



**An  
Phríomh-Oifig  
Staidrimh**

Central  
Statistics  
Office

**Standard SIMS Report:  
Adult Education Survey (AES)**



# Single Integrated Metadata Structure (SIMS) Report

**For**

## **Adult Education Survey (AES)**

This documentation applies to the reporting period:

**2024**

Last edited: 22/4/2024



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## 2. Introduction

The main purpose of the Adult Education Survey (AES) is to produce reliable participation rates in further education for the adult population. The survey produces figures on those who participated in further education broken down by gender, region, level of education, age, economic status and sectors and so on. It also explores how people access guidance on educational possibilities. It is also a source of information on the difficulties experienced by the adult population who wish to participate in education. It is carried out under EC Regulation 452/2008 and Commission Regulation 823/2010

## 3. Contact

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## 4. Metadata Update

### 4.1. Metadata last certified

22/4/2024

### 4.2. Metadata last posted

April 2024

### 4.3. Metadata last update

22/4/2024



## 5. Statistical Presentation

### 5.1. Data Description

The Adult Education Survey (AES) covers adults' participation in education and training (formal - FED, non-formal - NFE and informal learning - INF). The 2022 AES focuses on people aged 18-69. The reference period for the participation in education and training is the twelve months prior to the interview.

Information available from the AES is grouped around the following topics:

- Participation in formal education, non-formal education and training and informal learning
- Volume of instruction hours
- Characteristics of the learning activities
- Reasons for participating
- Obstacles to participation
- Access to information on learning possibilities and guidance
- Employer financing and costs of learning

### 5.2. Classification System

#### **Educational attainment**

For this report, the highest level of educational attainment details have been classified by the **National Framework of Qualifications (NFQ) classification**.

The NFQ was launched in 2003 and it is now the single structure mechanism for recognising all education and training in Ireland. All framework awards now have an NFQ Level, numbered from 1 to 10, which tells you about the standard of learning and an NFQ Award-Type which tells you about the purpose, volume and progression opportunities associated with a particular award. Quality and Qualifications Ireland (QQI) has responsibility to develop, promote and maintain the Irish NFQ. In this release educational attainment results are presented using a descriptive name and the corresponding NFQ levels.

For information on the NFQ see: [http://www.qqi.ie/Articles/Pages/National-Framework-of-Qualifications-\(NFQ\).aspx](http://www.qqi.ie/Articles/Pages/National-Framework-of-Qualifications-(NFQ).aspx)

#### **Field of education.**

The fields of education are based on the ISCED-F 2013 classification, further information can be found here: <http://uis.unesco.org/en/topic/international-standard-classification-education-isced>

**Economic activity** is classified by Principal Economic Status (PES). This is based on a single question in which respondents are asked what is their usual situation regarding employment

#### **Regional data**

The regional classifications in this release are based on the NUTS (Nomenclature of Territorial Units) classification used by Eurostat.

#### **NACE Industrial Classification.**

#### **Occupation Classification.**

The structured classification for occupations allows for jobs to be grouped together based on their similarity in terms of the skill level and skill specialization required. The CSO uses the UK SOC2010 as the primary classification used in collecting the data. ISCO-08 is then derived from UK SOC2010 for publication.

Further information regarding SOC 2010 is available at the following link: <http://www.cso.ie/shorturl.aspx/104>



### 5.3. Regional Breakdown of Results

Until Q4 2017, the NUTS3 regions corresponded to the eight Regional Authorities established under the Local Government Act, 1991 (Regional Authorities) (Establishment) Order, 1993, which came into operation on 1 January 1994 while the NUTS2 regions, which were proposed by Government and agreed by Eurostat in 1999, were groupings of those historic NUTS3 regions.

However, the NUTS3 boundaries were amended on 21<sup>st</sup> of November 2016 under Regulation (EC) No. 2066/2016 and have come into force from Q1 2018. These new groupings are reflected in the CSO publications from Q1 2018 onwards. The changes resulting from the amendment are that County Louth has moved from the Border to the Mid-East and what was formerly South Tipperary has moved from the South-East to the Mid-West, resulting in the new NUTS2 and NUTS3 regions:

Northern & Western NUTS2 Region		Southern NUTS2 Region		Eastern & Midland NUTS2 Region	
<b>Border</b>	Cavan	<b>Mid-West</b>	Clare	<b>Dublin</b>	Dublin City
	Donegal		Limerick City & County		Dun Laoghaire-Rathdown
	Leitrim		Tipperary		Fingal
	Monaghan				South Dublin
	Sligo				
<b>West</b>	Galway City	<b>South-East</b>	Carlow	<b>Mid-East</b>	Kildare
	Galway County		Kilkenny		Meath
	Mayo		Waterford City & County		Wicklow
	Roscommon		Wexford		Louth
		<b>South-West</b>	Cork City	<b>Midland</b>	Laois
			Cork County		Longford
			Kerry		Offaly
					Westmeath

A regional breakdown is provided for the estimated population of the State only. This is published classified by sex and age group and is aggregated to a NUTS 3 classification. This is a geographical classification which identifies Irish regions broken down as follows:

- Border
- Dublin
- Mid-West:
- West
- South-East
- Mid-East
- Midland
- South-West

### 5.4. Sector Coverage

The industry in which a person is engaged is determined (regardless of their occupation) by the main economic activity carried out in the local unit in which he or she works. The basis of the industrial classification is, in the case of employees, the business or profession of their employer and in the case of self-employed persons, the nature of their own business or profession.



In the AES, industry is coded using NACE – the General Industrial Classification of Economic Activities within the European Communities. The current version, NACE Rev. 2, is a 4-digit activity classification as defined in Council Regulation (EC) no 1893/2006. Fourteen NACE sub-categories are distinguished in this release.

NACE code description			
<b>Total</b>	All Sectors	<b>K-L</b>	Financial, insurance and real estate activities
<b>B-E</b>	Industry	<b>M</b>	Professional, scientific and technical activities
<b>F</b>	Construction	<b>N</b>	Administrative and support service activities
<b>G</b>	Wholesale and retail trade; repair of motor vehicles and motorcycles	<b>O</b>	Public Administration and defence; compulsory social security
<b>H</b>	Transportation and storage	<b>P</b>	Education
<b>I</b>	Accommodation and food service activities	<b>Q</b>	Human health and social work activities
<b>J</b>	Information and communication	<b>R-S</b>	Arts, entertainment, recreation and other service activities

## 5.5. Statistical Concepts and definitions

In the AES, information is collected on participation in three types of education, namely formal education, non-formal education and informal education. All three share the common attribute that the learning must be intentional.

### Formal Education

Formal education is defined as “education provided in the system of schools, colleges, universities and other formal educational institutions that normally constitutes a continuous ‘ladder’ of full-time education for children and young people, generally beginning at age five to seven and continuing up to 20 or 25 years old”. A learning activity is considered to be formal when:

- It is provided by an institution e.g. a system of schools, colleges, universities and other formal educational institutions. They are responsible for setting at least the:
  - teaching/learning method (predetermined).
  - learning schedule.
  - location in which the learning/teaching will take place.
- The programme of study must be recognised by the national authority.
- It has a theoretical duration of at least one semester/6 months.
- It generally is hierarchical in nature - a ladder style approach where one level must be completed before progressing to the next.
- It generally has admission requirements or have a registration process.

### Non-formal Education

Non-formal education refers to all organised learning activities outside regular or formal education which you participate in with the intention of improving your knowledge or skills in any area (including hobbies). A learning activity is considered to be non-formal when:

- It is provided by an institution e.g. a system of schools, colleges, universities and other formal educational institutions. They are responsible for setting at least the:
  - teaching/learning method (predetermined).
  - learning schedule.
  - location in which the learning/teaching will take place.
- The programme of study is does not lead to a nationally recognised qualification.
- It has a theoretical duration of under one semester/6 months.
- It is generally not hierarchical in nature - a ladder style approach where one level must be completed before progressing to the next.
- It may have admission requirements or have a registration process.





### **Lifelong learning**

Those who participate in lifelong learning are defined as those who participate in either formal or non-formal education and training. It is an important measure for European policy. A key aim of EU2020 is by 2020, an average of at least 15% of adults should participate in lifelong learning.

### **Informal Education**

It refers to activities that you have undertaken deliberately either at work or in your free time to improve your knowledge or skills. It can occur in the family, in the work place, and in the daily life of every person, on a self-directed, family-directed or socially directed basis. A learning activity is considered to be informal when:

- It is not provided by an institution. The individual determines what they will learn, when they will do it and where.
- The programme of study is generally does not lead to a nationally recognised qualification.
- It is generally not hierarchical in nature.
- There are no admission requirements or registration processes.

It generally refers to activities different from those compulsory activities (including self-study and homework) reported previously under formal and non-formal education.

### **Field of Education**

For those who reported that they had participated in formal education in the 12 months prior to interview were asked what subject(s) they studied. From this the field of education for formal education was derived.

Those who reported that they had participated in non-formal education and training in the 12 months prior to interview were asked to select the field of education for their most recent taught activity.

The fields of education are as follows:

- Generic programmes and qualifications
- Education
- Arts and humanities
- Social sciences, journalism and information
- Business administration and law
- Natural sciences, mathematics and statistics
- Information and Communication Technologies (ICT's)
- Engineering, manufacturing and construction
- Agriculture, forestry, fisheries and veterinary
- Health and welfare
- Services

Definitions as well as the list of variables covered are available in the 2022 AES implementation manual (<http://ec.europa.eu/eurostat/web/education-and-training/methodology>).

## **5.6. Statistical Unit**

The collection units are households containing at least one individual aged 25 to 69 years .

One eligible individual within the household was randomly select to participate in the AES. Eligibility for AES participation is based on:

- age - only those between 18 and 64 in the household are included in the random person generator
- educational status - only those who are not in continuous fulltime education are included.

The data in this report is published on an individual level.

## **5.7. Statistical Population**



The survey population is individuals living in private households. It therefore excludes individuals living in institutions or communal accommodation and persons of no fixed abode. The collection units are households containing at least one individual aged 25 to 69 years.

## **5.8. Reference Area**

Ireland excluding any offshore islands not connected by road.

## **5.9. Time Coverage**

The reference period is 2022.

## **5.10. Base period**

Not applicable.

## **6. Unit of Measure**

Data is reported in percentages.

## **7. Reference Period**

The reference period for the AES is the 12 months prior to the interview.  
The fieldwork for the 2022 AES took place from 1 July 2022 to 1 March 2023.

## **8. Institutional Mandate**

### **8.1. Legal Acts and other agreements**

Participation in AES is a statutory requirement from EU countries.  
The basic legal act for the AES is the Regulation (EC) No 452/2008 of 23 April 2008 and Commission Regulation 823/2010. It concerns the production and development of statistics on education and lifelong learning. The implementing regulation (EU) No 1175/2014 details the exact requirements for the specific AES for 2016. Ireland received a derogation to delay implementation until 2017 (2014/773/EU).

### **8.2. Data Sharing**

Microdata is sent to Eurostat as part of transmission requirements. Data is not shared at national level.

## **9. Confidentiality**

### **9.1. Confidentiality – policy**

All information supplied to the CSO is treated as strictly confidential. The Statistics Act, 1993 sets stringent confidentiality standards: Information collected may be used only for statistical purposes, and no details that might be related to an identifiable person or business undertaking may be divulged to any other government department or body.

These national statistical confidentiality provisions are reinforced by the following EU legislation: Council Regulation (EC) No 223/2009 on European statistics for data collected for EU statistical purposes. Further details are outlined in the CSO's Code of Practice on Statistical Confidentiality.

For more information on the CSO confidentiality policy please visit:  
<https://www.cso.ie/en/aboutus/lgdp/csodatapolicies/statisticalconfidentiality/>



## 9.2. Confidentiality – data treatment

Extreme precautions are taken to ensure that there are no violations of the confidentiality principle throughout the survey process. The laptops used by field staff in the data collection process are encrypted and contain several layers of password protection. Data collected each day is transferred to the CSO using a secure encrypted tunnel. Each night, the data collected that day is collated into a single zip file, encrypted and password protected. The file is then uploaded to a secure Secure File Transfer Protocol (SFTP) site at the dedicated call centre. This CSO then extracts this zip file to a secure CSO location for processing. Data is only published in aggregate form and care is taken to ensure that the data are aggregated to avoid the indirect identification of respondents. Confidentiality is also ensured within the anonymised microdata by using coded variables instead of original values for key characteristics. For example, age groupings are provided instead of single year of age. Rules applied for treating the datasets to ensure statistical confidentiality and prevent unauthorised disclosure.

### **For aggregate outputs:**

Cells under 30 observations are hidden

### **For micro-level outputs:**

Personal identifiers are removed and SDC processes are applied

## 10. Release Policy

### 10.1. Release Calendar

The date of dissemination of all statistics released by CSO can be found in the Release Calendar published in CSO.ie. This calendar is regularly updated.

### 10.2. Release calendar access

The release calendar can be accessed via the CSO website, [www.cso.ie](http://www.cso.ie), or directly from this link: <https://www.cso.ie/en/csolatestnews/releasecalendar/>

### 10.3. User access

In accordance with Principle 6 of the European Statistics Code of Practice all users of CSO statistics have equal access via the CSO website at the same time of 11 am. Any privileged pre-release access to any outside user is limited, controlled and publicised. In the event that leaks occur, pre-release arrangements are revised so as to ensure impartiality.

The CSO recognises that in very limited circumstances a business need for pre-release access may be substantiated. Any form of pre-release access is a privilege and a strict CSO pre-release access policy is adhered to for these special requests. The full pre-release access policy can be accessed at <https://www.cso.ie/en/aboutus/lqdp/csodatapolicies/csopolicyonpre-releaseaccess/>

The various results are published nationally in statistical release format as well as on the CSO website ([www.cso.ie](http://www.cso.ie)). Selected extracts from the results are posted on the CSO's data dissemination database, PxStat.

## 11. Frequency of Dissemination

Every 6 years.



## 12. Accessibility and clarity

### 12.1. News release

No news release is issued with the publication of the statistics.

### 12.2. Publications

The most recent version of the release can be found on the CSO website directly from this link:

<https://www.cso.ie/en/statistics/education/adulteducationsurvey/>

### 12.3. On-line database

The AES data can be downloaded in various formats from the CSOs main dissemination database, PxStat from this link <https://data.cso.ie/product/AES>

#### 12.3.1. AC1. Data tables -consultations

Not calculated.

### 12.4. Micro-data Access

No access to micro-data is made available.

### 12.5. Other

Aggregated file with all countries data available from Eurostat

Data is also available from the Eurostat database: <http://ec.europa.eu/eurostat/web/education-and-training/data/database>

#### 12.5.1. AC2. Metadata consultations

Not calculated.

### 12.6. Documentation on Methodology

Further information on the methodology used in the compilation of this release can be found in the CSO's methods page <https://www.cso.ie/en/methods/education/adulteducationsurvey/>

Link to Eurostat methodology document which sets the guidelines and standards for the AES can be found via this link- [https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Adult\\_Education\\_Survey\\_\(AES\)\\_methodology#:~:text=The%20AES%20provides%20an%20overview,months%20prior%20to%20the%20interview.](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Adult_Education_Survey_(AES)_methodology#:~:text=The%20AES%20provides%20an%20overview,months%20prior%20to%20the%20interview.)

#### 12.6.1. AC3 – Metadata completeness – rate

Not calculated.

### 12.7. Quality Documentation

For more information on the quality related to this release please consult the CSO's methods page <https://www.cso.ie/en/methods/education/adulteducationsurvey/>



Link to Eurostat methodology document which sets the guidelines and standards for the AES - [https://circabc.europa.eu/ui/group/d14c857a-601d-438a-b878-4b4cebd0e10f/library/285fa0f6-7ad7-4640-afb2-595f5b88c960?p=1&n=10&sort=modified\\_DESC](https://circabc.europa.eu/ui/group/d14c857a-601d-438a-b878-4b4cebd0e10f/library/285fa0f6-7ad7-4640-afb2-595f5b88c960?p=1&n=10&sort=modified_DESC)

## 13. Quality Management

### 13.1. Quality Assurance

#### Quality Management Framework

The CSO avails of an office wide Quality Management Framework (QMF). This framework allows all CSO processes and outputs to meet the required standard as set out in the European Statistics Code of Practice (ESCoP). The QMF foundations are based on establishing the UNECE's Generic Statistical Business Process Model (GSBPM) as the operating statistical production model to achieve a standardised approach to Quality Management. All and any changes implemented to CSO processes and outputs require adherence to the QMF.

### 13.2. Quality Assessment

A series of field audits are carried out each quarter to verify the quality of the individual data being collected. Interviewers receive regular feedback on the quality of the data they are producing and any unusual trends are highlighted and followed-up. Interviewers undergo training when first employed and regular meetings are held with field coordinators to ensure standards are maintained. Further training is also provided to interviewers where appropriate.

This is the only detailed source of information on adult educational and training activities providing an interesting insight into the difficulties which the adult population face in accessing education. Good feedback was received on the series of guidance variables from users.

Problems noted were:

- Differentiating between the three concepts of formal/non-formal/informal is difficult for respondents to understand conceptually and for interviewers to probe as well. The CLA 2022 document was useful; several images were extracted as showcards to help interviewers if they had to help a respondent at the door.
- Differentiating between the non-formal categories (course/guided on-the-job/workshop/private lesson) also caused some difficulties in the field. When respondents reported an activity as a course it would have to be corrected before the random generator kicked in to select the two non-formal events for further details.
- Recall bias cannot be ignored particularly for work-related training 12 months ago; and even more so when these are selected for the detailed questions (hours spent and costs).
- Some difficulties with LANGMOTHER and LANGUSED were identified during processing where they were both the same language, particularly when respondent had two mother tongues.
- Questions not directly related to adult educational experience caused some difficulty with interviewers and respondents (parental education/household income).
- The questions and associated categories could be quite long particularly in the guidance section.
- High response burden if respondent has had formal and non-formal activities in the past 12 months.

## 14. Relevance

### 14.1. User Needs

Not specified.

#### 14.1.1. Main National Users

- Department of Education and Skills
- SOLAS – National Skills Training Agency



- Other research centres and universities involved in education research
- National media
- The general public

#### 14.1.2. Principal External Users

- European Union/Eurostat
- OECD

### 14.2. User Satisfaction

There is no formal user satisfaction survey specific to the AES.

### 14.3. Data Completeness

There are 2 key precision requirements from Eurostat. Non-formal participation rate and formal participation rate.

The dataset transmitted covers all variables as requested in the AES legislation.

#### 14.3.1. Data Completeness rate

100%.

## 15. Accuracy and reliability

### 15.1. Overall accuracy

In addition to known sampling errors, any survey will be subject to other non-sampling errors (for example measurement errors arising from questions not capturing the desired information accurately). Non-sampling error is far more difficult to measure than sampling error and no formal estimate of non-sampling error is available in the AES. The overall accuracy of the disseminated statistics comply with the parameters determined by the Eurostat regulation

### 15.2. Sampling Error

AES is a survey so sampling error is present.

Estimation of sampling errors is calculated as follows:

- Standard Error =  $s / \sqrt{n}$  where  $s$  = standard deviation,  $n$  = sample size
- Coefficient of Variation =  $(\sqrt{\text{estimate of the sampling variance}}) / (\text{estimated value})$

#### 15.2.1. A1. Sampling error indicator

The coefficient of variation for non-formal participation is 2.1

Indicator	Estimated value of the indicator (weighted)	Coefficient of variation	Standard error	95% confidence interval	95% confidence interval	Number of respondents (net sample)
Participation rate in non-formal education and training, age 25-69 - %	47.8	2.1	1.00	45.8	49.7	1271



Full detailed information is published in Eurostat Quality report - [https://ec.europa.eu/eurostat/cache/metadata/en/trng\\_aes\\_12m0\\_esms.htm](https://ec.europa.eu/eurostat/cache/metadata/en/trng_aes_12m0_esms.htm)

### **15.3. Non-sampling Error**

In addition to known sampling errors, any survey will be subject to other non-sampling errors (for example measurement errors arising from questions not capturing the desired information accurately). Non-sampling error is far more difficult to measure than sampling error and no formal estimate of non-sampling error is available in the AES.

Information on the interviews is collected and analysed to help minimise non-sampling effects (including, for example, when interviews were conducted and their duration). This information is compared across the interview teams to ensure no unusual variation in interviewer performance exists.

#### **15.3.1. Coverage error**

The entire population at the time of the most recent IPEADS (Irish Population Estimates from Administrative Data Sources) frame in the country represented the full sampling frame for the AES.

##### **15.3.1.1. A2. Over coverage rate**

4.87%

##### **15.3.1.2. A3. Common units – proportion**

Not applicable.

#### **15.3.2. Measurement error**

No formal evaluation of sources of error is available, although measures are in place to minimise error.

- Comprehension errors – An effort is made to ensure that the terms used in the survey are clear and readily understood.
- Clear training - Members of the field staff are fully trained on the questionnaire.
- Governance of field staff - Information on the interviews is collected and analysed to help minimise non-sampling effects (including, for example, when interviews were conducted and their duration). This information is compared across the interview team to ensure no unusual variation in interviewer performance exists. Co-ordinators, as an additional check on the quality of the interviewer's work.

#### **15.3.3. Non-Response Error**

No imputation for non-response currently takes place on the AES either for entirely missing households or missing data for particular individuals.

As part of the weighting procedure, design weights were calibrated to population totals in age/sex/education.

##### **15.3.3.1. Unit non response rate**

61.4%



### 15.3.3.2. Item non response rate

<b>2022 AES variables with item non-response rates 10% and higher</b>	
Item non-response in relation to the relevant target population, i.e. depending on the variable the total population, the population participating in FED, in NFE, etc.	
Variable (according to the code book, e.g. HATLEVEL)	Item non-response rate (%)
HHINCOME	54.5
HATFIELD	38.8
JOBTIME	10.1
FEDNBHOURS	10.8
NFEPAIDVAL1	23.2
NFENBHOURS2	10.4
NFEPAIDVAL2	17.9

### 15.3.4. Processing error

Data capture errors: These errors are minimised by logic checks and limits on values that can be keyed for each question in the electronic questionnaire at the data collection point.

Questionnaire routing is used to ensure questions are only asked to relevant respondents e.g. unemployment questions are only asked to those who are unemployed.

Coding error: Checks are in place to minimise this risk, particularly with respect to industry (NACE) and occupational (ISCO) coding.

In the AES, interviewers collect a detailed description of the enterprise and occupation from respondents. The coding is conducted in-house at the CSO using an automated coding facility which is reviewed by a small team of coding experts.

This approach reduces subjectivity and coding error. Overall it increases the quality and standard of coding of these key variables.

Field of education data is likewise captured and coded in the field to the relevant classification. The codes assigned are then subsequently checked for quality purposes.

### 15.3.5. Model assumption error

Not applicable.

## 16. Timeliness and punctuality

### 16.1. Timeliness

The data was scheduled for release in April 2024 according to the information provided via the CSO Advance Release Calendar.

#### 16.1.1. TP1. Time lag – First results

There was no preliminary data released.

#### 16.1.2. TP2. Time lag – Final results

13 months.





## 16.2. Punctuality

The data was released in April 2024 according with the information provided via the CSO Advance Release Calendar.

### 16.2.1. TP3. Punctuality – Punctuality - delivery and publication

0 days

## 17. Comparability

### 17.1. Comparability – Geographical

Care must be taken when comparing the Irish data to the European data. The time coverage of the survey may be different for some countries. The data may also not be directly comparable because of the definition used for the person selected for the survey as Ireland selected those who were not in continuous full-time education.

The method of delivery of the survey also varied between countries. Further details can be found on the Eurostat website.

#### 17.1.1. CCI. Asymmetry for mirror flow statistics

Not applicable.

### 17.2. Comparability over time

The CSO has published lifelong learning data for 2003, 2008 and 2017 and care needs to be taken when comparing the results from the previous iterations and 2022:

#### Timing

The timing of the surveys is different. The 2003 survey was completed in Q2 (March-May), the 2008 survey was completed in Q3 (June-August), the 2017 survey was conducted between July and December 2017 and the 2022 survey was conducted from 1 July 2022 to 1 March 2023. This may have an effect on the results.

#### Respondents

The surveys are also not directly comparable because of the definition used of the person selected for the survey. In the 2003 survey, proxy responses were allowed while only direct responses to the questionnaire were allowed in the 2008 and 2017 survey.

In the 2008 survey all persons aged 25-64 were selected however in the 2017 survey only those who were not in continuous full-time education were surveyed.

The sample age increased to 69 from 64 for AES 2022

#### Different questions/question categories

The categories for some questions are different over the years.

For example, the question on informal learning only had four categories in 2003 (Professional books and magazines, Online internet based education, Educational broadcasting and offline computer material and Libraries and other information centres). In the 2008 survey there was an additional category added to the list (Other learning based on experience). In 2017, the informal education question was revised and had six categories to choose from:

- Learning from a family member, a friend or colleague.
- Learning by using printed material (books, professional magazines etc.).
- Learning by computers, tablets or smartphones (online or offline).
- Learning through television/radio/video's/DVD's.
- Learning by guided tours of museums or natural or industrial sites.
- Learning by visiting learning centres (including libraries).



## 2022 Changes -

The following major changes were introduced for the 2022 AES variables:

- The number of non-formal learning activities for which some details are collected is reduced from seven to five.
- Variables on e-learning and guidance are replaced by new or revised variables.
- A 'main' variable is added for all multiple-choice variables (such as reasons and outcomes of the learning activities), to increase the analytical value of these variables.
- New variables on motivation and skills gained are added for non-formal learning activities
- For a few variables, answer categories were revised, e.g. redundant categories dropped or new ones added.

### 17.2.1. Length of Comparable Time series

1 iteration.

## 17.3. Coherence – cross domain

The AES uses a different sample frame and methodology to Labour Force Survey (LFS). To meet the precision requirements, we used SRS (simple random sample) stratified only by age for AES. Thus, we just selected persons. LFS on the other hand selects households so you would gather data on all the household. The overall total figures do not seem to differ to LFS, just around 1-2% difference.

Coherence checks are carried out with auxiliary sources like Census of Population and LFS

### 17.3.1. Coherence – Sub annual and annual statistics

Not applicable.

### 17.3.2. Coherence with National Accounts

Not applicable.

## 17.4. Coherence – internal

AES results for a given data collection round are based on the same microdata and results are calculated using the same estimation methods, therefore the data are internally coherent.

## 18. Cost and Burden

There are no estimates of Cost or Burden for the AES.

## 19. Data Revision

### 19.1. Data Revision Policy

Published statistics are subject to correction and revision for a variety of reasons. The most common reasons include the receipt of additional information (for example, late survey responses) and updated seasonal factors. Occasional revisions also occur as a result of changes to definitions, methodology, classifications and general updating of statistical series.



It is recognised internationally that the existence of a sound revisions policy maintains credibility in official statistics. The CSO General Revisions Policy, which details how revisions should be managed and communicated to users, outlines the three main types of revisions:

- Planned Routine Revisions
- Planned Major Revisions
- Unplanned Revisions.

One reason for unplanned revisions occurring can be when errors are detected after publication. The 'CSO Error Correction Policy – How to deal with Publication Errors' outlines the steps taken when these errors are detected. As required under Principle 6.3 of the European Statistics Code of Practice, errors detected in published statistics are corrected at the earliest possible date and users are informed. An important step in the process is the documentation and analysis of errors that have occurred and their causes. This allows the CSO to take measures preventing similar errors from occurring in the future and uniformity in dealing with them when they do.

The data revision policy that CSO statistics adheres to can be found via the following link:

<https://www.cso.ie/en/methods/quality/treatmentofrevisions/>

## **19.2. Data Revision Practice**

Not applicable.

### **19.2.1. Data Revision – Average size**

Not applicable.

## **20. Statistical processing**

### **20.1. Source Data**

Information is collected from individuals in households using questionnaires. The mode of collection varies between CAPI (Computer Aided Personal Interview) and CAWI (Computer Assisted Web Interviewing)

#### **20.1.1. Population and sampling frame**

The frame used is IPEADS (Irish Population Estimates from Administrative Data Sources) which is a combination of multiple administrative data sources.

#### **20.1.2. Sampling design**

An SRS (simple random sample) of persons was selected stratified by the precision age-groups.

#### **20.1.3. Survey size**

12,000 persons

#### **20.1.4. Survey technique**

Interviewer or CAWI based interview in one sitting.

### **20.2. Frequency of data collection**

Continuous for 6 months once every 6 years.

### **20.3. Data Collection**



The data was collected by a team of 100 Field Interviewers and 10 Field coordinators. Interviewers were provided with a map of each of their interview areas as well as a listing of the address of each of the selected persons.

Interviewers were trained June 2022 on the main concepts (formal, non-formal and informal education definitions) of the AES. Additionally, the interviewers were experienced, as they were currently working on CSO surveys such as the Survey on Income and Living Conditions and LFS. Interviewers received a manual with information such as detailed explanations about the questionnaire, definitions of the concepts involved and examples.

Most of the survey fieldwork was conducted using a team of face-to-face interviewers using Computer Assisted Personal Interviewing (CAPI). This enabled the use of extensive checks in the BLAISE interviewing software to make sure correct and coherent data was collected. It also ensured that respondents were only asked relevant questions and specific answers were within valid ranges. Questionnaire routing is used to ensure questions are only asked to relevant respondents e.g., unemployment questions are only asked to those who are unemployed. In addition, invalid responses are prevented at the point of capture where appropriate (for example a flag is raised to an interviewer if the date of birth captured implied a derived age of more than 110) and this ensures that implausible data is prevented from being captured. Information was collected directly from respondents - proxy responses from other members of the household were not accepted.

### **20.3.1. Type of Survey/Process**

Questionnaire based Sample Survey

### **20.3.2. Questionnaire (including explanations)**

Eurostat AES working group design the survey questionnaire after feedback from various stakeholders. The questionnaire itself can be viewed from this link:

<https://www.cso.ie/en/methods/surveyforms/adulteducationsurvey/>

### **20.3.3. Survey Participation**

Voluntary.

### **20.3.4. Data Capture**

Some interviews were collected via CAWI (computer assisted web-interview). Due to the challenging data collection environment we offered CAWI option to participants who were 'soft refusals' that we were unable to convert using CAPI.

## **20.4. Data Validation**

Most of the survey questions only allow answers to be entered to a limited set of predefined categories and therefore the number of edits required is limited. The most significant data editing done is the quality checking review of the industry and occupation coding.

Coherence checks to previous AES and other data sources

Once the data was back in the CSO it was checked and if necessary queried with the field force. After the data collection phase was complete the field data was aggregated together.

Finally, the data checking tool (STRUVAL/CONVAL) provided by Eurostat has been used for the data set checks just before transmitting the data to Eurostat.

## **20.5. Data Compilation**



All aggregation and derivation processes were applied as per Eurostat methodology.

### **20.5.1. Imputation (for Non-Response or Incomplete Data Sets)**

No imputation was carried out for the AES.

#### **20.5.1.1. A7. Imputation rate**

Not applicable.

### **20.5.2. Grossing and Weighting**

To provide national results, the survey results were weighted to represent the entire population. The process used was as follows:

- Design weights were calculated for all units selected in the initial sample and are computed as the inverse of the selection probability of the unit. The purpose of design weights is to eliminate the bias induced by unequal selection probabilities.
- To obtain the final weights for the results, after the previous steps were carried out, the distribution of persons, NUTS 3 region, highest level of educational attainment, sex and age was calibrated to the population of households in Q2 2022 LFS. The CALMAR2-macro, developed by INSEE, was used for this purpose.

## **20.6. Adjustment**

Not applicable.

### **20.6.1. Seasonal Adjustment**

Not applicable.

## **21. Comment**

The Central Statistics Office wishes to thank the participating households for their co-operation in agreeing to take part in the Adult Education Survey and for facilitating the collection of the relevant data.