible employment and groups within these – if more people work in types of employment that are not well covered then indicator values will rise, and vice versa. Some significant difference can be attributed to details in the benefit regulations that are most likely to be as a result of improved information in the current study rather than real changes. Other important differences relate to changes in the methodology that affect the observed coverage of temporary workers.

G11.3 Coverage of social protection benefits for flexible workers: Maternity indicator IND1, 2003 and 2007, EU-15



G11.4 Coverage of social protection benefits for flexible workers: Maternity indicator IND2, 2003 and 2007, EU-15



9.3 Applicability for ongoing monitoring

In compilation of the detailed information on benefit regulations and its subsequent application to quantitative data on numbers of persons employed in different circumstances a number of points became clear:

- The qualitative information needed to understand how access to benefits may be limited for persons in different flexible employment situations is not straightforward to collect. Even when national experts are provided with detailed guidelines on the information required, the first results are not always adequate.
- Qualitative information describing eligibility to benefits and the factors influencing the amount and duration of benefits payable has to be interpreted in order to assess the impact on flexible workers and this interpretation is inevitably subjective to some extent, though the subjectivity is largely eliminated when the qualitative information is adequately detailed for the issues of interest.
- The interpreted coverage is then applied to detailed quantitative data, which are drawn from the LFS and considered comparable between countries. However, the data needed are detailed and require a reasonable amount of processing. In some cases additional estimations are also required (e.g. to estimate numbers of persons working less than a certain number of hours from a larger group).
- Overall, it means that there is a significant burden in compiling the indicators that could be a drawback for routine monitoring.

It was decided, therefore, to explore the possibility of developing a much simpler, purely qualitative indicator that would be more straightforward to compile and not dependent on the collection of so much detailed qualitative and quantitative data.

10 DEVELOPMENT OF A SIMPLER, QUALITATIVE INDICATOR

The quantitative indicator developed in the feasibility study requires detailed information about the eligibility criteria and value/duration of benefits paid to different groups. It also requires detailed statistics on the numbers of persons employed in different circumstances. From the experience of collecting qualitative information on benefits, first from MISSOC and then from national experts, it became apparent that the requirements are quite onerous and that expert knowledge is necessary to ensure quality of results. If the indicator is to be used for routine monitoring then this burden could limit the interest in regular updating and an alternative, simpler approach was therefore explored.

From the range of information gathered from all EU-27 countries the main common issues that reduce access to, or the value of benefits received, by persons in flexible employment were identified. Based on these factors, a simple qualitative questionnaire was constructed to feed values into a new method for the calculation of an index of coverage. The questionnaire consists of 15 questions focussed around eligibility criteria and value/duration of benefits.

10.1 Index design

The index can take any value from 0 (no coverage) to 100 (coverage is the same or better than that of regular employees). The questionnaire is compiled from a series of simple Yes/No questions as well as a numerical response questions where respondents are required to provide answers on a simple scale from either 0 to 5 or 1 to 5 in order to

represent the rough proportion of the population affected or the extent of a disadvantage. The Yes/No questions are primarily used to validate the responses of the numerical response questions to avoid input error and facilitate the completion of the questionnaire.

Questions focus on the main factors which cause reductions in equitable coverage without delving into them in detail. These are means testing, voluntary insurance, restrictive eligibility conditions, reduced benefit rates and reduced benefit durations. Rather than assess different schemes separately, in this approach the respondent should consider the scheme under which the majority of a given flexible employment type are covered (if there is coverage) and compare it with that which covers the majority of regular employees.

The method used to construct this index is the following. To start with each case is allocated a starting score of 100 (full coverage). Answers to each question are then assessed and effects implemented sequentially. Each time an answer indicates reduced eligibility or reduced benefits for a particular group of flexible workers then the index score is reduced. Additionally, questions are weighted differently depending on the relative effect they would have on the overall eligibility and the benefits themselves. For example, cases where flexible workers are required to take out voluntary insurance whilst regular employees are compulsorily insured has a large negative effect on the score compared to other conditions which may exclude smaller numbers of individuals of the given flexible employment type. Weights are applied by assuming specific proportions of the previous score are affected when reducing the index score in response to the answer.

So, for each question the score is affected in the following way:

$$\text{Score} = (\text{Weighted share of previous score} * \text{Answer} / 5) + \text{Remaining share of previous score}$$

or, in more detail:

$$I_n = I_{n-1} * W_n/5 * A_n/5 + I_{n-1} * (1 - W_n/5)$$

where:

- I_n = score after question n
- I_{n-1} = score after question n-1 (or 100 for question 1)
- W_n = weight of question n (1 to 5)
- A_n = answer to question n (1 to 5)

The final value of the index is then the value of the index after the last question, which cumulates the effects of each question. Importantly, because the effects are cumulated using a multiplicative approach, the final index result is independent of the question order - see example in

Table 7 where two questions with full weight (5=100%) and two with partial weight are given the same answers but in different orders but result in the same final index value.

Table 7 - Multiplicative approach means that the final index score is independent of question order

	Order 1			Order 2		
	Weight	Answer	Index score	Weight	Answer	Index score
Start score			100.0			100.0
Question 1	5	4	80.0	3	3	76.0
Question 2	3	3	60.8	4	3	51.7
Question 3	5	4	48.6	5	4	41.3
Question 4	4	3	33.1	5	4	33.1

The questionnaire is split into three main sections:

- Firstly, there are questions referring to regular workers and the social protection schemes which concern them. Regular employees = full-time employees with a reasonable working history - i.e. people that would normally qualify for social protection benefits paid on the basis of regular social contributions. Questions refer to a claim for benefits not affected by any previous claim and aim to identify cases of voluntary insurance and/or means-testing for regular employees. In both cases respondents are required to fill in the approximate proportion of regular employees affected using a scale from 0 or 5. In many cases these questions will not apply to any regular workers and "No" answers are expected but where applicable answers are used later on in the questionnaire to assess the relative disadvantages incurred by flexible workers.
- Secondly, there is a series of questions related to the eligibility of flexible workers to benefits. The first three issues mostly (but not only) affect self-employed workers who may not be covered in case of a particular risk, or are only covered if they make voluntary contributions, or are covered but only by the secondary, means-tested scheme. The final question about eligibility criteria that restrict access to benefits may apply to any type of flexible worker – often part-time employees working less than a certain number of hours per week are excluded because they are not compulsorily insured, the time-at-work criteria can be difficult to fulfil for temporary workers who may have to cope with periods of unemployment between contracts, etc. In this qualitative questionnaire it is not necessary to identify exact numbers of people affected but to estimate the proportion of the population of flexible workers affected on a simple scale 1-5.
 - Basic eligibility (Yes/No, and in case of the self-employed, the approximate proportion of the population covered, scale 1-5)
 - Whether or not participation is voluntary and, if yes, the approximate take-up (scale 1-5, which is then compared to regular employees when relevant)
 - Whether or not benefits are means-tested and the approximate proportion of workers affected (scale 1-5)
 - Whether or not there are eligibility criteria of any kind that make it more difficult for flexible workers to qualify for full benefits and, if so, the approximate proportion affected (scale 1-5)

- Finally, there is a series of questions related to the value of benefits received by flexible workers compared to regular employees. Questions relate to the level of daily benefits and the period for which they are payable, both of which can combine to disadvantage flexible workers.
 - Level of daily benefits – are they the same as for regular workers and, if not, what proportion of flexible workers receive reduced benefits (scale 1-5). Then, on a scale 1-5, what is the extent of the disadvantage incurred? For example, self-employed workers get benefits at a flat rate linked to the minimum wage whilst regular employees get wage-related benefits – here the disadvantage can be quite severe – only those self-employed on low incomes would receive benefits equivalent to their employed counterparts (i.e. those on the minimum wage) and all others would receive less.
 - Duration of benefits – do flexible workers qualify for the same period of benefit payments as regular workers and, if not, what is the extent of the difference (scale 1-5).

A detailed explanation of how the index is calculated is shown in the flow chart below (Figure 6), which shows the generalised method applicable to all types of employment. In practice, for self-employed workers only there is an additional question (1.1a) relating to the proportion of workers potentially having access to benefits – this is to take account of sectoral schemes (e.g. those for farmers or for craft workers) that may give coverage to some groups of self-employed but not others.

The full questionnaire, together with guidelines/examples for each question is included in Annex 8. An example page, for the self-employed, is shown below in Figure 7.

Figure 6 - Qualitative questionnaire - calculation method

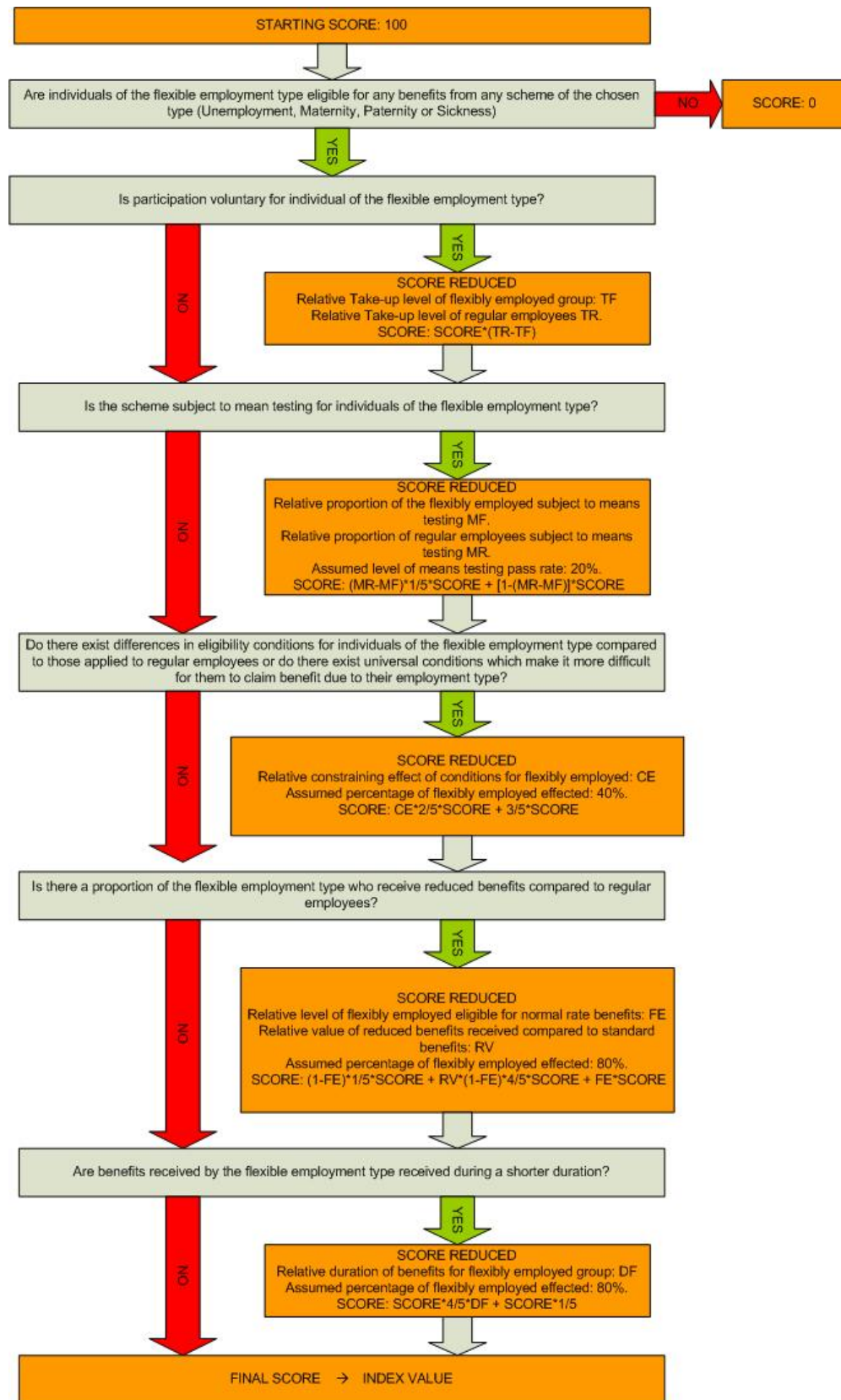


Figure 7 - Qualitative questionnaire (self-employed)

Country:
 Employment Type: Self-Employed

	Unemployment	Maternity	Paternity	Sickness
Regular Employees				
0.1	No	No	No	No
If "No" skip the next question				
0.2	5	5	5	5
0.3	No	No	No	No
If "No" skip the next question				
0.4	5	5	5	5
Self-Employed				
NOTE: When answering the following questions please consider the scheme which covers the largest proportion of self-employed and when comparisons are to be made with regular employees please consider the scheme that covers the largest proportion of regular employees.				
NOTE: Additional schemes for self-employed as well as fall back schemes may be considered if they are not covered under the main scheme for regular employees.				
NOTE: Minimum income / income suport schemes may be included as unemployment schemes if they are conditional on seeking employment.				
1 Eligibility				
1.1	Yes	Yes	Yes	Yes
If "No" Skip remainder of the questionnaire for the relevant benefit type.				
1.1a	5	5	5	5
1.2	No	No	No	No
If "No" skip the next question				
1.3	5	5	5	5
1.4	No	No	No	No
If "No" skip the next question				
1.5	5	5	5	5
1.6	No	No	No	No
If "No" skip the next question				
1.7	5	5	5	5
2 Amount and duration of benefits				
2.1	Yes	Yes	Yes	Yes
If "Yes" skip the remainder of this section.				
2.2	5	5	5	5
2.3	5	5	5	5
NOTE: In terms of the scale of reduced benefits compared to regular rate benefits.				
2.4	5	5	5	5
NOTE: In terms of the proportion the duration of benefits represent in terms of the duration of benefits for regular employees.				
Qualitative Indicator	100	100	100	100

11 IMPLEMENTATION AND EVALUATION OF THE QUALITATIVE INDICATOR

The qualitative questionnaire was completed for all countries, types of employment and types of benefit (unemployment, maternity, paternity and sickness) using the detailed descriptions of each benefit and the discrepancy table (Annex 3). The full set of completed questionnaires is included in Annex 9 with one Excel file for each type of employment (self-employed, part-time and temporary workers).

11.1 Qualitative vs quantitative index performance

The resulting index values for the social protection coverage were then compared with corresponding values for the weighted quantitative indicator (IND2). The absolute value of the qualitative index results is not critical, the main thing is to see if the results reflect the actual situation and show similarities/differences between countries and to see if any divergence from the quantitative indicator represents a better or worse representation of the situation.

Table 8 shows the final values of the qualitative and quantitative indicator for self-employed workers – the group which is most affected by poor social protection coverage and where there are most differences between countries.

Table 8 - Comparison of quantitative and qualitative indicator values: Self-employed

	Unemployment		Sickness		Maternity		Paternity	
	Quantitative (IND2SE)	Qualitative (Index)	Quantitative (IND2SE)	Qualitative (Index)	Quantitative (IND2SE)	Qualitative (Index)	Quantitative (IND2SE)	Qualitative (Index)
BE	25.0	10.4	75.0	57.1	75.0	46.2	25.0	0.0
BG	100.0	100.0	77.5	80.0	77.5	80.0		
CZ	100.0	100.0	77.5	80.0	77.5	80.0		
DK	100.0	84.0	75.0	73.9	88.9	73.9		
DE	25.0	10.4	77.5	80.0	60.0	54.4	100.0	100.0
EE	25.0	10.4	77.5	80.0	77.5	80.0	25.0	0.0
IE	50.0	20.0	50.0	20.0	96.3	88.0		
EL	25.0	10.4	42.6	40.0	43.8	10.4		
ES	25.0	10.4	77.5	80.0	100.0	100.0	100.0	100.0
FR	25.0	10.4	81.0	80.0	100.0	84.0	100.0	100.0
IT	25.0	10.4	25.0	0.0	100.0	100.0	25.0	0.0
CY	25.0	10.4	75.0	84.0	100.0	100.0		
LV	100.0	100.0	100.0	88.0	100.0	100.0		
LT	25.0	10.4	77.5	80.0	60.0	80.0	25.0	0.0
LU	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
HU	52.5	74.9	100.0	100.0	100.0	100.0	25.0	0.0
MT	50.0	20.0	100.0	100.0	100.0	100.0		
NL	25.0	10.4	77.5	80.0	100.0	100.0	25.0	0.0
AT	75.0	68.0	60.0	28.8	60.0	54.4		
PL	25.0	10.4	77.5	70.4	100.0	100.0		
PT	25.0	10.4	60.0	54.4	100.0	100.0	25.0	35.4
RO	77.5	80.0	100.0	100.0	100.0	100.0		
SI	77.5	80.0	77.5	80.0	77.5	80.0	100.0	100.0
SK	77.5	80.0	77.5	76.0	100.0	100.0		
FI	80.7	70.4	100.0	100.0	100.0	100.0	100.0	100.0
SE	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
UK	50.0	20.0	75.0	52.0	25.0	84.0	25.0	0.0

Graph 10.1 shows the values of each indicator plotted against each other, which helps to visualise cases where there is an important difference in the ranking of results. Note that the graph appears to show far fewer points than countries because of cases where both indicators have the same values for several countries. This can be seen in Table 9 and

the frequency of observations is also indicated by the labels on the graph - e.g. for 12 countries the quantitative value is 25 and the qualitative 10.4.

G10.1 Comparison of qualitative and quantitative indicator results: Self-employed / Unemployment

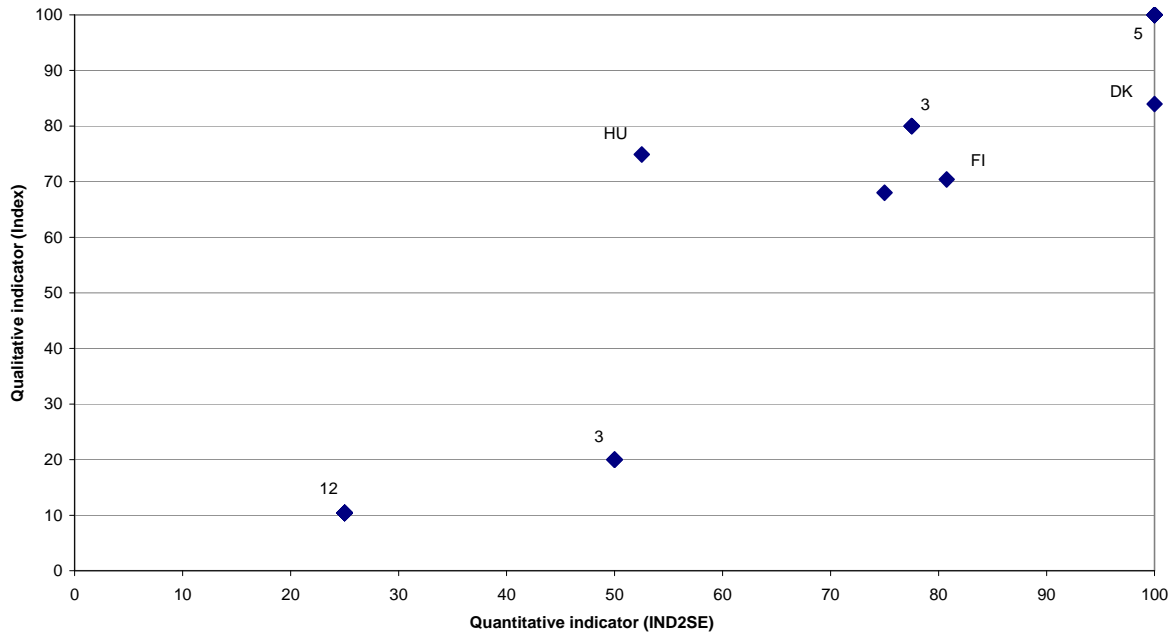


Table 9 - Comparative ranking of qualitative and quantitative index values: Self-employed

Unemployment			Sickness			Maternity		
Quantitative (IND2SE)	Qualitative	Frequency	Quantitative (IND2SE)	Qualitative	Frequency	Quantitative (IND2SE)	Qualitative	Frequency
25.0	10.4	12	25.0	0.0	1	25.0	84.0	1
50.0	20.0	3	42.6	40.0	1	43.8	10.4	1
52.5	74.9	1	50.0	20.0	1	60.0	54.4	2
75.0	68.0	1	60.0	28.8	1	60.0	80.0	1
77.5	80.0	3	60.0	54.4	1	75.0	46.2	1
80.7	70.4	1	75.0	52.0	1	77.5	80.0	4
100.0	84.0	1	75.0	57.1	1	88.9	73.9	1
100.0	100.0	5	75.0	73.9	1	96.3	88.0	1
			75.0	84.0	1	100.0	84.0	1
			77.5	70.4	1	100.0	100.0	14
			77.5	76.0	1		Total	27
			77.5	80.0	8			
			81.0	80.0	1			
			100.0	88.0	1			
			100.0	100.0	6			
			Total		27			

Bearing in mind the frequency of observations at different points, it can be seen that there are in fact few outliers or cases where the qualitative index gives different results (in terms of ranking order) from the quantitative index. The reasons for the discrepancies in ranking order for self-employed were assessed for each type of benefit (Table 10) and the general conclusion is that the qualitative indicator is more accommodating in taking into account reductions of benefits that are minor or affect only part of the population of flexible workers.

Table 10 - Assessment of discrepancies in qualitative vs quantitative indicator ranking: Self-employed workers

	Quantitative index (IND2SE)	Qualitative index	Reason for difference in rank
Unemployment			
DK	100.0	84.0	The difference results from the treatment of a small reduction in benefit duration for self-employed workers (additional waiting period). The disadvantage is small so in the quantitative indicator it is ignored since the effect would be significant (all remaining self-employed moved to next category). However, in the qualitative indicator the 1-5 scale allows small disadvantages to be recognised.
HU	52.8	74.9	Unemployment benefits for self-employed workers are paid at a fair income-related rate but subject to lower minimum and maximum amounts than regular workers. In the calculation of the quantitative index this affects all self-employed workers but in the qualitative index it is possible to take into account only part of the population since only those at the extremes of income are affected.
FI	80.7	70.4	The difference arises from the treatment of the more onerous time at work eligibility criterion for self-employed workers.
Sickness			
IE	50.0	20.0	The potential disadvantage of means testing for self-employed (i.e. some workers will receive no benefits) is better accounted for in the qualitative index. The quantitative index seems to understate the potential impact of means testing when benefits are paid at the same rate as non-means tested benefits.
AT	60.0	28.2	The main part of the difference relates to the treatment of reduced benefits for self-employed workers who get 60% of previous income (plus a small premium) compared to 100% of previous income for regular employees (for the first 4 weeks). This difference is treated as a considerable disadvantage in the qualitative indicator but in the quantitative indicator it simply moves self-employed to the category of reduced benefits which has the weight of 50%.
UK	75.0	52.0	Treatment of reduced benefits for self-employed - similar reason to Austria.
Maternity			
BE	75.0	46.2	Self-employed receive benefits through a separate scheme that is less favourable than that for regular employees. The difference is given greater weight in the qualitative index.
FR	100.0	84.0	Difference results from a small disadvantage in benefit duration (waiting period for self-employed) being taken into account in the qualitative index but ignored in the quantitative one to avoid overstating the impact (as DK unemployment)
UK	25.0	84.0	The difference results from the way reduced benefits paid through a secondary scheme are treated in the quantitative index. Benefits of the secondary scheme are only slightly less than those available through the primary scheme and the quantitative index tends to overstate this discrepancy because it assumes that all secondary benefits are means tested, which is not the case here. The qualitative index gives a better representation of the situation.

Results for the other types of worker (part-time and temporary employees) show a broadly similar pattern with only occasional deviations in the qualitative results compared to the quantitative results (see table T1 and all graphs in Annex 10). Where differences occur these largely result from the treatment of eligibility criteria that may make it difficult for flexible workers to qualify for benefits or minor disadvantages in terms of the amount or duration of benefits that are ignored in the quantitative indicator but taken into account in the qualitative indicator. For example:

- Sickness benefits for some temporary workers in Bulgaria are limited to a maximum of 75 days if the sickness continues beyond the planned contract termination date. The quantitative indicator treats reductions in benefits (amount or duration) as an all or nothing shift of the eligible population from one category to the next and since this restriction only affects certain types of contract for some groups of temporary workers it is ignored so that the quantitative indicator (IND2TE) gives a full coverage result (value of 100). On the other hand, using the qualitative indicator this potential disadvantage for some workers can be taken into account – score 4/5 for question 2.4, which has a weight of 4/5 giving a final result of 84.
- Unemployment benefits in Latvia require people to have been employed for 12 months in the last 18. For temporary workers the quantitative questionnaire assumes that persons requiring more than two contracts of the same duration in order to meet the time-at-work duration could have difficulty to meet the condition. In Latvia more than half of temporary workers are estimated (from LFS data) to have a contract of less than 6 months so that the indicator gives a relatively low coverage result (59). In the qualitative questionnaire the condition is recognised as potentially difficult for temporary workers to meet, but not so hard (score 3/5), and because this question also only a partial weight (3/5) the final result is higher (76).

All in all, the comparison of qualitative and quantitative results indicates that the qualitative indicator produces results that are broadly in line with results from the quantitative indicator. When differences occur, these tend to reflect the fact that the qualitative indicator offers more flexibility with the disadvantages scaled (1-5) whilst the quantitative indicator imposes an all or nothing shift to the next population (e.g. from FEOK to FER) which will have a weight of .25 less than the previous population. The flexibility of the qualitative indicator has some advantages but the big drawback is that scaled answers are necessarily subjective. Values may, therefore be difficult to reproduce between when different people compile the results.

11.2 Qualitative index results by benefit type

Graphs 10.17 below (from Annex 10) shows the qualitative index results indicating the coverage of unemployment benefits for each type of flexible employment and an average for all flexible workers. Compared to the quantitative results (Graph 3.2 earlier), there are some obvious differences:

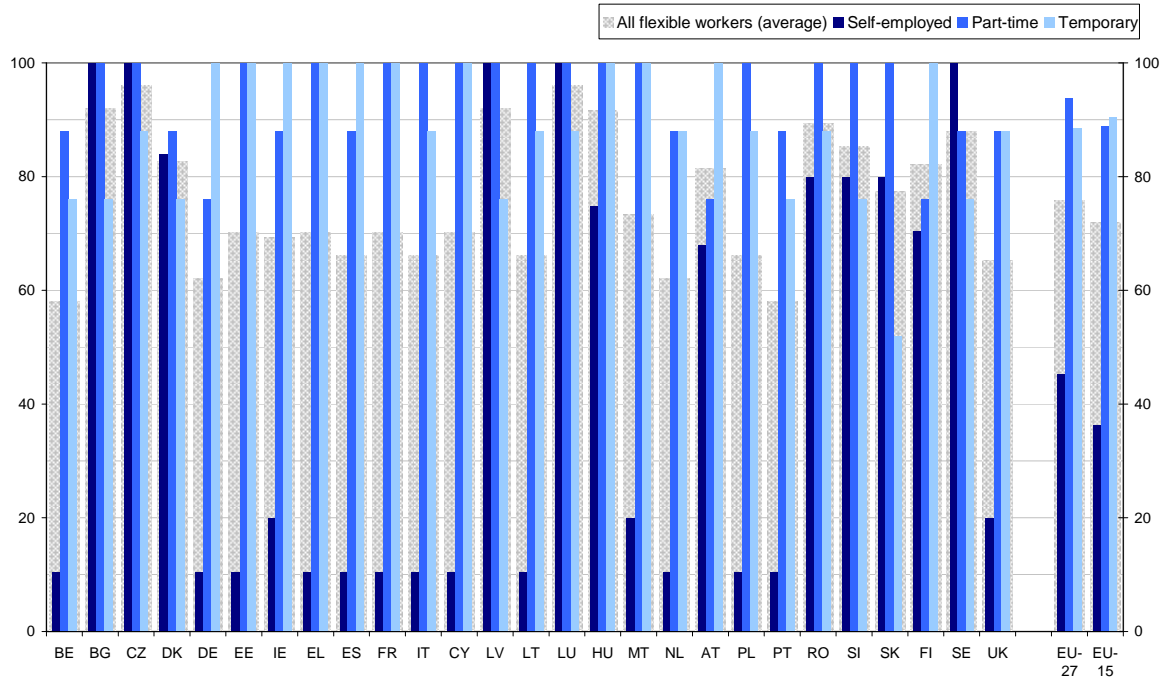
- The common low figure for self-employed is lower (10.4 vs 25) and therefore stands out more. Both figures derive from artefacts of the calculations in the case that self-employed workers are excluded from primary unemployment benefits and may only receive the lower secondary benefits or minimum subsistence benefits after means-

testing. In the quantitative index this puts all self-employed in the population FERM with weight 0.25. In the qualitative indicator, the impact of means-testing in question 1.5 brings the score down from 100 to 20 and lower benefits reported in question 2.3 then reduces it further. It might be worthwhile reducing the impact of means-testing in the qualitative questionnaire by reducing the weight of the question. However, no information has so far been found to quantify the impact – even if there are statistics on the numbers of benefit claims rejected because of adequate means, the reality is that most people in this situation would know in advance that they were unlikely to qualify for benefits and therefore do not bother to make a claim.

- There are some important differences in the figures for all flexible workers. This is because the qualitative measure is just an average of the figures for each type of worker whilst the quantitative figures are effectively weighted by the relative importance of each type of employment. Hence, for example, the overall figure in Greece is low in the quantitative results due to the high numbers of self-employed workers who have poor coverage, whilst the qualitative result reflects the good coverage of part-time and temporary workers. The weighted figure of the quantitative index is surely more representative.
- Qualitative values for EU aggregates are averages of the index values for each country whilst the quantitative equivalents are index values calculated from aggregates of each different category of worker according to their benefit eligibility (FE, FEM, FER, FERM). The overall effect is that the coverage of temporary workers falls relative to the other types of flexible worker.

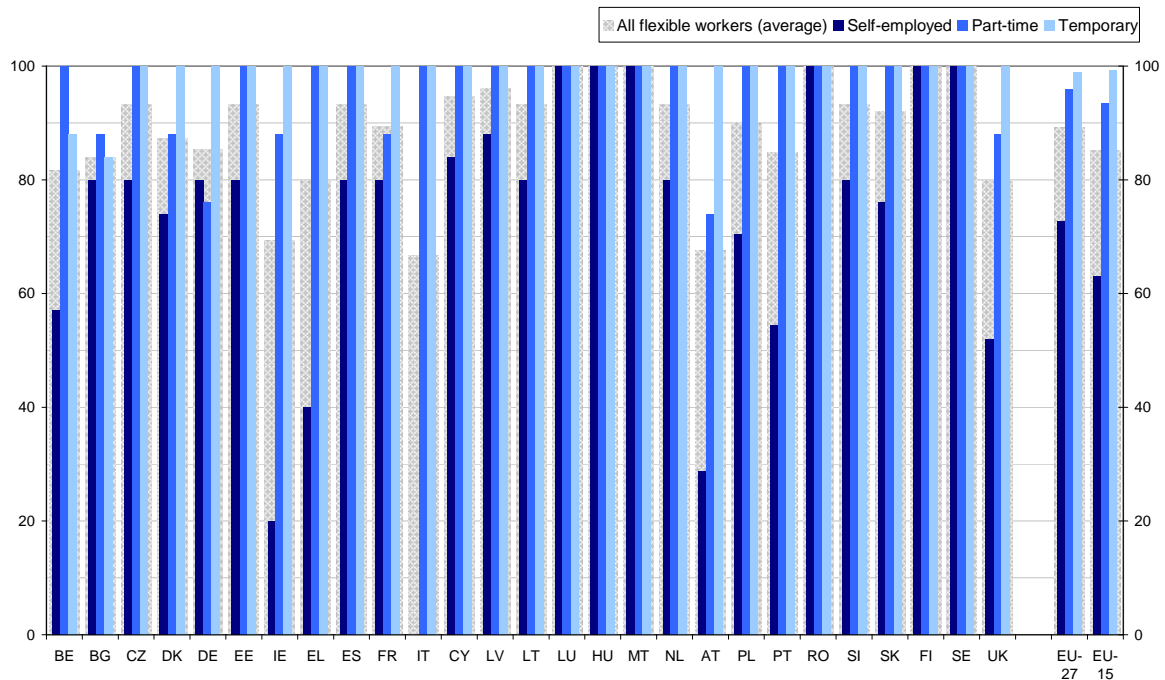
	Qualitative	Quantitative (IND2)
Self-employed	45.3	38.1
Part-time employees	93.8	85.6
Temporary employees	88.4	89.8
All flexible workers	75.8	70.6

G10.17 Coverage of social protection benefits for flexible workers, 2007 (Qualitative index): Unemployment benefits

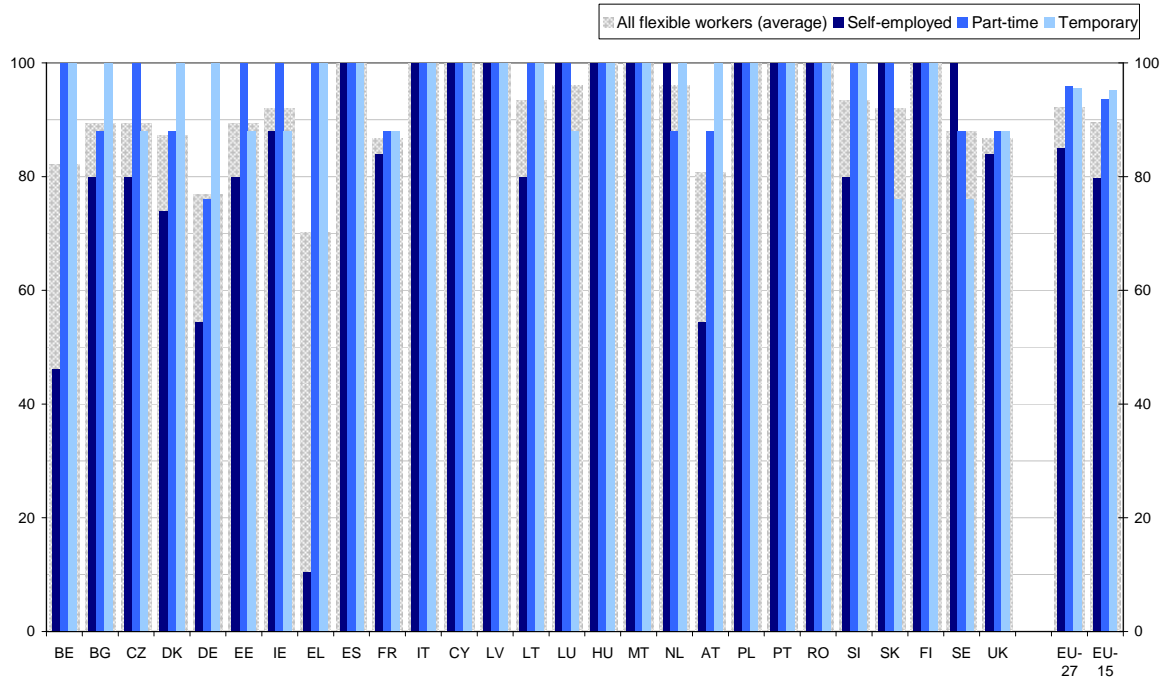


Graphs 10.18 to 10.20 below (see also Annex 10) show the qualitative results for sickness, maternity and paternity benefits respectively.

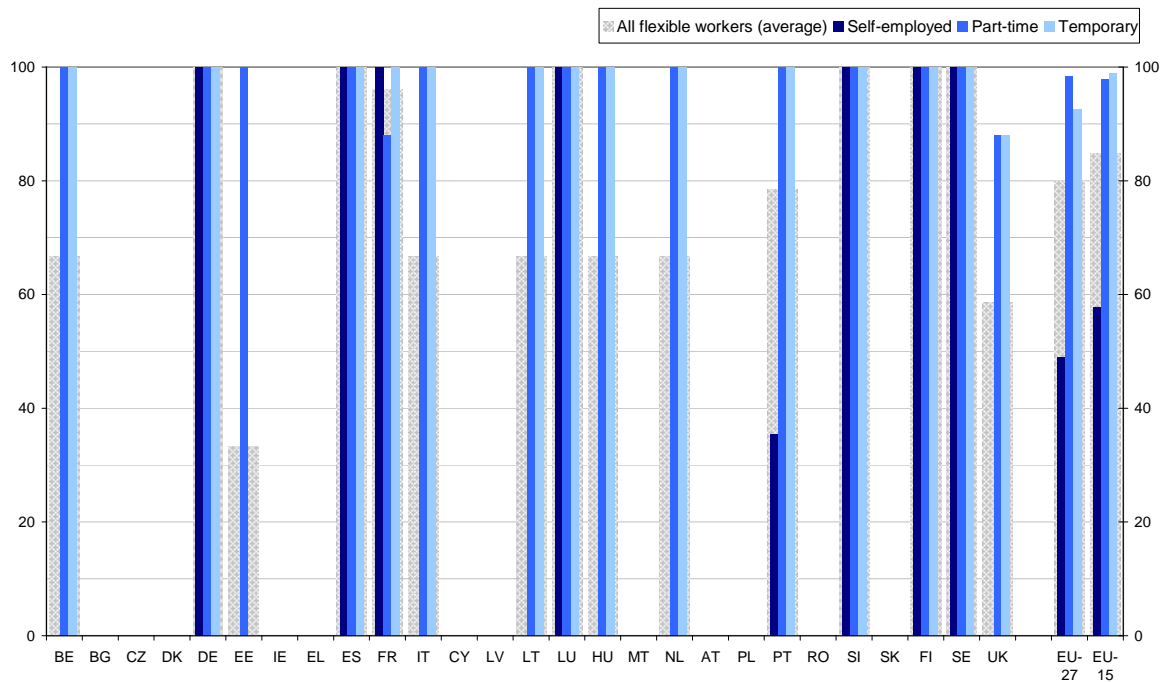
G10.18 Coverage of social protection benefits for flexible workers, 2007 (Qualitative index): Sickness benefits



G10.19 Coverage of social protection benefits for flexible workers, 2007 (Qualitative index): Maternity benefits



G10.20 Coverage of social protection benefits for flexible workers, 2007 (Qualitative index): Paternity benefits



11.3 Assessment of the qualitative indicator

The quantitative indicator seems to be a good quality indicator but is onerous to produce so a simpler, qualitative alternative was considered. Some advantages and disadvantages of the qualitative indicator are listed below. Overall, it has to be concluded that the quantitative indicator is much more suitable for monitoring purposes.

Advantages of the qualitative indicator

- Reduced data requirements. Only qualitative data describing benefits required, plus some rough ideas of workers affected by some conditions. Quantitative indicator requires detailed LFS data as well.
- Easy to complete. All questions require simple answer of Yes/No or scale 1-5. Quantitative indicator requires calculation of numbers affected by each condition.
- Flexible design. Each question in the questionnaire can be weighted so that it has full or reduced impact on the index. Weights can be changed at any time. Calculation of the quantitative indicator is based around estimates of the actual number of workers affected at each point and does not have this flexibility, though weights affecting the final numbers could be adjusted.
- Better representation of partial disadvantage. The qualitative indicator requires disadvantages in the value of benefits (amount or duration) to be scaled 1-5 so that small or severe reductions can be appropriately taken into account. The quantitative indicator has no facility for distinguishing the level of disadvantage and treats minor issues equally with major ones.

Disadvantages of the qualitative indicator

- Subjective assessment. Results may be difficult to reproduce when compiled by different people and through time. This is particularly true if indicators are compiled in isolation (e.g. by individual countries) rather than by a single team that can compare and contrast different circumstances and the appropriate level of disadvantage.
- Scale 1-5 is less representative than actual numbers (where good data are available).
- Multiplicative approach can overemphasise problems when two minor disadvantages are combined.
- Does not deal with real numbers of workers so cannot produce weighted results. Aggregates using the qualitative indicator – either for all flexible workers within a country or for different groups across countries - are unweighted averages of index values so that a poor result for an important group of workers can be partially masked by good results for less important groups.
- Breakdowns by sex and age are not practical. The qualitative indicator measures coverage only in relation to a particular employment situation and although results could, in theory, be calculated separately by gender/age the results would be no different because there are very few cases where these influence access to benefits.

12 CONCLUSIONS AND RECOMMENDATIONS

12.1 Conclusions

The main aim of the current project was to develop previous work on indicators to measure the social protection coverage of workers in flexible employment by extending the coverage of the analysis (all EU-27 countries, additional types of benefit), to review results and assess whether the indicators are practical and relevant for ongoing monitoring within the context of flexicurity policy.

The previous study proposed a set of quantitative indicators that start with data on the numbers of workers in each flexible employment situation (self-employed, part-time and temporary employees) and then reduces this (in case of less than full coverage) by estimates of the numbers affected by reduced access to benefits or reduced value of benefits (amount or duration). IND1 measures full coverage – i.e. the share of workers for whom coverage is on a par with regular workers. IND2 gives a weighted coverage by adding in groups of workers who are covered but less favourably than regular workers due to reduced value of benefits (amount or duration) and/or benefits subject to means testing.

Calculation of the indicator requires two sets of information – detailed qualitative information describing each of the benefit schemes that may be available to workers of any type, and detailed quantitative data giving the numbers of workers in different employment situations, including detailed breakdowns (e.g. part-time workers by hours worked, temporary workers by duration of contract).

The required quantitative information is available from the LFS but not always with the level of detail required so that estimates have to be made. For example, in the case that employees working below 17 hours per week are not covered by a benefit then it is necessary to estimate the numbers using the sum of those working 0-9 hours and 10-14 hours plus part of those working 15-19 hours.

The qualitative information needed is not straightforward to compile. Although detailed information on the regulations governing access to benefits and the amount/duration of benefits are readily available for regular employees, details of special conditions for those in atypical forms of employment are often not so easy to find. Even when national experts were consulted the information provided was sometimes not sufficiently detailed to give a clear picture as to how flexible workers might be affected in terms of access to benefits. As a consequence, in cases where the information is insufficiently detailed, there is some degree of subjectivity in the interpretation of benefit regulations, which reduces the reliability of results when deriving a quantitative measure of coverage. However, when the qualitative information is sufficiently complete this subjectivity is largely eliminated with the only subjective decision being when it is appropriate to ignore very minor disadvantages for flexible workers.

The current study leaves a comprehensive database of the qualitative information that can be used as the starting point for any future collection and it should be possible to

progressively improve the quality of that material so that the problem of working on the basis of incomplete information should not be of major concern in future.

Overall, the quantitative indicators fulfil the quality criteria expected for monitoring by EMCO/SPC in that they are based on reliable quantitative data (LFS) that is considered comparable between countries. It is recommended that the quantitative indicator be considered for routine monitoring.

Nevertheless, it remains the case that the process of updating the qualitative information, preparing the necessary LFS data and calculating values for the quantitative indicators is onerous and demands expert knowledge. For monitoring purposes this represents a significant burden and it is recommended that the indicators are not updated annually but maybe every other year.

In light of the burden imposed by the quantitative indicator, a simpler alternative indicator, based only on qualitative information and rough estimates of the proportion of different groups of workers affected, was explored. The new qualitative indicator is based on a questionnaire consisting of 15 questions focussed around eligibility criteria and value/duration of benefits, each requiring simple scaled answers (1 to 5). Starting from a score of 100 (= full coverage), each question that shows some disadvantage for flexible workers reduces the score to a minimum of zero (=no coverage). Each question can be weighted to give full or reduced impact with the results applied multiplicatively so that the final result is independent of question order.

The results of the qualitative indicator were compared to the quantitative indicator and broadly similar results in terms of how countries were ranked. Where noticeable differences occurred, this was largely due to the greater flexibility of the qualitative indicator in distinguishing minor disadvantages. The greater flexibility to take account of different degrees of disadvantage has some attraction but at the same time gives rise to concerns about the reliability and reproducibility of indicator values because ranking answers between 1 and 5 demands a subjective assessment. The qualitative indicator is therefore not recommended for monitoring purposes.

12.2 Recommendations

- The quantitative indicators should be considered for monitoring purposes. The weighted indicator (IND2), which takes account of workers with partial coverage, is preferred to the full coverage indicator (IND1) but both are interesting.
- Indicator results should be interpreted as an indication of the proportion of flexible workers that have equal access to the benefits available to regular workers and do not measure the quality of benefits provided. The full coverage indicator (IND1) gives the proportion covered as a percentage but the weighted indicator (IND2) has to be treated as an indicative index value and not as percentage.
- Indicators can be presented for each type of flexible employment or as an aggregate but it is recommended that indicators are presented separately for each type of

benefit. Breakdowns by age and sex can show how the structure of employment in that group leads to more or less problems with access to benefits.

- Indicator values should be considered alongside basic data on the numbers of people working in flexible employment, including breakdowns by gender and by age. Low coverage indicator values combined with high importance of a particular employment type should then be considered as most problematic.
- The compilation of information describing the regulations for each benefit and the interpretation of how these impact on the different groups of flexible workers is critical to the quality of results but is onerous and demands expert knowledge. Although the present study leaves a database which can be the starting point for future collections, a significant input will be needed each time to complete and verify the information. It is recommended, therefore, that monitoring be every other year rather than annually.
- Information on the take-up of voluntary insurance against different risks, and the extent to which this may cause reduced coverage for flexible workers is not readily available and warrants further research.
- Information on the characteristics of temporary work – the duration of successive contracts and the duration of spells between contracts – is also difficult and warrants further work. Improved information would be an important basis for improving the method for determining how the time-at-work condition for access to benefits should be handled for temporary workers.