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Synthesis Quality Report
Adult Education Survey

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1 Introduction

The present document is a synthesis report on the evaluation of the first Adult Education Survey (AES). It provides valuable information on the implementation of the survey at national level and presents an assessment of the data quality.

The AES was carried out in the period 2005 – 2008 in almost all EU Member States, except for Ireland and Luxembourg, and also in Norway, Switzerland and the two EU Candidate countries (Croatia and Turkey). At European level, it was the first implementation of the survey while some countries had again carried out the survey in the past at national level. A model questionnaire and a classification of activities were proposed in order to facilitate the implementation of the survey and ensure the production of qualitative statistics. Additionally, the data validation was made using standardised tools and a standard template was used for the quality reporting at national level.

The report is organised in four chapters. Following the Introduction, Chapter 2 presents the policy background information on which the planning and design of the AES was based. Chapter 3 presents the quality assessment of the pilot AES in terms of the five ESS quality dimensions. In the assessment of coherence we also include a comparison study with the LFS ad-hoc module on Life Long Learning, carried out in 2003. This study was prepared by Eurostat and it is incorporated here to complement the quality assessment of the AES. Chapter 4 summarises the problems encountered in the implementation of the pilot AES and provides data comparisons for certain AES variables. Finally, Chapter 5 presents the recommendations for the next round of the AES.

2 Policy framework of the AES

Lifelong learning holds a high profile in the Lisbon strategy and more precisely in the "Education and Training 2010" work programme. The following phrases are associated with this programme:

"*In a knowledge society individuals must update and complement their knowledge, competencies and skills throughout life to maximise their personal development and to maintain and improve their position in the labour market."*

"By 2010, the European Union average level of participation in Lifelong Learning, should be at least 12.5% of the adult working age population (25-64 age group)."

Since 2000, the European Commission and the European Council has produced a series of policy documents related to 'Lifelong Learning'. Among these documents the most important was the European Commission Communication "*Making a European area of lifelong learning a reality*" released in November 2001. This Communication stressed the importance of lifelong learning for satisfying the following objectives:

- personal fulfillment
- active citizenship
- social inclusion
- employability/adaptability.

Additionally, the Commission staff working paper complementing the Communication, entitled "Lifelong Learning Practice and Indicators" (SEC(2001)1939, 28.11.2001) proposed the Adult Education Survey as a source that would improve the information or fill information gaps for fulfilling the above broad objectives.

In June 2003, the Task Force on Adult Education Survey prepared a paper whose purpose was to define the policy framework and the related information needs of the Adult Education Survey. Its structure is based on the Commission Communication on lifelong learning, putting the learner in the centre of the learning process and proposed the following priorities for action:

(1) Valuing learning: it refers to the process of recognising participation in and outcomes of (formal, non-formal or informal) learning so as to raise awareness of its intrinsic worth and to reward learning. Focus is on the identification, assessment and recognition of non-formal and informal learning as well as on the transfer and mutual recognition of formal certificates and diplomas.
(2) Information, guidance and counseling: by means of facilitating access to learning through the availability of quality guidance services.
(3) Investing time and money in learning: by means of ensuring sufficient investment in education and training. This can be achieved by continuing public funding for the adult and higher education sectors along with an increasing private investment.

(4) Bringing learning and learners closer together: this can be achieved by developing learning communities, cities and regions, local learning centres and enabling workplaces to become learning organisations.
(5) Basic skills: improving basic skills (reading, writing and mathematics, IT and language skills, as well as social skills) will allow people and especially the early-school leavers to engage in further learning as a basis for personal fulfilment, active citizenship and employability.
(6) Innovative pedagogy: addresses the shift in emphasis from knowledge acquisition to competence development and the new roles for teachers and learners that this implies.

Policy needs for statistical information about adult education

This section refers to the policy requests about adult education of adult education (AE). The outcome is a list of policy relevant indicators that can be obtained from the individual through a dedicated, harmonised, household-based lifelong learning survey such as the Adult Education Survey.

In the specific paragraph on indicators the Commission Communication stresses:

"*Comparable information and statistical measures are essential to the development and implementation of coherent and comprehensive lifelong learning strategies. Statistics and indicators already form an essential part of existing initiatives in the field of lifelong learning with a view to monitoring progress both in achieving identified targets and in implementing policy objectives*",

and that:

"*The development of a limited number of new indicators will be based on the learner-centred approach in relation to formal, non-formal and informal learning. In particular, this work will aim to fill the gaps on several aspects of lifelong learning, by proposing quantitative information collections directly from learners. It will also promote the development of qualitative information sources, in particular in the fields of assessment and recognition; information, guidance and counseling; and training of teachers and trainers. This work will complement the development of indicators on lifelong learning related to employability, adaptability and social inclusion, in the context of the European Employment Strategy and the European Social Agenda*".

Adult Education (AE) policy indicators

A survey on AE may provide information on various indicators that could be used to develop relevant policies. We present below a list of indicators grouped under each of the six priority areas for action:

- Valuing learning: The relevant needs for statistical information about AE are related to respondent's participation in formal and non-formal learning activities, the recognition of learning, his attitude towards learning as well as obstacles in participation. An indicative list of the following indicators can be obtained:

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Participation in formal/non-formal learning activities by provider and field of learning, by training setting (during and outside working hours), by reasons for participation (job-related, non-job related)
Courses started and successfully completed by field, reasons for dropping out, certification of education and training by type of learning, opinion on usefulness of learning
Benefits of learning
Obstacles in participation (reasons for non participation)

- Information, guidance and counseling: The needs for statistical information about AE are related to respondent's awareness of learning provision, sources of information, benefits from counseling and guidance and level of satisfaction with guidance offered. An indicative list of indicators can be the following:

Source of information and guidance (learning centres, governmental, employer etc) by frequency of use, by benefits obtained and by level of satisfaction
Reason for using guidance/counseling services

- Investing time and money in learning: The relevant needs for statistical information are related to volume and intensity in different types of learning (formal, non-formal, informal), financing of learning, time spent in education and training, outcomes of learning as well as participation in learning in another country. An indicative list of indicators is the following:

Volume of participation (time spent in learning) by type of learning activity (formal, non-formal and informal learning), by time of training (during working time, during leisure time)
Source of financing (learner, government, employer etc)
Outcomes of learning by type of learners (participants and non-participants)
Participation in cultural/social activities by type of activity, by subject area, by volume of activity, by type of provider
Participation in learning in another country by country involved, by outcomes (level of satisfaction, number of foreign certificates obtained)

- Bringing learning and learners closer together: the relevant needs for statistical information are related to respondent's access to education and training, citizenship, equal opportunities, social cohesion and self fulfillment as well as level of satisfaction on the quality of provisions and of educators. An indicative list of indicators would be the following:

Access to information about learning possibilities by knowledge of learning possibilities, by provision of financial support, by time of training (during working or leisure hours)
Access to the acquisition of general and civic skills for the less privileged
Level of satisfaction on the quality of learning provision by diversification of supply and by effectiveness of teaching

- Basic skills (key competences): the relevant needs for statistical information are related to respondent's literacy, numeracy and foreign language skills, ICT skills, cultural awareness, career management skills, interpersonal and social skills, entrepreneurship, science and technology as well as skills acquired at the workplace or in social/cultural environment. An indicative of policy relevant indicators can be the following:

Self perceived level of basic skills by type of skill (literacy, numeracy, foreign language, ICT use etc)
Self perceived level of management, interpersonal and social skills
Use of acquired skills by type of setting (at the workplace or in social/cultural environment)

- Innovative pedagogy: The related information needs are respondent's learning preferences and learning strategies. An indicative list of indicators is the following:

Participation in learning activities by type of learning preferences (theory/practice, taught/non-taught, alone/in groups etc)
Participation in learning activities by type of learning strategies (memorization and relating material to what is already known, learning by doing, listening, audio/video/computer assisted learning)

3 Quality assessment of the pilot AES

This chapter presents the quality assessment of the pilot AES based on the national quality reports submitted to Eurostat. It provides an evaluation of the quality of AES and highlights the main strengths and weaknesses of the survey.

The assessment is based on 23 quality reports received by the following countries: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Germany, Estonia, Greece, Spain, Finland, France, Croatia, Hungary, Italy, Lithuania, Latvia, Netherlands, Norway, Poland, Sweden, Slovenia, Slovakia and the United Kingdom.

3.1 Relevance

The first AES was a pilot survey covering a number of variables related to different types of learning of adults across Europe. Lifelong learning is considered to be an interesting subject at both European and national level. One of its main objectives is to provide valuable input for the evaluation of the current status and the further development of national policies in this field. In addition, AES data are useful for the planning of research projects that could strengthen adult learning.

The AES in all the participating countries focused on the following parameters:

- Participation in different types of learning (formal/non-formal/informal learning), including breakdown by field of learning
- Non-participation and obstacles to participation in training
- Share of the job related non-formal education and training
- Volume of instruction hours spent on formal/non-formal learning
- Employer financing and costs of learning in formal/non-formal education
- Module on language and ICT skills of the population
- Module on social and cultural participation of the population

All variables included in the AES manual were used with the exception of a few countries that omitted the questions on participation in political and religious activities. In some cases, there were also additional questions of interest at national level.

The main domains for which countries estimated parameters were sex, age groups, main current labour status and highest level of education completed. Some countries also included other domains, like the degree of urbanisation, the region, the occupation, the breakdown into national/non-nationals and the parental educational level.

With reference to the users of AES data we distinguish three classes, as it is shown in Table 3-1.

Table 3-1. Users of AES data

Classification of user	Description of user
European level	The European Parliament, Council and Commission
Multi-national organisations	OECD, ILO, IMF, UN
National level	National Government, Ministries of Education, Employment, Economics and National Institutions
	Employers associations, trade unions, social partners
	Media of all kinds
	Universities, researchers and students

Countries reported that the guidelines proposed in the AES manual were thoroughly discussed with the main users aiming at the development of a high quality questionnaire at national level. With reference to the variables covered in the questionnaire, users expressed their interest in better estimation of the number of persons participating in educational activities, the average time spent on these activities as well as the reasons for not participating.

No user satisfaction survey was carried out, and thus, there is no information on this aspect. Most countries perceive that at this time there is no sufficient feedback received by users. Therefore, their plans for improving / changing the survey are only limited to minor changes in the implementation. However, it is mentioned that the comparability of collection procedures over time should be considered.

3.2 Accuracy

In the pilot AES countries used different sampling designs. The most common method was a two or three stage stratified sampling. The following designs were reported:

- Simple random sampling (*Latvia and Slovakia*)
- Stratified random sampling (*Austria, Belgium, Cyprus, Estonia, Finland, Hungary, Sweden and the United Kingdom*)
- Multi-stage stratified sampling (*Bulgaria, Croatia, Czech Republic, France, Germany, Greece, Italy, Latvia, Netherlands, Norway, Poland, Slovenia and Spain*)

We also mention that in four countries (France, Greece, Hungary and the Netherlands) the selection of the sample was made within the national LFS following the procedure implemented for that survey.

The variables used for the stratification of the population were mainly age, sex, region and degree of urbanisation. The sampling units were either the individuals or the households / dwellings in random sampling and in cases of multi-stage designs the households were used as primary sampling units in which the selection of individuals was randomly made.

The target population for the AES was all individuals aged 25 to 64 years old who were permanent residents in the country and lived in private households. Some countries also covered additional age groups for their national AES. These countries were Estonia (20 to 64), Finland (18 to 64), France (15 to 64, 15 to 24 having completed their initial education), Germany (19 to 80) and Norway (22 to 66).

Table 5-1 in the Appendix of this document presents the target population (expressed in number of individuals) in each country broken down in three age groups, where available.

3.2.1 Sampling Errors

Table 3-2 presents the estimates and confidence limits for participation rates in formal, non-formal and informal education. The calculations of intervals presented in the table are made on the basis of the AES microdata provided to Eurostat (assumption simple random sample) and are therefore not taken from the quality reports.

Overall, participation rates in 'Formal Education' activities are low, starting from 2.3% in Greece and reaching 15% in the United Kingdom on average. Participation rates reported in 'Non-Formal Education' are larger than those reported for 'Formal Education' in all countries. High participation rates are also reported in 'Informal Education'. With regard to the confidence intervals of the estimates, we notice that in most countries the standard deviation for the estimates of 'Formal Education' is below 1 showing that the figures provided are accurate enough. Standard deviations are somehow larger for the estimates of the other two types, indicating more uncertainty in the estimated figures. The greatest standard deviations have been reported by Latvia, Norway and the United Kingdom.

Table 3-2. Confidence Intervals[1] for participation in the three types of learning in the pilot AES

Country	Participation rate (%)		
	Formal education	Non-Formal education	Informal education
Austria	4.2 ± 0.6	39.4 ± 1.4	75.7 ± 1.2
Belgium	12.5 ± 0.9	33.5 ± 1.3	34.9 ± 1.3
Bulgaria	2.7 ± 0.4	35.2 ± 1.3	28.0 ± 1.2
Croatia	4.5 ± 0.7	18.4 ± 1.4	44.6 ± 1.8
Cyprus	2.9 ± 0.5	39.5 ± 1.4	63.6 ± 1.4
Czech Republic	3.9 ± 0.4	35.3 ± 1.0	54.7 ± 1.0
Estonia	5.0 ± 0.7	40.2 ± 1.6	44.8 ± 1.6
Finland	10.2 ± 0.9	51.2 ± 1.5	54.6 ± 1.5
France	1.7 ± 0.2	34.1 ± 0.7	63.8 ± 0.8
Germany	5.2 ± 0.5	43.1 ± 1.2	52.4 ± 1.2
Greece	2.3 ± 0.4	12.7 ± 0.8	20.7 ± 1.0

Country	Participation rate (%)		
	Formal education	Non-Formal education	Informal education
Hungary	2.5 ± 0.4	6.8 ± 0.6	26.2 ± 1.0
Italy	4.4 ± 0.2	20.2 ± 0.5	41.2 ± 0.6
Latvia	5.4 ± 0.9	30.7 ± 1.9	53.9 ± 2.0
Lithuania	6.3 ± 0.8	30.9 ± 1.5	45.3 ± 1.6
Netherlands	6.8 ± 0.9	42.1 ± 1.7	_ [2]
Norway	9.9 ± 1.1	50.6 ± 1.8	72.3 ± 1.6
Poland	5.5 ± 0.3	18.6 ± 0.5	25.4 ± 0.5
Slovakia	6.1 ± 0.7	41.2 ± 1.4	84.1 ± 1.0
Slovenia	8.7 ± 0.9	36.1 ± 1.6	62.0 ± 1.5
Spain	5.9 ± 0.4	27.2 ± 0.7	28.0 ± 0.7
Sweden	12.7 ± 1.1	69.4 ± 1.5	76.0 ± 1.4
United Kingdom	15.1 ± 1.2	40.3 ± 1.6	53.7 ± 1.6

1. 95% confidence intervals.
2. The Netherlands used new variables for informal learning, which were totally different from those suggested in the Model Questionnaire

Another indicator of sampling errors is the coefficient of variation (CV). This is defined as the ratio of the sampling variance of an estimate to its mean.

CV= (Square root of the estimate of the sampling variance) / (Estimated value)

The higher the CV, the greater is the variance of the estimate resulting in high sampling errors. We present below the estimates and the respective CVs for two variables in the AES: *"Average amount paid by a participant for all the expenses related to Formal and Non-Formal education activities"* and *"Average number of hours that were spent by a participant in all activities of Formal and Non-Formal education".*

Table 3-3 presents the estimated values of the *"Average amount paid by a participant for all the expenses related to Formal and Non-Formal education activities"*. For each estimate the coefficient of variation is also provided. Coefficients of variation are also graphically displayed in Figure 3-1. In most countries CVs are quite small (less than 1) indicating that the variance of estimated values is low. Notable exceptions are Latvia, Belgium, Finland, Slovenia and Spain where CVs are high for both types of learning.

Table 3-3. Average amount paid for all expenses related to all formal / non-formal education activities – Estimates and Coefficients of Variation

Country	Formal Education Activities		Non-Formal Education Activities	
	Estimated Value	Coefficient of variation	Estimated Value	Coefficient of variation
Austria	1416.54	0.11	251.73	0.08
Belgium	431.00	5.69	553.00	2.75
Bulgaria	461.86	0.09	19.19	0.12
Croatia	6727.81	1.00	4643.36	1.86
Cyprus	3313.70	0.12	169.90	0.09
Czech Republic				
Estonia	8661.00	0.12	598.00	0.10
Finland	150.78	3.86	65.72	4.22
France				
Germany				
Greece	977.14	0.25	200.90	0.13
Hungary	431.21	0.16	112.82	0.14
Italy				
Latvia	24.55	18.82	58.11	14.88
Lithuania	684.04	0.06	191.35	0.30
Netherlands	1001.00	0.61	672.00	1.09
Norway[1]	1130.00	0.12	189.00	0.14
Poland	3138.95	0.03	1433.25	0.05
Slovakia				
Slovenia	1014.64	5.81	123.51	10.30
Spain	1036.11	5.67	558.19	4.78
Sweden	398.00	0.15	86.00	0.12
United Kingdom	2318.35		97.12	

1. Some respondents have reported particularly high expenses. Such outliers are likely to affect the estimated averages. For cross-national comparisons the median is thus probably preferable.

Figure 3-1 Average amount paid for all expenses related to all formal / non-formal education activities - Coefficients of variation

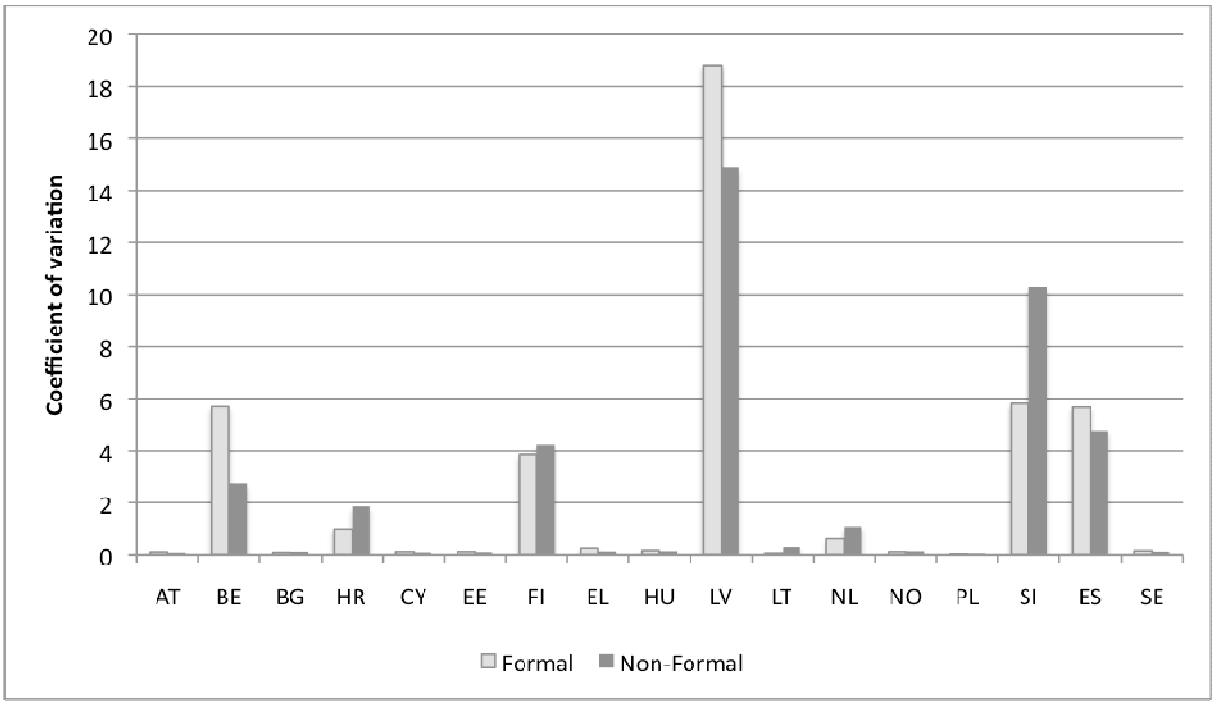

Table 3-4 and Figure 3-2 present coefficients of variation for the variable *"Average number of hours that were spent by a participant in all activities of Formal and Non-Formal education"*. Conclusions are very similar to those drawn for the previous variable. Overall coefficients of variation are small, with the exceptions of Latvia, Belgium, Slovenia and Spain.

Table 3-4. Average number of hours spent in all formal / non-formal education activities - Estimates and Coefficients of Variation

Country	Formal Education Activities		Non-Formal Education Activities	
	Estimated Value	Coefficient of variation	Estimated Value	Coefficient of variation
Austria	446.71	0.09	83.91	0.03
Belgium	230.00	4.98	114.00	3.83
Bulgaria	582.85	0.05	44.17	0.07
Croatia	251.87	0.93	106.90	1.79
Cyprus	480.90	0.11	56.10	0.04
Czech Republic	380.00	0.09	49.00	0.04
Estonia	443.00	0.08	47.00	0.05
Finland	362.67	1.21	85.82	2.01
France			103.00	
Germany				
Greece	278.36	0.11	82.94	0.08
Hungary	486.82	0.13	110.25	0.09

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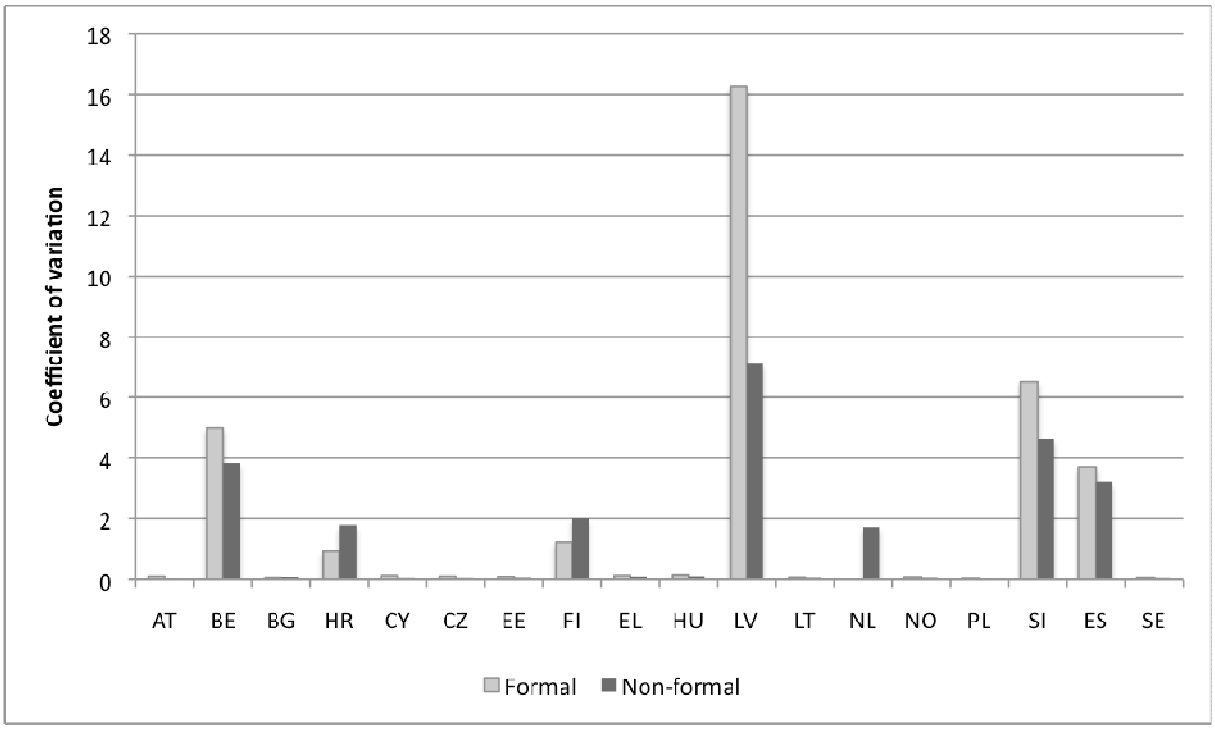
Country	Formal Education Activities		Non-Formal Education Activities	
	Estimated Value	Coefficient of variation	Estimated Value	Coefficient of variation
Italy	367.00		47.70	
Latvia	27.64	16.25	76.52	7.14
Lithuania	358.98	0.06	69.20	0.05
Netherlands			81.00	1.72
Norway	364.00	0.07	78.00	0.05
Poland	416.21	0.03	79.82	0.03
Slovakia				
Slovenia	282.03	6.52	48.21	4.64
Spain	412.53	3.71	111.52	3.20
Sweden	524.00	0.05	54.00	0.04
United Kingdom	124.60		41.00	

Figure 3-2 Average number of hours spent in all formal / non-formal education activities - Coefficients of Variation



Finally, as regards data weighting, all countries used data on gender and age in the weighting process. The following variables were also used as calibration variables: place of residence (rural/urban area), region (according to NUTS II level), education level, employment status, and in only few cases nationality (Belgium and Germany), household size (Belgium) and country of birth (Sweden). Data used for weighting were mainly taken either from the national LFS or the national population register.

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3.2.2 Non-Sampling Errors

3.2.2.1 Coverage Errors

Coverage errors (or frame errors) are due to divergences between the target population and the frame population. Their existence depends largely on the quality of the sampling frame used for the selection of the sample. In the pilot AES countries used various sampling frames. These are presented in Table 3-5 below.

Most of the countries used a population register, while six countries used the national data from the latest population Census. The United Kingdom used the Postcode address file.

Table 3-5. Sampling frames in the pilot AES

Country	Sampling Frame
Austria	Central Register of Residents
Belgium	National Register
Bulgaria	Population Census 2001 Register
Croatia	Data Base of individual data collected during the Census 2001
Cyprus	2001 census of population and Electricity Authority of Cyprus
Czech Republic	Czech census enumeration unit register
Estonia	The Population Register
Finland	Population database maintained by Statistics Finland
France	Population Census 1999
Germany	The population register
Greece	2001 census
Hungary	2001 Population and Housing Census
Italy	Public register of households
Latvia	Central Statistical Bureau of Latvia (CSB) Address Register
Lithuania	The Population Register
Netherlands	Municipal basic registration of population data
Norway	Central Population Register
Poland	Register of Domestic Territorial Division
Slovakia	Slovak total population, state to 31st December 2005
Slovenia	Central Population Register
Spain	Spain Official Population Register
Sweden	Swedish total population register (TPR)
United Kingdom	Postcode address file

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As regards the quality of the sampling frames, some countries mentioned as drawback the existence of time lag between the starting date of the survey and the date of last update of the sampling frame. This was more apparent in countries that used their national census as sampling frames. In these cases, sampling frames may include persons who have moved, died, migrated, etc. or households that have been pulled down, temporarily inhabited or converted into non-housing premises since the census took place.

Countries invented different approaches to overcome problems related to the difficulties to reach members of the sampling frame. Bulgaria for instance chose to create a bigger sample to make allowance for ineligible units and ensure the adequacy of the sampling units. Lithuania reports the use of the nearest birthday rule for replacing persons that were not longer accessible. Table 3-6 shows the gross sample, the non-eligible and eligible elements found in the sampling frame. The percentages of eligible elements over gross sample are presented in Figure 3-3. High percentages are indicative of satisfactory quality of the sampling frame. Eligibility fractions of households are over 90% for 12 countries out of the 17 countries that have provided this information, while eligibility fractions for individuals are overall lower, with only 3 countries out of the 11 that provided this information to reach a fraction over 90%. The lowest eligibility rate has been reported by Greece, where almost half of the individuals were not eligible for sampling units.

Figure 3-3. Eligibility fractions (%)

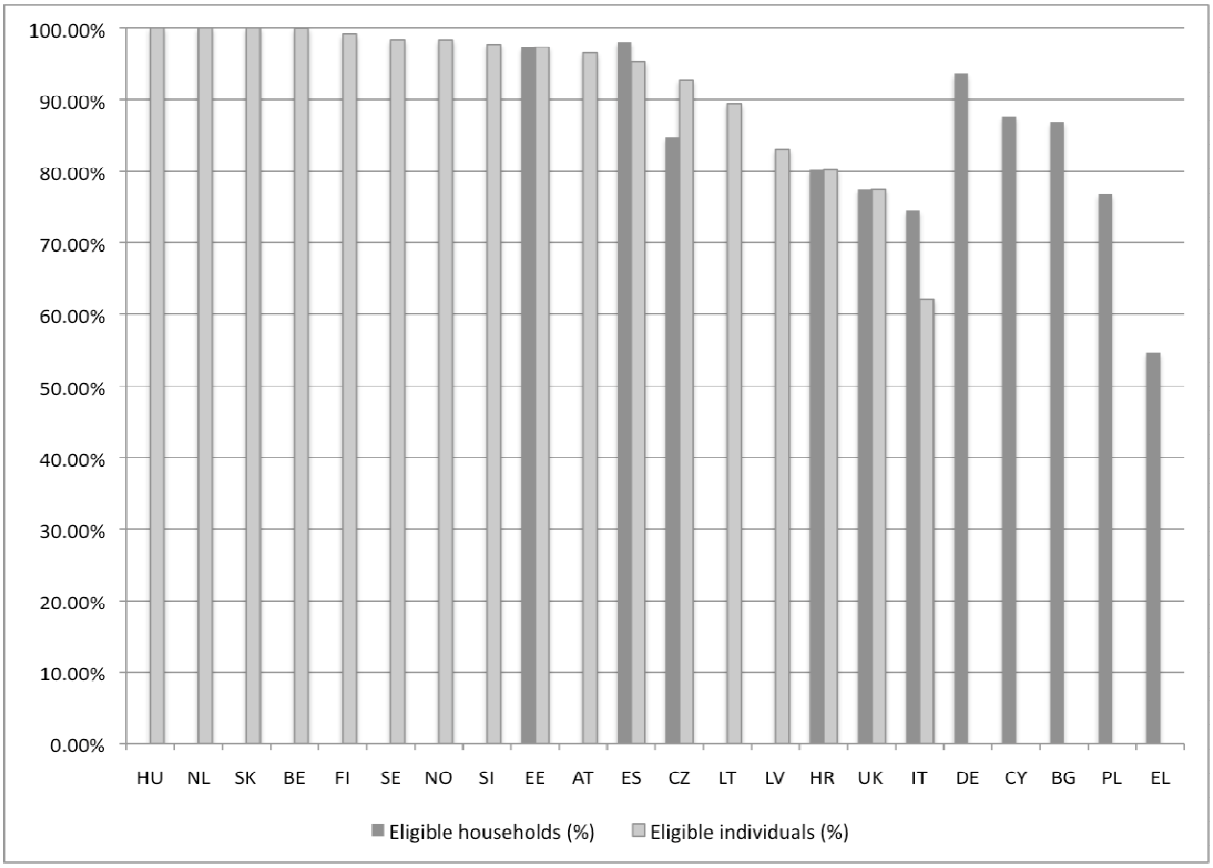

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Table 3-6. Gross sample, non-eligible and eligible elements in the sampling frame

Country	Number of households				Number of individuals			
	Gross Sample	Ineligible: Out-of Scope	Other Ineligible	Eligible elements	Gross Sample	Ineligible: Out-of Scope	Other Ineligible	Eligible elements
Austria					8500	84	212	8204
Belgium					15000	0	7	14993
Bulgaria	3990	197	326	3467				
Croatia	5000	90	898	4012	5000	90	898	4012
Cyprus	7240	294	599	6347				
Czech Republic	7800	834	354	6612	11730	846	0	10884
Estonia	5341		141	5200	5341		141	5200
Finland					6442	0	54	6388
France					16197			
Germany	17738	958	178	16602				
Greece	7704	1579	1915	4210				
Hungary					7924	0	0	7924
Italy	24611	5874	369	18368	62474	22721	937	38816
Latvia					4611	8	773	3830
Lithuania					5000	0	527	4473
Netherlands					5440	0	0	5440
Norway					4500	0	71	4429
Poland	25061	4432	1382	19247				
Slovakia					5001	0	0	5001
Slovenia					7200	0	161	7039
Spain	20649	29	358	20262	20649	7	946	19696
Sweden					5000	0	78	4922
United Kingdom	11130	1511	983	8636	11130	1511	983	8636

3.2.2.2 Measurement Errors

For most countries AES was a stand-alone survey. In four countries, France, Greece, Hungary and the Netherlands, the AES was an ad-hoc module of the national LFS. Italy carried out the AES as part of "Citizens and their leisure survey".

As regards the data collection method, it was recommended to carry out CAPI interviews. This was applied by six countries and partly by five countries. The method used in each country is shown in the table below.

Table 3-1. Data collection method in the pilot AES

Data collection method	Country
PAPI	Austria, Bulgaria, Croatia, Czech Republic, Greece, Hungary, Italy, Latvia, Lithuania, Poland, Spain
CATI + CAPI	Norway, Slovakia, Slovenia, Sweden
CAPI + PAPI	Netherlands
PAPI + web survey	Belgium
CAPI	Cyprus, Estonia, Finland, France, Germany, United Kingdom

A factor that may cause measurement errors is proxy interviews. In these interviews the information collected for the respondent is taken from another person that answers the questionnaire instead of the respondent. Allowing proxies can reduce costs since the interviewer may collect the data right away rather schedule a return trip to speak to every person in the household. On the other hand, interviewing through a proxy can lead to inaccurate responses and thus, is not recommended.

Proxy interviews were not allowed in most of the countries. Exceptions were five countries that reported the following proxy rates: Greece (22.9%), Italy (10%), the Netherlands (allowed only in CAPI, 22%), Poland (15.6%) and Slovenia (allowed only in CAPI - no estimation given on proxy rate).

<u>Problems with the definitions and implementation of the CLA concepts</u>

Most countries stressed the difficulty in distinguishing among the concepts of formal, non-formal and informal learning, the difficulty in understanding the concept of the guided on-the-job training as well as problems in defining certain types of education activities such as astrology, yoga, tango (dance) etc.

Although no proposed solutions were required for this section, some countries provided relevant suggestions that were implemented at national level, e.g. the inclusion of seminars and workshops in informal learning for the British survey.

Some of the suggested solutions were more general focusing on the training of the interviewers and particularly giving emphasis in studying the fields of education and training before the interview takes place, while some others were more specific, e.g. splitting the question on informal learning into two questions as it occurs in the British questionnaire.

Problematic modules and variables

At first, countries carried out a pilot testing of the survey questionnaire in order to see the reaction of respondents to the AES survey and identify the points that would need improvement before the fieldwork. This pilot testing indicated various problems with the modules and variables of the AES. These mainly concerned difficulty in distinguishing informal learning from studying, guided on-the-job training from training that was part of the job, difficulty in remembering self-study time, number of non-formal activities as well as difficulties in reporting obstacles.

Table 3-7 summarises the problems reported in each section of the questionnaire and in the survey design as a whole.

Table 3-7. Problematic modules and/or questions in the AES

Section	Problematic modules and/or questions	Country
Background Information	Parental education	Hungary, Spain
	Citizenship	Latvia
Formal education	Number of instruction hours in formal education	Austria, Belgium, Croatia, Latvia, Poland, Slovenia
	Level of formal education	Belgium
	Cost of formal education activities	Belgium
	Distinguishing costs of exam fees, tuition etc. from the cost of books, technical study means etc.	Norway
Non-formal education	Number of instruction hours in non-formal education	Austria, Belgium, Bulgaria, Croatia, Finland, Latvia, Poland, Slovenia, Spain
	Certificate of a non-formal activity in education and training	Austria, Cyprus
	Number of non-formal education activities	Greece
	Distinguish between guided on the job training and learning from a colleague	Latvia, Lithuania
	Field of the third randomly selected activity	Sweden
	Guided on-the-job training from other forms of planned learning activities at work:	Norway
	Separating guided on-the-job training from random learning at work	Norway
	Type of non-formal education activities	Greece

Section	Problematic modules and/or questions	Country
	Cost of non-formal education activities	Belgium
	Number of travel hours	Bulgaria, Latvia, Poland, Spain
	Number of time spent at home	Poland, Spain
	Number of homework hours	Bulgaria, Latvia
	Provider of non-formal education activity	Cyprus, The Netherlands
	Difficulty remembering self-study time	Lithuania
	Distinguishing costs of exam fees, tuition etc. from the cost of books, technical study means etc.	Norway
Informal education	Informal learning	Finland, Spain, Sweden
Modules	Obstacles in participation in education	Austria, Finland, Hungary, Italy, Slovakia, Cyprus
	Use of ICT	Austria
	Language skills	Norway
	Level of knowledge of foreign languages	Poland
	Level of computer use (literacy)	Poland
	Attitudes towards learning	Hungary, Spain
Others	Fields of education and training (post-coding)	Austria
	Long and complex questionnaire	Austria, Bulgaria, Croatia, Czech Republic, Slovakia, Spain, Sweden
	Long reference period: remembering problems	Bulgaria, Croatia, Czech Republic, The Netherlands, Slovakia, Spain, Sweden
	Distinction between formal, non-formal and informal learning (definition)	Belgium
	Face-to-face method of interviewing	Croatia
	Implementation in a PAPI survey	Italy
	Post coding of the ISCO/NACE/ISCED	Cyprus
	Distinguishing between non-formal and informal learning	Latvia
	PAPI questionnaire (The choice of learning activities i.e. three out of ten)	The Netherlands
	Field of education or training	Norway
	Coding with alphanumeric codes	Slovakia
	Duration of interview	Spain
	Access to information about learning possibilities	Spain

Several countries proposed specific solutions to such problems which, apart from the training of the interviewers, involved the questioning of fewer than three formal/non-formal activities, the exclusion and/or modification of specific modules/questions, the provision of more detailed explanatory notes to the interviewers/respondents, the introduction of techniques for calculation of the volume of participation, etc.

3.2.2.3 Processing Errors

Countries applied various checking rules during the data validation to check for inconsistencies, wrong values, etc. It is mentioned that in countries that carried out the survey with CAPI method, many consistency and validation errors were avoided during the interview or eliminated during post data collection process. In many cases, validation was carried out by running the XTNet-Edit Lite programme recommended by Eurostat. Overall, most errors were detected in the section of obstacles in participation in education and training and in the coding of the fields in formal, non-formal education and training as well as in informal learning.

Open questions in the AES

Many countries included open questions in their questionnaires. These questions concerned the following variables:

- Country of birth (except for Estonia),
- Highest level of education or training successfully completed,
- Level of education higher than mentioned before but abandoned,
- Economic activity,
- Occupation now and one year ago,
- Parental education and occupation,
- Level and field of formal education,
- Field and provider of non-formal activity,
- Field of informal learning activity,
- Reasons for not participating
- Most important subjects learned by informal learning
- Language knowledge (mother tongue, languages that respondent knows the best).

Questions including response "other"

Countries indicated the questions for which the category “other” was often chosen by respondents. The variable with the highest rate of respondents answering “other” referred to the reasons for not participating in training. Countries reported that there were significant numbers of other reasons that were not included in the list provided in the questionnaire. The most common reason was connected to the lack of time due to job-related responsibilities. The variable “Training conflicted with your work schedule", which may be considered relevant to the above reason, was found too specific and thus, was not identified by the respondents. Other reasons for not participating concerned family responsibilities and health/age status.

Another variable where the category “other” was often indicated concerned the provider of the “Non-Formal” activity. Respondents often found it difficult to assign the provider to the categories offered. According to Germany, this problem will not be solved by additional categories because the existing categories are fairly abstract and cannot easily be assigned to concrete providers.

Finally, the list of language codes to be used in the micro data sent to Eurostat should be extended. The reason is that currently too many important languages end up in the "other" category.

3.2.2.4 Non-response Errors

Non-response is the failure of a survey to collect data on all survey variables, from all the population units designated for data collection in a sample or complete enumeration. The difference between the statistics computed from the collected data and those that would be computed if there were no missing values is the non-response error.

There are two types of non-response, unit and item non-response. The first occurs when not all individuals of the gross sample (i.e. the initial sample drawn from the reference sampling frame) participate in the survey and are thus not included in the net sample. Item non-response occurs when a respondent provides some, but not all, of the requested information, or if the reported information is not useable.

Unit non-response

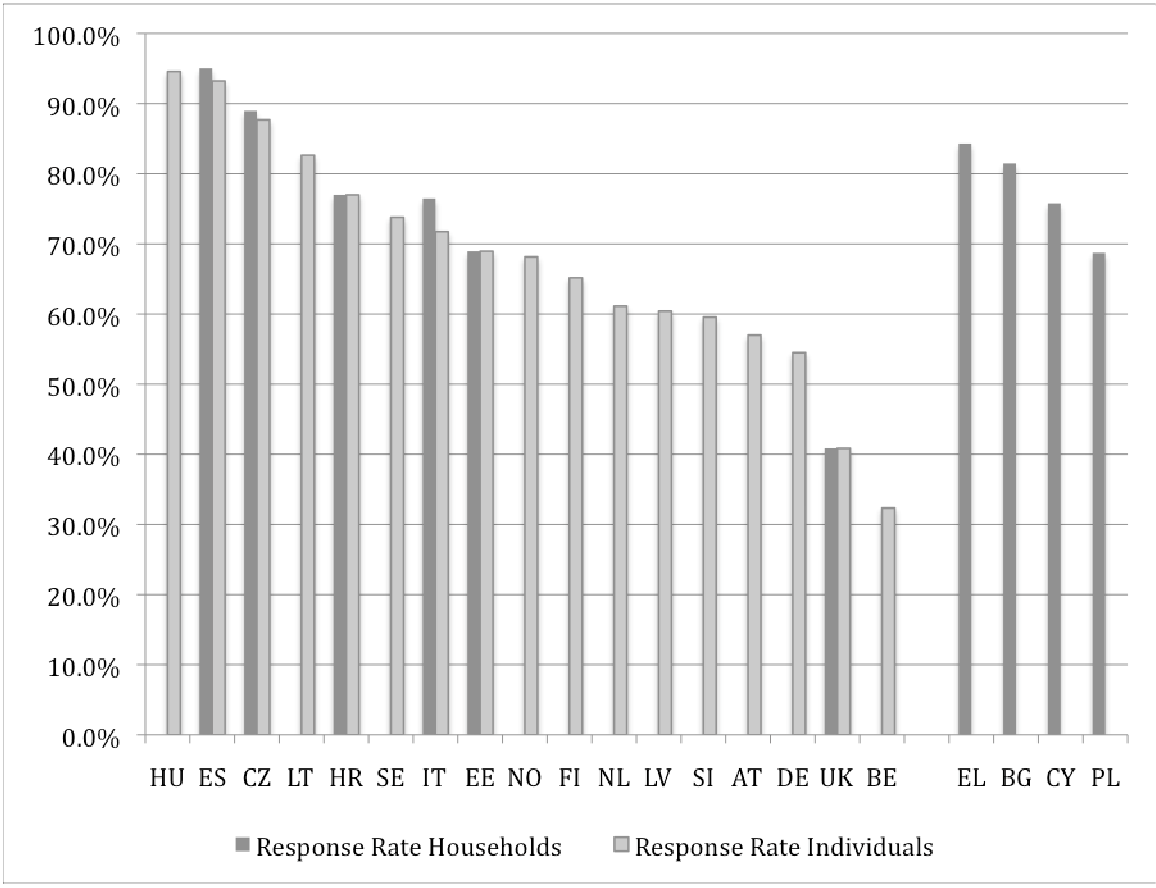
The reasons for unit non-response are mainly:

- Non-contact: No one was home or the postal survey was never sent back. High number of non-contacts is caused by the poor quality of sampling frame since for a large number of persons the address provided in the Population Register is incorrect.
- Refusal: Selected household or individual was contacted but refused to take part in the survey.
- Inability to Response: Selected household or individual was unable to participate due to language barriers or cognitive or physical incapacity to respond.
- Rejected interviews: The selected household/individual did take part but the survey form cannot be used due to poor quality or very high item non-response.

Table 5-2 in the Appendix of this document presents the number of non-response units by type of non-response. “Non-contact” and “Refusal” appear to be the main reasons for unit-non-response. Notable exception is the Czech Republic where most of the non-response cases concerned rejected interviews.

Figure 3-4 shows the response rates in the pilot AES for households and individuals.

Figure 3-4. Response rates in the pilot AES



Response rate in six countries (Bulgaria, Czech Republic, Greece, Spain, Hungary and Lithuania) exceeds 80% for both households and individuals. The highest rate (95%) is reported in Spain (for households) and Hungary (for individuals). On the other hand, Belgium and the United Kingdom have the lowest response rates which are close to 30% and 40% respectively.

Minimising unit non-response

Countries made significant efforts to minimise unit non-response and thus, improve the quality of the survey. The most common measures taken in this direction were the following:

(1) Training of interviewers: rigorous training of interviewers, repeated emphasis on the importance of high response rates in courses and briefings, frequent feedback to interviewers about their own performance and that of the survey, continuous support and progress chasing of interviewers from operations staff, an interviewer payment scheme rewarding high response rates, extra time of fieldwork in case of low response rates.

(2) Contact with respondents before the interview: the selected individuals were contacted by mail/phone/visits. Respondents were informed about the purpose of the survey, the mode of interview and how they could prepare themselves for it, confidentiality issues and the users of AES statistics. By contacting respondents, the time of the interview was also arranged.
(3) Numerous visits to respondents before reporting them as non-contact.

3.3 Timeliness and Punctuality

Table 3-8 shows the timeline of the pilot AES. Only few countries indicated information about deviations between real and planned dates of the AES preparation. In most cases there were no deviations. Only Hungary, Latvia, Norway and Slovakia reported difference of maximum 2-4 months mainly as a result of human resources problems.

Table 3-8. Timeline of the pilot AES

Country	Pilot testing	Fieldwork	Processing	Data delivery to Eurostat
Austria	02-03/2007	04-11/2007	12/2007-05/2008	28/07/2008
Belgium	10-11/2007	02-06/2008	05-10/2008	01/2009
Bulgaria	05/2007	11-12/2007	02-05/2008	05-06/2008
Croatia	10/2007	12/2007	01-10/2008	11/2008
Cyprus	11-12/2005	09-12/2006	09/2006-06/2007	07/2007
Czech Republic	10/2007	01-03/2008	04-07/2008	07/2008
Estonia	10-11/2006	09-12/2007	01-04/2008	22/04/2008
Finland	06/2005	03-08/2006	04/2006-07/2007	31/05/2007
France	06-10/2005	01/2006-01/2007	02/2007-02/2008	02/2008
Germany	01/2007	03-07/2007	07/2007-04/2008	09/04/2008
Greece	03/2007	10-12/2007	10/2007-02/2008	21/02/2008
Hungary	04-05/2006	07-09/2006	10/2006-05/2007	05/2007
Italy	no pilot testing	05-08/2006	09/2006-07/2007	07/2007
Latvia	02-03/2007	05-06/2007	07-08/2007	30/08/2007
Lithuania	no pilot testing	03-04/2006	05-10/2006	10/11/2006
Netherlands	-	02-04/2008	05-08/2008	03/2009
Norway	02-03/2007	05-08/2007	07-11/2007	03/2008
Poland	05/2006	10-12/2006	10/2006-05/2007	12/07/2007

Country	Pilot testing	Fieldwork	Processing	Data delivery to Eurostat
Slovakia	02-03/2007	08-09/2007	10-12/2007	12/2007
Slovenia	10/2006	09-12/2007	01/2008-01/2009	06/2009
Spain	03/2006	02-04/2007	06-10/2007	11-12/2007
Sweden	05/2005	10/2005-03/2006	01-12/2006	01/2007
United Kingdom	08/2005	10/2005-02/2006	12/2005-04/2006	07/2008

3.4 Accessibility and Clarity

Almost all of the countries have published or plan to publish basic results and key methodological information on websites of national statistical institutes. Access to AES microdata is possible for all interested researchers upon request. In addition, methodological information and instruction to users is also available. Finland and Latvia considered also the organisation of seminars and demo sessions that would inform users about AES and the outcomes of the survey.

Most countries provided additional information along with the national quality report. This information mainly included the AES results predefined by Eurostat, the national questionnaire and the instructions given to interviewers.

3.5 Comparability and Coherence

3.5.1 Comparability / Deviations from the AES recommendations

Differences between national survey design and AES recommendations were reported by several countries. Greece, Hungary, Italy, Latvia, Lithuania, Poland and Slovakia used for data collection the face-to-face interviews with PAPI questionnaire as an interviewing method instead of the recommended CAPI. Norway and Sweden collected AES data by mixed CATI and CAPI method. Finally, the AES in France included a lot of open coded variables that required post-coding.

As regards the reference period, most countries followed the AES recommendations and defined this to be last 12 months prior to the date of the interview. This applied to most variables in the AES questionnaire. Notable exception is the Netherlands, where the reference period for Formal education activities was 4 weeks prior to the interview, since these data were obtained from the LFS. For questions related to parental education and occupation, the reference period was the time when the respondent was young teenager (around 14 years old). In addition, some background variables refer to the situation at the date of the interview.

3.5.2 Coherence

The pilot AES may be compared with the Long Life Learning module (LLL), carried out in 2003, as part of the Labour Force Survey. We present below a comparison study between the AES and the LFS prepared by Eurostat in 2009.

Main conclusions

Analyses of the AES results from the first 18 countries indicate systematically higher rates of participation in almost all the countries in the AES than the LLL-2003 and the LFS 2006. Difference in participation rates seems to be higher in non-formal than in formal education and training. Countries with high participation rates have comparatively lower differences in participation between AES and LLL-2003. Countries with high levels of participation in the LLL-2003 also had high levels of participation in the AES and countries with low participation in LLL-2003 were among countries with low participation rates in the AES.

Looking at the metadata information of the two surveys we can find explanations on the reported differences. The AES surveys were in many countries stand-alone surveys, proxies were not allowed in most cases, questions were well structured, survey variables were defined and interviewers better trained. Apart from this there is also a reference period difference between the AES and the LFS. The AES and the LLL-2003 have 12 months reference periods while the LFS has 4 weeks reference period.

One of the factors that has been analysed is the coverage of non-formal activities in the AES and the LFS. The AES covered: private lessons or courses, distance/open learning, seminars/workshops and guided on the job training. AES activities were dominated by private course/lessons but a considerable proportion took part in guided on-the-job-training.

Guided on the job training is not specified in LFS and the AES data have been analysed to determine the impact of guided on the job training on the participation rates in AES. Results show lower participation rates in the AES when guided on the job training is excluded. The generated rates/results are similar to the LLL-2003 (same reference period) in a number of countries though significant differences still exist for other countries.

Conclusion from the analyses of the available data indicates that results of the AES are higher than results from other surveys in lifelong learning mainly because of the differences in reference periods and the coverage of learning activities particularly guided on the job- training. The AES also have courses with short duration that would not have been included in the LFS. The minimum duration for formal education in the UOE[1] and LFS is one semester or half-year of studies. There is no such minimum duration in the AES.

[1] UOE stands for UNESCO Institute of Statistics/OECD/Eurostat data collection on education systems

Explanatory notes on differences between the AES and the LFS

Information from the data available so far shows systematic higher rates of participation in education in the AES compared with other similar surveys including the 2003 LFS ad hoc module, the LFS structural indicator, and data from the UOE. The differences appear not only aggregated levels but also within variables and sub-groups. Data from the Adult Education survey cannot be directly compared with other life long learning data from the LFS and ad hoc modules. There are significant methodological differences that account for the disparity in participation rates.

In the following sections we compare the data from the LFS 2006 (including the ad-hoc module of 2003), the AES and the UOE 2006 for formal and non-formal education.

(a) Formal Education

There are differences in participation rates between the Adult Education Survey and other data sources. Participation rates are higher in the AES than the other data sources. These differences are consistent in almost all the 18 countries represented in both formal and non-formal education and training. There a few differences in the trends especially in formal education where Sweden, Hungary and Italy have higher rates in the ad hoc module of 2003 than the AES for the age group 25-64 while the other countries have lower participation rates in both the LFS and LLL 2003.

Table 9. Participation in formal/regular education for age group 25-34 by data source (as a % of the population aged 25-34).

	UOE-06	AES	LLL-03	LFS-06
BG	5.1	7.5	3.9	4.5
DE	9.3	14.8	11.8	11.5
EE	11.3	11.3	11.0	8.5
GR	11.1	5.8	4.2	4.6
ES	8.0	11.8	9.6	6.6
IT	6.1	12.5	12.0	9.5
CY	3.8	7.8	6.1	4.8
LV	10.6	10.8	11.6	8.1
LT	12.3	16.4	8.2	10.4
HU	10.0	7.2	8.0	4.8
AT	8.4	11.5	9.7	9.2
PL	9.3	13.4	11.6	8.0
SK	5.6	12.7	2.6	3.8
FI	24.0	24.0	23.3	20.1
SE	20.6	26.5	27.2	13.8
UK	8.2	23.1	13.3	11.8
NO	12.7	20.9	6.1	13.1

Note: LFS-06 (SE): one reference week is used instead of four for the other countries

There are a few significant cases in age group 25-34 where other sources or surveys have higher participation rates than AES. In Hungary both the UOE and LLL-2003 are higher than AES, in Latvia LLL-2003 rates are higher than AES, in Greece the UOE rates are higher and in Estonia the rates for AES and UOE are the same. Estonia is also the country with the most even distribution of participation rates in all the 3 data sources.

(b) Non-Formal Education

Participation in non-formal education and training has the same trend as formal education in terms of difference in participation rates in the AES and the LLL-2003 though the differences are much higher. There are systematically higher rates of participation in all the countries in the AES than the LLL-2003 and the LFS 2006 with a shorter reference period (4 weeks). Countries with high participation rates like UK, Norway, Finland and Sweden seem to have comparatively lower differences in participation between AES and LLL-2003.

Table 10. Participation in non-formal education and training by type of survey (as a % of the population aged 25-64).

	AES	LLL-03	LFS-06
AT	39.8	25.3	10.8
BG	35.2	1.7	0.5
CY	39.5	20.6	10.1
DE	43.1	12.7	4.7
EE	40.2	14.8	3.0
ES	27.2	10.3	10.2
FI	51.2	41.3	15.5
FR	34.1	20.1	6.9
GR	12.7	4.9	3.5
HU	6.8	4.8	1.7
IT	20.2	5.1	3.2
LT	30.9	7.8	1.9
LV	30.7	13.4	3.6
NO	50.6	32.9	12.6
PL	18.6	9.8	2.0
SE	69.4	48.0	15.7
SK	41.2	20.5	2.7
UK	40.3	34.5	26.6

It is important to note however that countries with high levels of participation in the LLL- 2003 also had high levels of participation in the AES and countries with low participation in LLL-2003 were among countries with low participation rates in the AES.

Possible explanatory factors

(a) Characteristics of the surveys

In an attempt to find the differences between the participation rates in AES and other surveys and data sources, we begin first by comments offered by the National Statistical Institutes in the quality reports. All the countries acknowledge the differences and consistently higher rates of participation in the Adult Education Survey. The NSIs concentrated their explanations on mainly structural factors like the interview methods, type of survey, proxy answers, training of interviewers, questionnaire, definitions of variables and types of learning activities, reference periods. According to the quality reports part of the explanation for the high AES participation rates can be accounted for by the fact that most of the AES surveys were stand- alone surveys, proxies were not allowed in most cases, questions were well structured, variables were defined and interviewers better trained.

These factors can however not explain or provide all the answers for the differences in rates of participation. A second way of trying to find possible causes is looking at the coverage of the learning activities in the Adult Education Survey and the Labour Force Survey.

(b) Coverage of Learning Activities

In this section we would attempt to look at the coverage of learning activities in both the Adult Education Survey and the Labour Force. The definition of formal education and training is basically the same and expected to cover the same types of formal learning activities. The duration of these activities would however be significant in mapping out the differences in the two types of surveys. The main focus here will be to determine whether the AES has a comparatively high share of short duration courses (5-10 hours duration).

For non-formal activities, guided on the job training has been identified as one of the factors that need further investigation and analysis in explaining the differences in coverage between the two surveys.

<u>Non-formal education and training activities:</u>

Non-formal education and training activities in the AES are categorised into the following types of activities:

- Private lessons or course
- Distance education
- Seminars/workshops
- Guided on the job training

The next table shows the participation rate among the non-formal education and training participants by type of activity.

Table 11. Participation in non-formal education and training by type of activity (as a % of the population participating in non-formal learning activity, age 25-64), AES-2007.

	Private lessons or course	Distance/open learning	Seminar / workshops	Guided on the job training
AT	70.7	3.4	52.2	25.3
BG	23.5	1.3	14.3	81.3
CY	34.4	1.2	41.3	47.5
DE	67.2	2.1	48.4	24.5
EE	64.7	3.8	24.7	40.8
ES	42.3	8.5	41.6	19.3
FI	84.4	8.6	24.1	21.1
FR	72.5	14.5	23.1	24.0
GR	73.2	1.6	:	33.7
HU	51.6	9.1	9.1	38.0
IT	72.4	9.4	17.1	50.6
LT	62.2	4.8	46.0	26.5
LV	52.6	2.8	60.4	15.3
NO	:	:	:	26.3
PL	30.9	6.0	17.6	72.2
SE	69.8	:	60.9	35.1
SK	27.9	3.8	24.0	84.0
UK	89.6	25.4	:	45.4

The next table shows the participation in non-formal education and training by type of activity. The reference population consist of the total participants in non-formal education and training and not of the full target population of the AES. The results show that a large share of the participants took part in private lessons and seminar/workshops. Almost 90% of participants in UK had private lessons or courses and this is closely followed by Finland, Sweden, Austria, France and Germany.

Seminars and workshops is the second largest category and here Sweden Latvia and Austria dominate with participation rates above 50% each. A considerable proportion is found in the category of guided on the job training especially in Slovakia, Bulgaria and Poland.

Distance and open learning/education has the lowest values but a distinction from the trend is UK where a quarter of all participants in non-formal education took part in at least one open/distance learning activity.

Guided on the job training

Participants in non-formal education and training can be categorised by the type of guided on the job training. The three main categories are those who took part in only guided on the job training, those who did not take part in guided on the job training and the rest whose activities are both guided on the job training and other activities.

Table 12. Participation in non-formal education and training by type of guided on the job training, as a % of the population participating in non-formal learning activity, age 25-64, AES-2006.

	Only guided on the job training NFE activities	Only non guided on the job training NFE activities	Both types of NFE activities
AT	9.9	78.6	11.6
BG	66.6	19.0	14.4
CY	32.5	52.5	15.0
DE	8.1	75.5	16.4
EE	24.1	65.6	10.3
ES	16.4	80.7	2.9
FI	5.6	79.3	15.1
FR	12.1	76.3	11.6
GR	25.8	66.3	7.9
HU	33.6	62.9	3.6
IT	19.5	80.5	:
LT	14.9	72.9	12.2
LV	27.4	63.7	8.9
NO	7.8	73.8	18.4
PL	81.3	12.4	6.2
SE	6.7	65.2	28.1
SK	73.2	17.1	9.7
UK	44.2	55.8	:

A significant number of participants in non-formal education and training took part in only guided on the job training activities as illustrated on Table 12. Over 80% of participants from Poland took part in only guided on the job training. Slovakia and Bulgaria have equally high rates of participants taking part in only guided on the job training. Participants from Norway, Germany, Sweden, Finland and Austria have low rates in 'guided on the job training'. Some participants took part in both guided on the job training and other activities though the percentages are much lower than the first two categories. Almost 30% of the participants in non-formal education and training from Sweden took part in both types of activities.

Impact of guided on the job training on participation rates

This section attempts to find out the impact of guided on the job training on participation rates in the AES non-formal education and training. The goal being to find some possible answers to explain some of the differences in participation rates in AES and LFS especially in non-formal education and training. The structural explanations from the quality reports have already been discussed and found not adequate enough to explain the differences.

The coverage especially the impact of guided on the job training therefore is important in the search for answers. One of such attempts consist in separating guided on the job training from the population of the non formal participants to ascertain participation levels. This new level will be compared to participation rates from other sources like the LLL-03 and LFS-06.

Earlier tables presented illustrate the differences between the various sources of data on non-formal education and training. The AES, the LFS ad hoc module 2003 (with 12 months reference) period, as well as LFS 2006 (4 weeks reference period).

Table 13. Participation in non-formal education and training by data source as a % of the population aged 25-64.

	AES	AES_adj	LLL-03	LFS-06
AT	39.8	31.3	25.3	10.8
BG	35.2	6.7	1.7	0.5
CY	39.5	20.7	20.6	10.1
DE	43.1	32.5	12.7	4.7
EE	40.2	26.4	14.8	3.0
ES	27.2	21.9	10.3	10.2
FI	51.2	40.6	41.3	15.5
FR	34.1	26.0	20.1	6.9
GR	12.7	8.4	4.9	3.5
HU	6.8	4.2	4.8	1.7
IT	20.2	16.3	5.1	3.2
LT	30.9	22.5	7.8	1.9
LV	30.7	19.5	13.4	3.6
NO	50.6	37.4	32.9	12.6
PL	18.6	2.3	9.8	2.0
SE	69.4	45.3	48.0	15.7
SK	41.2	7.1	20.5	2.7
UK	40.3	22.5	34.5	26.6

Table 13 shows participation in non-formal education and training by the various sources of data. The second category (AES_adjusted) is AES rates without guided on the job training. It is evident from the table that differences still exist between the AES and the other sources of data. The AES rates without guided on the job training is however lower and much closer to the LFS 2003 ad hoc module rates.

Some countries have much closer rates for the two surveys when guided on the job rates are excluded. Cyprus (20.7, 20.6), Finland (40.6, 41.3), Hungary (4.2, 4.8), Sweden (45.3, 48), Norway (37.4, 32.9).

Excluding guided on the job training gives a much lower participation rates for AES and more comparable with the LFS especially the 2003 ad hoc module. This however does not explain all the differences but gives us a good start in understanding the differences between the two surveys.

(c) Other Factors

Other factors would have to be investigated and analysed to get other explanations for the differences. Among others are the duration and intensity of activities (short, long courses) and distribution of job-related and non job-related participation between the two surveys. The fields of education will also be looked into.

(d) Concluding Remarks

Conclusion from the analyses of the available data indicates that results of the AES are higher than results from other surveys in lifelong learning mainly because of the differences in reference periods and the coverage of learning activities particularly guided on the job- training. The AES also have courses with short duration that would not have been included in the LFS. The minimum duration for formal education in the UOE and LFS is one semester or half-year of studies. There is no such minimum duration in the AES.

3.6 Overall Assessment

Adult Education Survey provides valuable information on the different types of learning that is intended to be used for the further development of national and European policies in this field. The first implementation of the survey highlighted the importance of the AES data, as most of the information provided is not available in other sources.

Most countries regard the overall quality of the pilot AES as good. Satisfactory timeliness, efficient data accessibility to users as well as comparability of national figures between countries are considered to be the most important strengths of the survey.

Countries perceive the accuracy of the AES as good but also identify room for further improvement. Most countries report low sampling errors and sampling frames used for the survey are in most cases of satisfactory quality. However, countries identify that the main drawback of sampling frames is the time gaps between the last update of the registers / date of census and the starting date of the survey. Response rates are high but some countries expressed their concerns about the decline in response rates compared to previous implementations of their national surveys.

The main weakness of the AES is the long questionnaire. Many countries consider that there are too many variables included in the questionnaire that result in high response burden. In addition, some of the survey concepts are confusing and thus, there is the need for better definitions and detailed guidelines on the survey variables. Also, some questions could be reformed and more categories could be added in order to avoid misunderstandings and item non-responses.

Moreover, the reference period recommended for most of the variables in the AES is considered to be long. Many countries reported that it was very difficult for respondents to recall all the activities they participated in the last twelve months and in the detail required by the AES questionnaire (fields of training, number of hours, providers, etc.).

4 Implementation and cross country comparability in the pilot AES

Eurostat developed a model questionnaire and a manual with guidelines in order to facilitate countries in the implementation of the survey. The manual consists of the following sections:

- *Description and explanatory notes (comments) of the variables and questions to be included in the AES together with their hierarchy - AES questionnaire*
- *Glossary*
- *Examples of possible flowcharts for some of the variables and/or questions*
- *Precision requirements for selected indicators*
- *Code book with the appropriate annexes for coding some of the variables*
- *Checking rules for the data which should be delivered*
- *Results of some cognitive tests and pilots*

Most countries followed the EU recommendations and provided a harmonised dataset. However, almost all countries reported problems in the implementation of the pilot AES. These problems mainly concerned difficulties in the interpretation of the survey concepts and the definitions of certain variables, including the categories provided for the variables of the questionnaire.

Detailed discussion of such problems as reported by countries has been provided in sections 'Measurement Errors' and 'Processing Errors' of Chapter 3. In summary we discuss the key issues below.

A factor that may cause measurement errors is proxy interviews, since interviewing through a proxy can lead to inaccurate responses. Exceptionally high was the percentage of proxy interviews in Greece, Italy, the Netherlands, Poland and Slovenia. With regard to problematic modules and problematic variables identified by the countries, these mainly concerned difficulty in distinguishing informal learning from studying, guided on-the-job training from training that was part of the job, difficulty in remembering self-study time, number of non-formal activities as well as difficulties in reporting obstacles. Most countries stressed the difficulty in distinguishing among the concepts of formal, non-formal and informal learning, the difficulty in understanding the concept of the guided on-the-job training as well as problems in defining certain types of education activities such as astrology, yoga, tango (dance) etc.

Most processing errors were detected in the section of obstacles in participation in education and training and in the coding of the fields in formal, non-formal education and training as well as in informal learning.

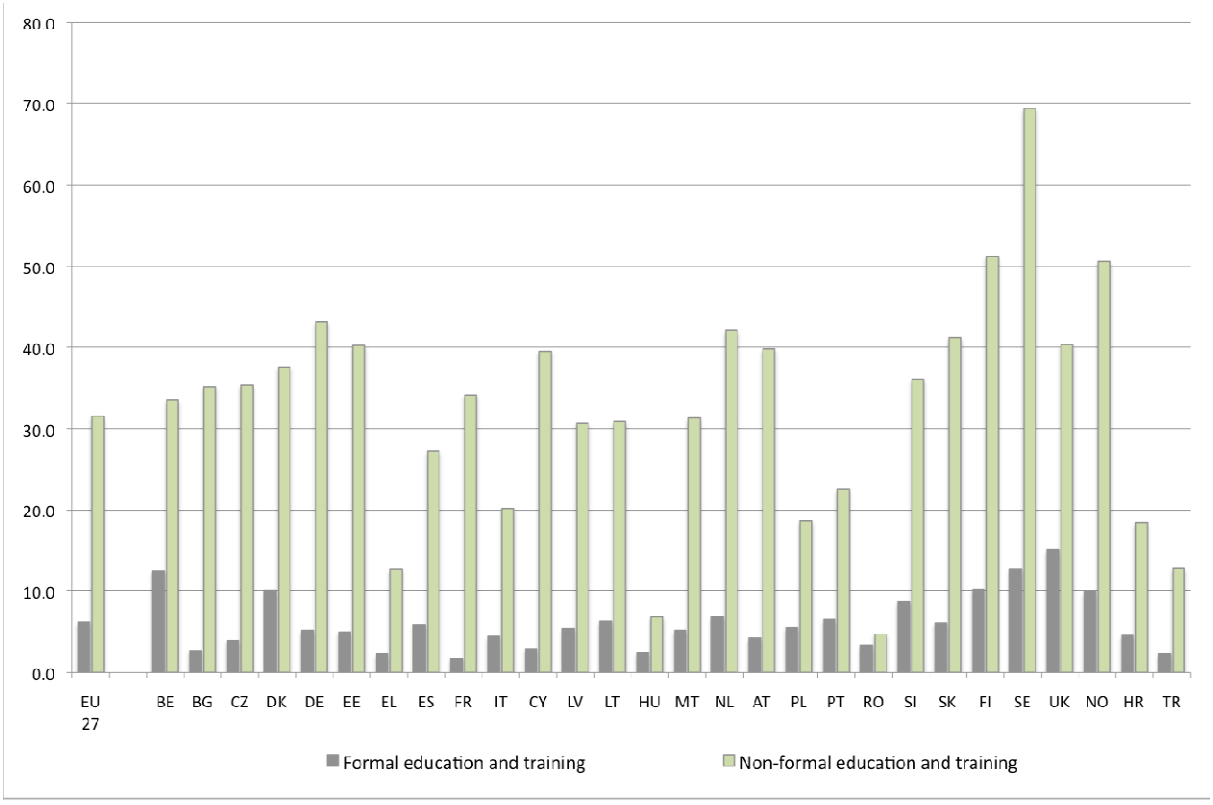
Main results from the pilot AES

In the following paragraphs we present some figures with results from the pilot AES for key survey variables. This data comparison is used to highlight differences in the provided data between countries that participated in the first AES and examine the possibility that these differences could be explained by the wrong interpretations of the survey concepts / variables or other problems in the survey implementation. Along with the presentation of data we discuss about possible reasons for the atypical patterns.

The following AES variables are presented in the figures below:

- Participation rate in formal and non-formal education and training
- Job related activities in non-formal education and training by age group
- Reasons for participation in non-formal education and training (the three most frequesnt reasons reported)
- Non-participation rate in education and training by sex
- Type of obstacles in participation, for respondents who did not participate but wanted to participate (the three most frequent obstacles reported)

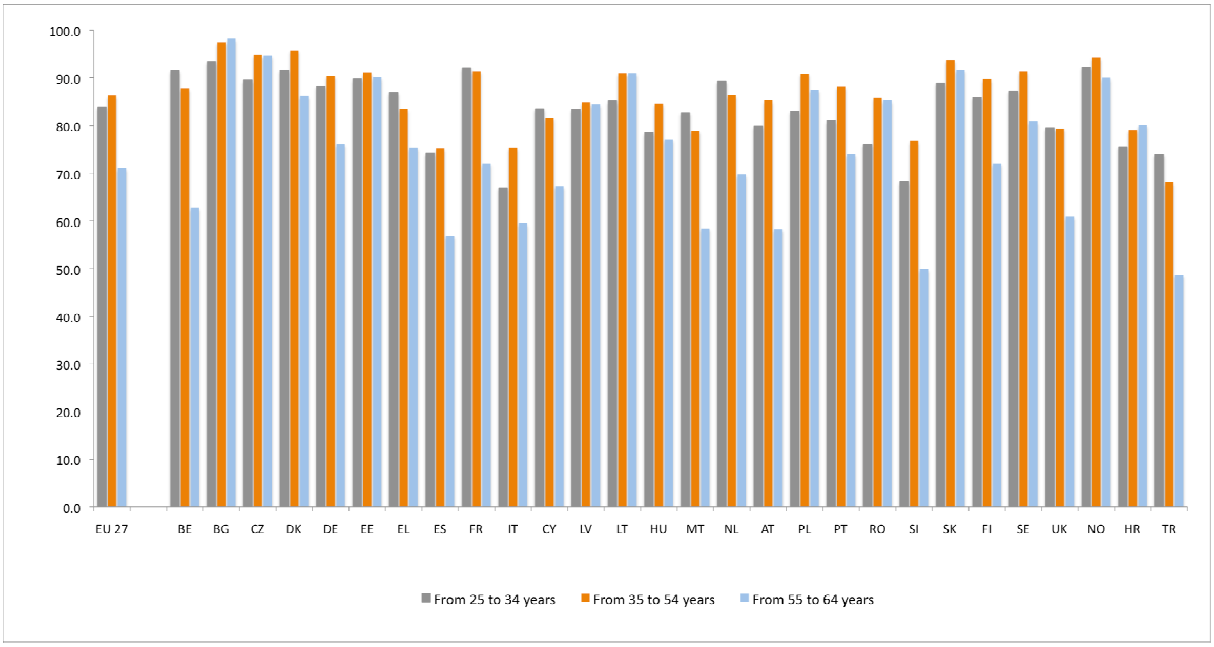
Figure 4-1. Participation rate in formal and non-formal education and training, 2007



Comparison of national figures in Figure 4-1 gives an indication that the concept of formal education is more clearly understood by the majority of the countries contrary to the concept of non-formal education. While participation rates in formal education for all countries are close to the EU27 average (6.2%), for participation rates in non-formal education we observe greater fluctuations from the EU average (31.5%): maximum percentage reported by Sweden (69.4%) and smallest by Romania (4.7%). These results could possibly be explained by the difficulties that most countries have reported in distinguishing among the concepts of formal and non-formal (and informal) learning and in particular difficulties with the non-formal related questions (Table 3-7).

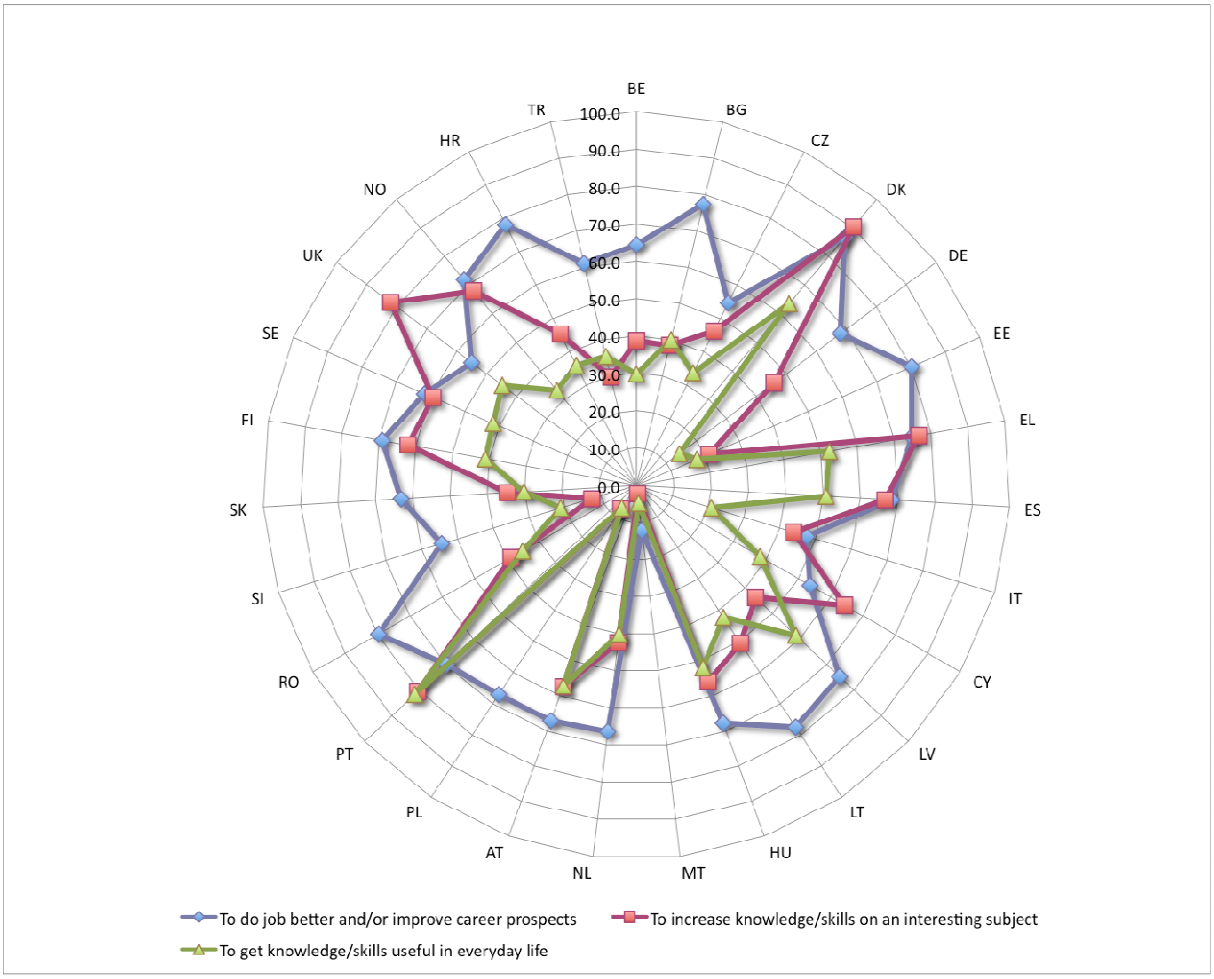
In the following figure (Figure 4-2) we display the distribution of job-related activities in non-formal education and training by age group. The question on the job-related activities in non-formal education and training did not concern guided on-the-job training. In most countries percentages are higher for the smaller age groups, i.e. 25 – 34 and 35 – 54, compared to the older age group of 55 – 64. This finding is quite sensible since the younger workforce is usually more motivated than the older one to look for job-related training opportunities that will help them become better in their job and improve their career prospects, start their own business, meet new people, etc. This pattern is however not apparent for a number of countries, like Bulgaria, Czech Republic, Latvia, Lithuania and Croatia, with the older age group achieving equally big or larger percentages with the 35 – 54 age group. This finding could possibly be explained by possible misunderstanding of the concepts 'job-related activities' and 'on-the-job training'. It is also possible that discrepancies could be attributed to cultural particularities in these countries.

Figure 4-2. Share of job-related activities in non-formal education and training, respondents from 25 to 34 years, 35 to 54 years and 55 to 64 years (%), 2007



With regard to the reasons for participation in non-formal education and training (Figure 4-3) three are the most popular reasons: 'To do job better and/or improve career prospects' (median value 67.8%), 'To increase knowledge/skills on an interesting subject' (median value 45.9%) and 'To get knowledge/skills useful in everyday life' (median value 38.2%). The radar diagram below confirms that this is the order in most of the countries, with the exceptions of Denmark, Greece, Cyprus, Portugal and the United Kingdom. It is also worth mentioning the particularities of the United Kingdom and Slovakia: in the United Kingdom, the share of 'other reasons' than those listed in the relevant question is considerably high (86.1%) while in Slovakia the majority of respondents (66.1%) participated in non-formal education because they are said to be obliged to participate.

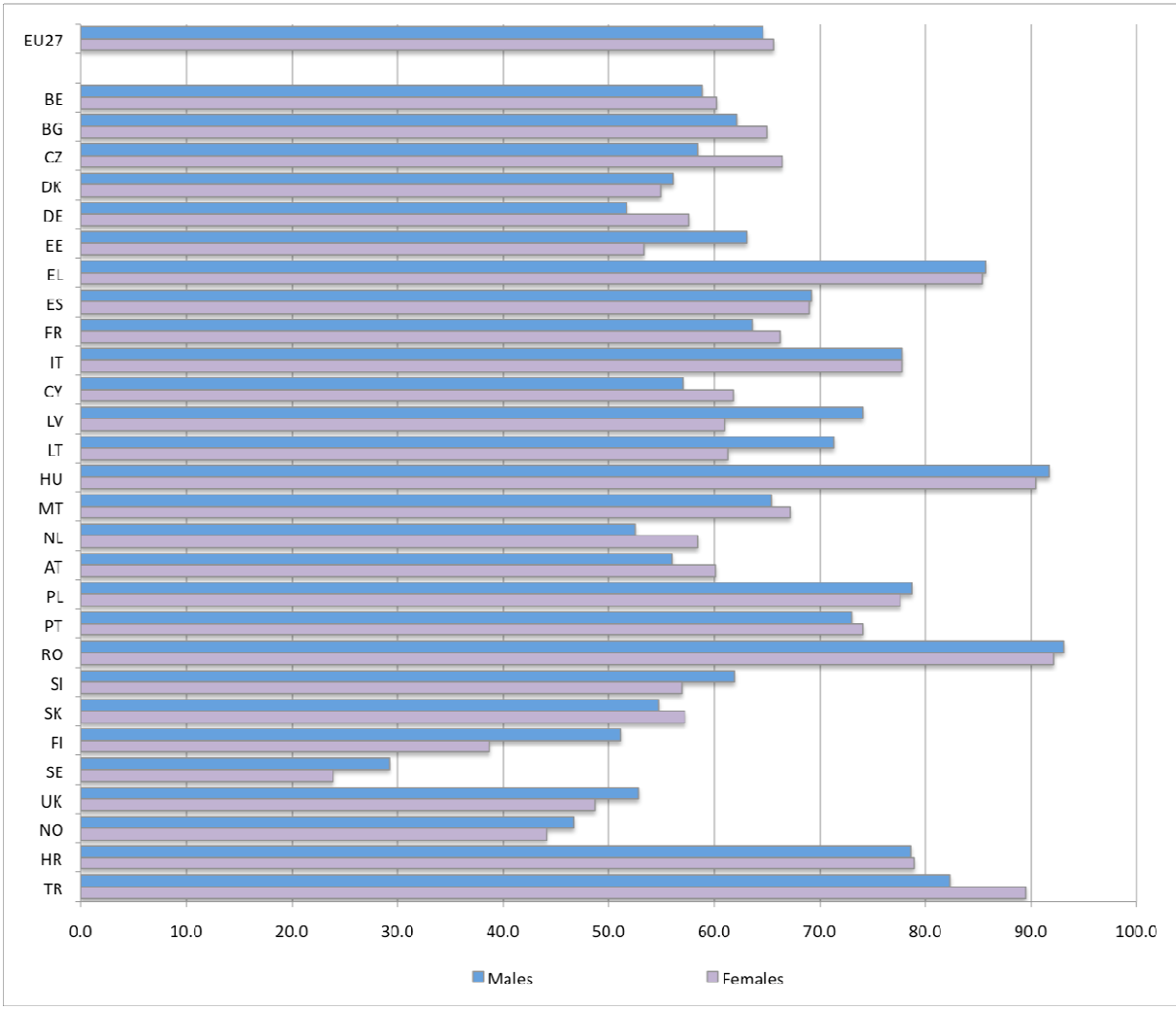
Figure 4-3. Reasons for participation in non-formal education and training (%), 2007



Note. In this chart we present the three most frequent reasons for participation in non-formal education and training. Please note that percentages do not sum up to 100% because this was a multiple-answer question.

No apparent trend has been observed for non-participation rates in education and training between males and females. Although non-participation rates for females are on average somehow greater than those for males, the difference is very small for the EU total (1.5% relative difference). Exceptionally large are differences in absolute terms for five countries: Estonia (18.4%), Latvia (21.5%), Lithuania (16.3%), Finland (32%) and Sweden (22.2%). It is also impressive that for those countries non-participation rates for males are higher than those for females. It is also worth mentioning that Greece, Hungary, Romania and Turkey report considerably high (more than 80%) non-participation rates.

Figure 4-4. Non-participation rate in education and training by sex (%), 2007

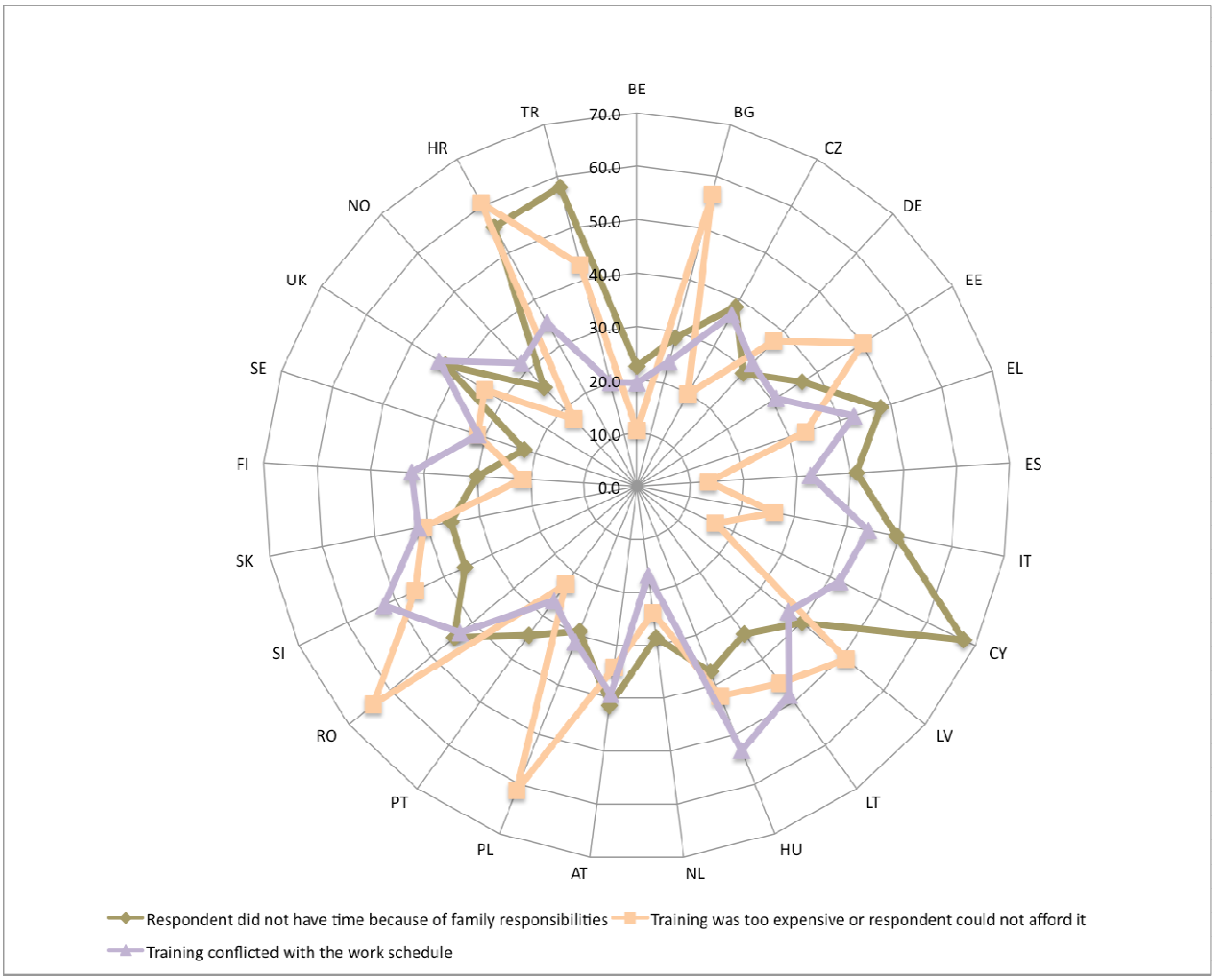


With regard to obtacles in participation in education and training, with which module six countries (Austria, Finland, Hungary, Italy, Slovakia, Cyprus) have reported difficulties and problems (see Table 3-7), three are the most commonly reported obstacles: 'Training conflicted with the work schedule' (median value 36.8%), 'Respondent did not have time because of family responsibilities' (median value 36.6%) and 'Training was too expensive or respondent could not afford it' (median value 34.2%). Median values reveal that there is no apparent trend in the order of obstacles

that respondents have reported. This is also evident in the radar graph in Figure 4-5.

Please also note the particularities of the United Kingdom and Slovakia. The United Kingdom has reported a very high percentage (56.5%) of other types of obstacles not listed in the respective question, while for Slovakia most respondents (56.8%) did not have the prerequisites for participation in such programmes.

Figure 4-5. Type of obstacles in participation for respondents who did not participate but wanted to (%), 2007



Note. In this chart we present the three most frequent types of obstacles for which respondents did not participate in education and training although they wanted to participate. Please note that percentages do not sum up to 100% because this was a multiple-answer question.

5 Recommendations for the next AES

With a view to improving the design of the next AES, Eurostat organised various meetings of the AES working groups in which the shortcomings of the pilot were further discussed. In addition, there were numerous written consultations with countries through which they could propose changes in the methodology and the AES technical documents. These actions resulted in the establishment of recommendations / solutions that could be applied in future rounds.

We summarise below the suggestions proposed for the improvement of the next AES, reported from both the users of AES data and the countries participating in the survey. Most of the recommendations refer to the AES standard questionnaire. As it is already mentioned in Chapter 3, the questionnaire of the pilot AES was considered to be too long. The lengthy questionnaire and the difficulties that have been reported in the interpretation of the survey concepts have resulted in measurement errors that should be reduced in future rounds.

Topics / Variables to be excluded

The following suggestions aim at the reduction of the length of the questionnaire. They refer to variables that could be excluded from the model questionnaire because they are regarded less important for analysis:

- The background questions of labour market situation/status one year before the survey could be simplified by asking for example the respondents whether the situation has changed/improved compared with one year before.
- Parent's labour market status could similarly be reduced by excluding the two questions related to the parent's main occupation.
- Selection of the number of detailed activities should be reduced to one and criteria should be discussed to replace a random choice, like level of importance to respondent, volume or duration of activities.
- Obstacles to participation should be separately asked for two instead of four groups of respondents (i.e. those who took part and those who did not take part in education and training activities)

It should also be mentioned that apart from the exclusion of some survey variables, most partners supported the approach of integrating the different social surveys, like the AES, LFS, and CVTS, to complement each other and thereby avoiding double or overlapping data collection.

Topics / Variables to be improved

The following list presents variables, already included in the model questionnaire that could be further improved. The proposed changes concern better definitions of the survey variables, different formulations of the questions, rephrasing and additions of follow-up questions that could ensure clarity and comparability of the survey data.

- More precise definitions of formal, non-formal education and training and informal learning.
- Overall consistent terminology in the standard questionnaire. It is recommended to use the terminology in the sense of EQF (European Quality Framework) concept like learning, learning outcomes, knowledge, skills and competences.
- Improvement of the educational variables to also include orientation (general and vocational education and training)
- Tools (computer, internet) and methods (distance learning) used in formal education should be reconsidered. Most formal educational programmes use these tools.
- Questions on the types of non-formal education and training should be improved to ensure clarity and comparability. Translations of these questions should also be carefully monitored to ensure all countries get the same understanding of the requirements.
- The present fields of learning in formal education are important but not detailed enough. For non-formal education, all the fields of classification are not very relevant.
- Access to information questions should be extended to include 'information, guidance and counselling services'.
- The level of detail regarding 'income' is insufficient for analysis and should be extended or improved.

Regarding the improvements proposed in the AES model questionnaire, we present below some remarks on specific variables / questions, presented separately for each section of the questionnaire.

(1) Information on the individual

BG10V	Orientation of the highest level of education attained

Recommended changes: Restricting the variable to ISCED 2- 4.

BG14V	Orientation of the education and training you did not complete

Recommended changes: Restricting the variable to ISCED 2- 4.

SF3V	Main occupation of father

Recommended changes: Rewording of the question – "What is the current or last occupation of your father". This is to incorporate respondents whose fathers/guardians are deceased or no longer active in the labour market.

SF4V	Main occupation of mother

Recommended changes: Rewording of the question – "What is the current or last occupation of your mother". This is to incorporate respondents whose mothers/guardians are deceased or no longer active in the labour market.

(2) Participation in Education and Training

Eurostat proposes that detailed information should be collected for only ONE activity (the most recent activity).

FED1V	During the last 12 months, that is since <month, year> have you been a student or apprentice in formal education (full time / part time)?

Recommended changes: Additional question or restructuring the current question to distinguish between initial and further education

FED3XV	Orientation of the most recent education and training

Recommended changes: Restricting the variable to ISCED 4.

FED6XQ	Main method of learning in your most recent formal education or learning activity

Recommended changes: Rewording of the question – "Which of the following forms of learning and media for learning were used in your most recent formal education or learning activity (multiple responses)". Restructuring the classifications to avoid overlapping of the IT related forms of learning. Better wording for the traditional methods of teaching.

(3) Non-formal education

NFE1	During the last 12 months have you participated in any of the following activities with the intention to improve your knowledge or skills in any area (including hobbies)?
NFE1aV	Private lessons or courses
NFE1bV	Courses, workshops and seminars
NFE1cV	Guided on the job training

Recommended changes: Adding a new category to distinguish between courses and workshops/seminars. The new suggested categories could be the following:

1. Private lessons - 2. Courses - 3. Workshops and seminars - 4. Guided on the job training

<u>Detailed information concerning selected activities</u>

Recommended changes: Selection of 3 detailed activities.

NFE7YV	Does this activity lead to a certificate required (compulsory) by employer or professional body for the execution of current or planned activity as employer or employee?

Recommended changes: Introduction of a general introductory question before NFE7. This question could be formulated as - "Is there a certificate at the end of the training activity or just a confirmation of attendance" with the following possible answers: 1. Activity leads to certificate - 2. Only confirmation of attendance - 3. None of the above.

Then, question NFE7YV will be formulated as - "If the activity leads to a certificate, is it required by employer or professional body for the execution of current or planned activity as employer or employee" with possible answers 1. Required by employer - 2. Required by professional body - 3. None of the above.

NFE18YQ	Main method of learning in the selected activity

Recommended changes: Rewording of the question – "Which of the following forms of learning and media for learning were used in <<the name of the activity>> (multiple responses). Restructuring the classifications to avoid overlapping of the IT related forms of learning. Better wording for the traditional methods of teaching.

NFE21YV	Are you satisfied with the education / training received for <<the name of the activity>>?
NFE21YQ	If no what are the reasons?

Recommended changes: Restructuring of the reasons - NFE21YQ with predefined categories: 1. Relevance/usefulness - 2. Level of training too low - 3. Level of training too high - 4. Quality of teaching - 5. Organisation of training (location, materials, classrooms etc) - 6. Other reasons.

(4) Obstacles to participation in education and training

Recommended changes: Detailed question on obstacles to categories 3 and 4

OB408Q	Your health or age

Recommended changes: Additional category to separate age and health

(5) Informal learning

INF8	Please list the 3 subjects you taught yourself using those methods

Recommended changes: Change of the wording - "Please list up to 3 subjects you taught yourself using those methods".

(6) Access to information about learning possibilities

ILP2V	From which source did you access information?(mark all that apply)

Recommended changes: Additional category - on line/telephone guidance services

(7) Cultural participation

CA1V	In the last 12 months have you attended any of the following: live performances (plays, concerts, operas, and ballet and dance performances), cinema, cultural sites or live sports events?

Recommended changes: A new question separating the various activities in CA1V could be used - "In the last 12 months have you attended any of the following: 1. Live performances (plays, concerts, operas, ballet and dance) - 2. Cinema - 3. Cultural sites - 4. Live sports events.

Suggested Topics / Areas to be included

Finally, we present a list of new topics that could be included in the AES model questionnaire.

- Instead of excluding the modules, it could be considered to include a few questions covering ICT, language, cultural and social participation.
- Specific suggestions for the adult literacy were provided including questions on problems with writing and reading at home and work, mathematics problems in daily life at home an work. Others include the need for more literacy skills and need to improve reading writing and mathematics skills
- Actions to be taken to facilitate participation, especially in non-formal learning activities. The policy question is how to make it more attractive, also for those who declare they did not want more training. This group could hide potential discouraged participants, and includes 50% of respondents. The question about obstacles can give an idea of main problems, but it is just a proxy of what could actually increase participation.

- Reasons for dropping out of formal education and not completing non-formal learning. One main strategic goal of EU policy in education and training is decreasing early school leaving. Deeper knowledge about perceived obstacles to the completion educational programmes and non-formal courses could highlight possible strategies to contrast the phenomenon.
- Outcomes of the learning activity. Outcomes can be considered under two integrating points of view: in terms of external results of the learning activity (higher salary, better job opportunities, new job for unemployed) or in terms of personal opinions (fulfilment of expectations). Here, the distinctions between job oriented training and other kinds of learning activities would be essential.
- Guidance. It could be better covered expanding the item in "Access to information" in order to cover a wider range of possibilities as far as choice of course and support during the course are concerned.
- Recognition. It would be relevant in terms of outcome of the learning activity. It could be also a tool to monitor the overall effect of programmes for recognition/certification of skills and competencies acquired through non-formal or informal learning that have been launched in some EU countries.
- Specific item for the question on "Employment characteristics of the main job". An item aiming at identifying whether the respondent manage or supervise other employees could be added.

Appendix A

Table 5-1. Target population in the pilot AES (number of individuals)

Country	Sex	Target Population			
		25 - 34 yrs	35 - 49 yrs	50 - 64 yrs	Total
Austria	Total	1,080,000	2,022,000	1,460,000	4,562,000
Belgium	Total				5,652,513
Bulgaria	Total	1,141,657	2,127,477	1,026,089	4,295,223
	Male	583,553	1,058,997	477,562	2,120,112
	Female	558,104	1,068,480	548,527	2,175,111
Croatia	Total				2,365,740
Cyprus	Total				422,469
Czech Republic	Total				6,045,009
Estonia	Total				705,976
Finland	Total	646,555	2,203,151		2,849,706
	Male	331,399	1,105,203		1,436,602
	Female	315,156	1,097,948		1,413,104
France	Total				31,500,000
Germany	Total				45,227,984
Greece	Total				6,050,927
Hungary	Total				5,567,176
Italy	Total				32,657,000
Latvia	Total	319,598	492,509	402,315	1,214,422
	Male	161,902	239,102	176,995	577,999
	Female	157,696	253,407	225,320	636,423
Lithuania	Total				1,795,078
Netherlands	Total				9,020,870
Norway	Total				2,510,364
Poland	Total				20,633,817
Slovakia	Total				3,006,599
Slovenia	Total	305,870	856,358		1,162,228
	Male	159,609	434,882		594,491
	Female	146,261	421,476		567,737
Spain	Total				25,507,487
Sweden	Total				4,793,653
United Kingdom	Total				31,141,000

Table 5-2. Non-response and types of non-response in the pilot AES

Country	Non-Response		Non-Contact		Refusal		Inability to Response		Rejected Interviews		Other	
	Households	Individuals	Households	Individuals	Households	Individuals	Households	Individuals	Households	Individuals	Households	Individuals
Austria		3529		2083		1006		71		272		97
Belgium		10143		9867		74		56		76		70
Bulgaria	642		333		307		0		0		2	
Croatia	923	923	359	359	364	364	31	31	14	14	155	155
Cyprus	1537		1179		302		56		0		0	
Czech Republic	730	1341			343	11			387	1330		
Estonia	1615	1615	930	930	654	654	31	31				
Finland		2226		563		1570		93		0		0
France												
Germany		7555		3360		3765		430				
Greece	661		428		233							
Hungary		430										
Italy	4320	10969	1906	4840	1602	4067	0	0	0	0	812	2062
Latvia		1516		961		321		20		0		214
Lithuania		777		273		445		11		0		48
Netherlands		2114		1346		754				14		
Norway		1411		412		879		120		0		0
Poland	5992		795		3317		20				1860	
Slovakia												
Slovenia				909		1338		114		0		486
Spain	1007	1334	776	683	224	611	7	40				
Sweden		1290		810		353		114		13		0
United Kingdom	5108	5108	739	739	3817	3817	445	445	13	13	94	94