# AES_ESQRS_A_MT_2011_0000

National Reference Metadata in ESS Standard for Quality Reports Structure (ESQRS)

Compiling agency: National Statistics Office (NSO)

Time Dimension: 2011

Data Flow: AES_ESQRS _A

| Concept name | |
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| 1. Contact | |
| 1.1. Contact organisation | National Statistics Office (NSO) |
| 1.2. Contact organisation unit | Unit C4: Education and Information Society Statistics, Directorate C - Social Statistics |
| 1.3. Contact name | Ms. SueAnn Scott |
| 1.4. Contact person function | Manager |
| 1.5. Contact mail address | National Statistics Office (NSO), Unit C4: Education and Information Society Statistics, Lascaris, Valletta, VLT 2000 |
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| 2. Introduction | The Adult Education Survey (AES) is carried out among all European countries, as part of the EU Statistics on lifelong learning indicators. There have been two waves of data collection so far - in 2007 & 2011. In 2011, this survey was carried out under EU framework regulation, EC Regulation 88/2011. This survey mainly involves the collection of data on the participation in formal, non-formal and informal education (FED, NFE, INF). For each type of educational activity, information such as the volume of hours of instruction/study, specialisation of course and methods of payment are obtained. |

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| 3. Quality management - assessment | For quality criteria, reference is made to the AES Manual provided by the European Commission as per EC Regulation 88/2011. All statistical procedures carried out for this survey, are strictly in line with Regulation's requirements and Eurostat's recommendations, in order to ensure the production of high quality and harmonised results.<br><br>Prior to data transmission, the data was validated making use of Eurostat purposely designed software - EBB 2011 - AES application. |
| 4. Relevance | |
| 4.1. Relevance - User Needs | The list of national users includes:<br>Institutions, Ministries, Government departments, The media, Enterprises, Researchers and Students.<br><br>At a national level, AES data was also published in a News Release. Users also have the possibility of requesting further data via a specific request through the NSO website. |
| 4.2. Relevance - User Satisfaction | In 2014, NSO carried out a user satisfaction survey among all those who made use of the NSO online request form or subscribed to the NSO news releases. The survey is in line with similar surveys carried out at a European level. Although results are not domain specific, resulted with regards to the unit can be found using the following link: http://nso.gov.mt/en/News_Releases/View_by_Unit/Unit_01/Methodology_and_Research/Pages/User-Satisfaction-Survey.aspx<br><br>Such survey showed that the Education and information society statistic units fulfils user expectations in all aspects of timeliness, usefulness and quality. |
| 4.3. Completeness | All statistics stipulated by the regulation have been collected in this survey. This way, NSO ensured that all European and national users' needs are met. |
| 4.3.1. Data completeness - rate | 100% |
| 5. Accuracy and reliability | |
| 5.1. Accuracy - overall | The measures taken to increase results' accuracy include:<br>Avoidance of proxy interviewing, Pilot testing of the questionnaire and Interviewer briefing.<br><br>In addition, data entry errors are curbed with the use of a customised software which includes built-in validations.<br><br>Human errors related to recall biases are reduced as data collected reports the most recent educational activities undertaken. |
| 5.2. Sampling error | The net sample of this survey amounts to 2,870 respondents in 2011, resulting in a margin or error (at 95% confidence level) of less than 4% on the main indicators.<br><br>Nonetheless users should be aware that the effect of sampling error increases as the number of observations decreases. |

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| 5.2.1. Sampling error - indicators | Estimates for sampling error are based on the calculations for a simple random sampling, via the equation below:<br><br>$$SE = \sqrt{\left(1 - \frac{n}{N}\right)\left(\frac{p.q}{n}\right)} * 100$$<br><br>Where:<br>N=Size of target population<br>n= Number of eligible units in the sample<br>p= estimated proportion<br>q=1-p<br><br>The standard error, aid us to compute confidence intervals and margin of error to determining the parameters of where the population mean actually lies. |
| 5.3. Non-sampling error | Every effort is made to reduce the below mentioned non-sampling errors, nevertheless a small element of these errors is inevitable:<br>¬ Interviewer Bias<br>¬ Recall Bias<br>¬ Data Entry Errors<br>¬ Response Error ( definitional differences, misunderstanding...etc)<br><br>A second set of weights is used to cater for the random selection of the two non-formal activities. |
| 5.3.1. Coverage error | The NSO makes regular updates to its household and individuals database which in turn is used as the sampling frame for this survey. Still there is a time lag between these updates and the time when actual sampling takes place.<br><br>Furthermore, no amount of updating will ultimately eliminate all biases. In many cases, these biases relate to under coverage problems which are generally attributed to population sub-groups: e.g. migrants, newly-weds etc. |
| 5.3.1.1. Over-coverage - rate | Not available, although it is believed that this proportion is very small. |
| 5.3.2. Measurement error | Every survey is a potential source for measurement errors mainly when recoding data in numerical values. Such errors are kept to a minimal by means of careful questionnaire design and providing thorough training for interviewers and processing staff. |
| 5.3.3. Non response error | The most common occurrences whereby data is left missing are for variables:<br>Average number of instruction hours per week for Non-formal Activity – NFEDURPERWEEK.<br>Costs paid for tuition, registration, exams, etc. for formal activity – FEDPAIDVAL.<br>Costs paid for tuition, registration, exams, etc. for formal activity - NFEPAIDVAL1/2.<br><br>This is due to the recalling of facts which happened the year before. Most often these are not imputed and left as unknown as they are deemed impossible to impute reliably. |
| 5.3.3.1. Unit non-response - rate | circa 10% |
| 5.3.3.2. Item non-response - rate | Due to difficulty in estimation, data is left missing for these three variables in particular (see point 5.8). In AES 2011, these made up approximately 12 per cent of the respondents who have attended formal and non-formal education in the previous year. |

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| 5.3.4. Processing error | The most common error detected in the post-data collection process is that of mixing up between formal, non-formal and informal education. Although, the difference between these three types of education is highlighted to interviewers during the briefing sessions, a number of errors is still discovered. These are corrected by contacting the household a second time and requesting clarifications. |
| 5.3.4.1. Imputation - rate | Due to the nature of the questionnaire, missing data is most-often left blank as it is considered impossible to impute reliably. |
| 5.3.4.2. Common units - proportion | Not applicable. |
| 5.3.5. Model assumption error | Not applicable. |
| 5.3.6. Data revision | AES data is not subject to revisions. |
| 5.3.6.1. Data revision - policy | Not applicable. |
| 5.3.6.2. Data revision - practice | Not applicable. |
| 5.3.6.3. Data revision - average size | Not applicable. |
| 5.3.7. Seasonal adjustment | Not applicable |
| 6. Timeliness and punctuality | |
| 6.1. Timeliness | circa 18 months |
| 6.1.1. Time lag - first result | 14 months |
| 6.1.2. Time lag - final result | 18 months |

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| 6.2. Punctuality | No late news releases were reported between 2011 and August 2014. |
| 6.2.1. Punctuality - delivery and publication | The news release is published on time, according to NSO's news release calendar. |
| 7. Accessibility and clarity | |
| 7.1. Dissemination format - News release | The AES survey is carried once every 4 years.  Accordingly, the news release is published after the transmission of data to Eurostat.  Link to news release published: http://nso.gov.mt/en/News_Releases/View_by_Unit/Unit_C4/Education_and_Information_Society_Statistics/Pages/Adult-Education.aspx |
| 7.2. Dissemination format - Publications | Not applicable |
| 7.3. Dissemination format - online database | An online database can be accessed on the Eurostat website: http://epp.eurostat.ec.europa.eu. |
| 7.3.1. Data tables - consultations | Not applicable. |
| 7.4. Dissemination format - microdata access | Anonymised micro-data is transmitted to Eurostat, in order to enable the compilation of customised reports by Eurostat for international users. Fully anonymised data can also be made available to accredited researchers upon request. |
| 7.5. Documentation on methodology | Reference is made to AES manual and other related documentation provided by Eurostat. The methodological techniques undertaken for this survey are also explained in the news release published by NSO. |
| 7.5.1. Metadata completeness - rate | Not applicable. |

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| 7.5.2. Metadata - consultations | Not applicable. |
| 7.6. Quality management - documentation | A quality report for AES 2011 was submitted to Eurostat 9 months after data collection, that is, submitted in May 2013. |
| 7.7. Dissemination format - other | Information is also disseminated in parts to fulfil user requests upon request through the NSO website. |
| 8. Comparability | |
| 8.1. Comparability - geographical | The AES manual is adhered to for the whole procedure and this enables geographical comparability among EU Member States, OECD Members and the EFTA countries. |
| 8.1.1. Asymmetry for mirror flow statistics - coefficient | Not applicable. |
| 8.2. Comparability - over time | Main results of AES 2011 are comparable to values for AES 2007. |
| 8.2.1. Length of comparable time series | The AES was only conducted twice up until now, for reference years 2007 and 2011. It is to be conducted again for reference year 2015. |
| 8.3. Comparability - domain | Comparison of AES results with the data collected in LFS is possible albeit different methodological procedures exist between the two sources for the computation of statistics of formal and non-formal education (refer to point 9.1). |
| 9. Coherence | |
| 9.1. Coherence - cross domain | The rate of participation in formal and non-formal learning resulted to be much higher in the AES than in the LFS. This may be attributed to the fact that the reference period for the LFS is 4 weeks whereas that of the AES is one year. Furthermore, proxy answers are more likely in LFS as this is a household survey compared with AES which specifically targeted the individual.

In terms of the distribution of respondents by completed level of education, the distributions of both surveys are fairly in line. |

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| 9.1.1. Coherence - sub annual and annual statistics | Not applicable. |
| 9.1.2. Coherence - National Accounts | Not applicable. |
| 9.2. Coherence - internal | Not applicable. |
| 10. Cost and Burden | Two full-time statisticians are involved in the collection of the AES data while one statistician is necessary to carry out the analysis of results. Other major costs associated with this survey mainly included payments to interviewers.<br><br>In order to reduce burden on respondents, the household income is derived from administrative sources. These sources include the IRD (Inland Revenue Department and SABS data (Database for social security services). The individuals ID (Identity) number is used for linking, and the income is retrieved for each and every individual living in the household. This is then summed up in order to determine the household income. |
| 11. Confidentiality | |
| 11.1. Confidentiality - policy | Each person working at NSO undertakes a form of oath, whereby he/she commits themselves to assuring the confidentiality of respondents. Confidentiality forms part of the European Statistics Code of practice, to which NSO adheres to throughout the production of statistics. Provisions for this are also made in the Malta Statistics Authority Act (2000). Such information can be found using the following link : http://nso.gov.mt/en/nso/About_NSO/Pages/NSO-Policies.aspx. |
| 11.2. Confidentiality - data treatment | Statistics based on few readings are not published due to quality considerations - under-represented data (due to small sample size) and data not reliable (due to small sample representation) are flagged before being released.<br><br>On the other hand in the event that fewer than 3 counts are encountered this data is not shown to safeguard the confidentiality of respondents.<br><br>At Eurostat level, data is fully anonymised using appropriate statistical techniques before being disseminated to researchers upon their written request. |
| 12. Statistical processing | |
| 12.1. Source data | In its entirety, the data collected took place via face-to-face interviews with respondents. This is true with the exception of household income, which is derived from administrative sources: IRD and social security databases (see point 5.13). The reference year for income both from employment and social security is 2011. In using these two sources to retrieve household income, this put less burden on the respondents and data is more accurate and reliable. |
| 12.2. Frequency of data collection | The AES survey is carried out once in every 4 years. |

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| 12.3. Data collection | Data collection is carried out via face to face interviews, with the exception of very few interviews which where carried out on the phone. Before starting the data collection, the questionnaire is pilot tested with a convenience sample and interviewers attended a briefing session where they are informed about the survey and the methodology to be undertaken. |
| 12.4. Data validation | Each and every survey is checked and subsequently, data is inputted using a custom-made program with inbuilt validations. The dataset is checked for flow as well as benchmarked with other sources. |
| 12.5. Data compilation | Missing data is imputed for very few variables whereas for the rest of the variables, missing data is left as missing or no answer (coded as -1). <br><br> Data which is collected from this survey is grossed up using post-stratification weighting in order to derive population estimates and reduce the effect of non-response bias. The criteria used for the grossing up procedures are age group, sex and district of residence of respondent. Calibration is then used in order to correct the estimates and to match them to demographic data. |
| 12.6. Adjustment | None |
| 13. Comment | No further comments. |