





# Single Integrated Metadata Structure (SIMS) Report

# For

# **Structure of Earnings Survey**

This documentation applies to the reporting period: **2022** 

Last edited: 28/11/2023



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# 2. Introduction

The Structure of Earnings Survey (SES) is a nationwide survey of Irish employees conducted by the Central Statistics Office (CSO). The results of the SES 2022 presented in this publication relate to mean and median hourly earnings across the economy. Tables are provided by sector of activity, firm size, length of service, occupation, education, age and other factors that go towards explaining differences in rates of hourly pay. The survey covers both public and private sectors. The only excluded sectors are Agriculture, forestry and fishing.

The purpose of the SES is to provide detailed structural information on earnings and factors influencing earnings. The SES is carried out on a four yearly basis and has been designed as an integrated survey that addresses issues of national interest while simultaneously fulfilling requirements under EU regulation (EC) No 530/1999. Data on the structure of earnings has been provided to Eurostat for the reference years 2002, 2006, 2010, 2014 and 2018. However, the methodology over this time period has lacked consistency so comparisons between SES years are not directly comparable and should be interpreted with this in mind. This is the first year the CSO is publishing the results of the survey.

# 3. Contact

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# 4. Metadata Update

## 4.1. Metadata last certified

29/10/2025.

#### 4.2. Metadata last posted

November 2025

#### 4.3. Metadata last update

29/10/2025



## 5. Statistical Presentation

## 5.1. Data Description

The Structure of Earnings Survey (SES) is a 4-yearly survey that provides EU-wide harmonised structural data on gross earnings, hours paid and annual days of paid holiday leave, which are collected under Council Regulation (EC) No 530/1999 concerning structural statistics on earnings and on labour costs, and Commission Regulation (EC) No 1738/2005 amending Regulation (EC) No 1916/2000 as regards the definition and transmission of information on the structure of earnings. This large data collection represents a reach data source for policy-making and research purposes.

The SES provides detailed and comparable information on relationships between the level of hourly, monthly and annual remuneration, personal characteristics of employees (sex, age, occupation, length of service, highest educational level attained, etc.) and their employer (economic activity, size and economic control of the enterprise).

#### 5.2. Classification System

There are a number of classifications used in the SES:

- The "economic activity" is coded in NACE Rev. 2 (General industrial classification of economic activities within the European Communities).
- Occupation is coded according to the Commission Recommendation of 29 October 2009 on the use of the International Standard Classification of Occupations (ISCO-08).
- Information on the 'Highest successfully completed level of education and training' variable is classified using the International Standard Classification of Education, 2011 version (ISCED11).

#### 5.3. Sector Coverage

The statistics cover all economic activities defined in NACE Rev. 2 sections B to S.

The enterprises size classes (corresponding to the number of employees) available are 1 to 9, 10 to 49, 50 to 249, 250 to 499, 500 to 999 and more than 1 000.

## 5.4. Statistical Concepts and definitions

*Employees* are all persons who have a direct employment contract with the enterprise or local unit and receive remuneration, irrespective of the type of work performed, the number of hours worked (full or part-time), and the duration of the contract (fixed or indefinite).

Mean annual gross earnings also cover all 'non-standard payments', i.e. payments not occurring in each pay period, such as 13th or 14th-month payments, holiday bonuses, quarterly or annual company bonuses, and annual payments in kind.

Mean monthly gross earnings in the reference month cover remuneration in cash paid before any tax deductions and social security contributions payable by wage earners and retained by the employer and are restricted to gross earnings which are paid in each pay period during the reference month.

*Mean hourly gross earnings* are defined as gross earnings in the reference month divided by the number of hours paid during the same period.

The number of hours paid includes all normal and overtime hours worked and remunerated by the employer during the reference month. Hours not worked but nevertheless paid are counted as 'paid hours' (e.g. for annual leave, public holidays, paid sick leave, paid vocational training, paid special leave, etc.). For further details on the variables collected in SES (in particular the definitions) please consult Council Regulation (EC) No 530/1999 concerning structural statistics on earnings and on labour costs, and Commission Regulation (EC) No 1738/2005 amending Regulation (EC) No 1916/2000.



#### 5.5. Statistical Unit

The statistical unit is both the enterprise and the employees within that enterprise.

#### 5.6. Statistical Population

The statistical population comprises all employees of enterprises with 1 or more employees operating in Ireland under activities defined in NACE Rev.2. Sectors B to S.

#### 5.7. Reference Area

Ireland

## 5.8. Time Coverage

The SES has been transmitted by the CSO to Eurostat since 2002 and every 4 years hence. However, SES 2022 is the first instance that the CSO has published the survey.

# 5.9. Base period

Not Applicable

## 6. Unit of Measure

Monetary earnings figures are expressed in Euro. Time variables are expressed in hours. Gender pay gap is a proportion.

## 7. Reference Period

The annual figure compiled represents values complied for reference month October 2022.

# 8. Institutional Mandate

## 8.1. Legal Acts and other agreements

The Structure of Earnings Survey (SES) in the European Union is based on the following regulations:

- 1. European Framework Regulation (EC) No. 530/1999 of March 9, 1999 concerning structural statistics on earnings and on labour costs.
- 2. Commission Regulation (EC) No 1738/2005 of 21 October 2005 amending Regulation (EC) No 1916/2000 as regards the definition and transmission of information on the structure of earnings.
- 3. Regulation 698/2006 of 5 May 2006 implementing Regulation 530/1999 as regards quality evaluation of structural statistics on labor costs and earnings.

The following statutory instrument is in placeat national level for data collection:

4. S.I. No. 368/2019 - Statistics (Structure Of Earnings Survey) Order 2019

These regulations provide the legal basis for the SES every 4 years, which aims to provide accurate data comparable across countries and over time on earnings.

#### 8.2. Data Sharing

Data collected by CSO is not shared with other Departments. The administrative data used by CSO for the compilation of these statistics is received via the Administrative Data Centre.



# 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: <a href="https://www.cso.ie/en/aboutus/lgdp/csodatapolicies/statisticalconfidentiality/">https://www.cso.ie/en/aboutus/lgdp/csodatapolicies/statisticalconfidentiality/</a>

#### 9.2. Confidentiality – data treatment

Before performing any statistical analysis, the CSO removes all identifying personal information including the Personal Public Service Number (PPSN). The PPSN is a unique number that enables individuals to access social welfare benefits, personal taxation and other public services in Ireland. The CSO converts the PPSN to a Protected Identifier Key (PIK). The PIK is an encrypted and randomised number used by the CSO to enable linking of records across data sources and over time which is internal to the CSO. Using the PIK enables the CSO to link and analyse data for statistical purposes, while protecting the security and confidentiality of the individual data.

Age is calculated from year of birth (specific date of birth is not on the dataset).

Other characteristics such as Occupation, highest level of education etc. are reported at a grouped level.

# 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, 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 <a href="https://www.cso.ie/en/aboutus/lgdp/csodatapolicies/csopolicyonpre-releaseaccess/">https://www.cso.ie/en/aboutus/lgdp/csodatapolicies/csopolicyonpre-releaseaccess/</a>

The various results are published nationally in statistical release format on the CSO website (<u>www.cso.ie</u>). Selected extracts from the results are posted on the CSO's data dissemination database PxStat.



# 11. Frequency of Dissemination

Every 4 years.

# 12. Accessibility and clarity

#### 12.1. News release

Not Applicable.

#### 12.2. Publications

This is the first year that the CSO has released a publication on the SES. This release can be found through the following link: <a href="https://www.cso.ie/en/releasesandpublications/ep/p-ses/structureofearningssurvey2022/">https://www.cso.ie/en/releasesandpublications/ep/p-ses/structureofearningssurvey2022/</a>

#### 12.3. On-line database

Data from the Structure of Earnings Survey is available in various formats via the CSO's main dissemination database PxStat. The tables can be accessed directly through this link: <a href="https://data.cso.ie/product/SES">https://data.cso.ie/product/SES</a>

#### 12.3.1. AC 1. Data tables -consultations

Not calculated.

#### 12.4. Micro-data Access

An anonymized microdata research file is made available through the CSO's Research Coordination Unit where approved researchers can apply for access and conduct additional analysis

Micro-data access is available through Eurostat. The 4-yearly SES microdata sets are available for reference years 2002, 2006, 2010, 2014, and 2018 with 2022 due to be available Q4 2024. More information is available here: <a href="https://ec.europa.eu/eurostat/web/microdata/structure-of-earnings-survey">https://ec.europa.eu/eurostat/web/microdata/structure-of-earnings-survey</a>

# 12.5. Other

Eurostat publish SES data on their website and the SES feeds into the publication *Wage determinants in the European Union*: <a href="https://ec.europa.eu/eurostat/web/products-statistical-reports/-/ks-ft-21-004">https://ec.europa.eu/eurostat/web/products-statistical-reports/-/ks-ft-21-004</a>

#### 12.5.1. AC2. Metadata consultations

Not calculated.

## 12.6. Documentation on Methodology

Further documentation on the methodology used to compile this release can be found in the CSO methods page directly from this link: <a href="https://www.cso.ie/en/methods/earnings/structureofearningssurvey/">https://www.cso.ie/en/methods/earnings/structureofearningssurvey/</a>

#### 12.6.1. AC3 - Metadata completeness - rate

Not calculated.



## 12.7. Quality Documentation

For more information on the quality of the Labour Force Survey please refer to the CSO's Methods page on <a href="https://www.cso.ie/en/methods/earnings/structureofearningssurvey/">https://www.cso.ie/en/methods/earnings/structureofearningssurvey/</a>

# 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 OMF.

The CSO subscribes fully to the principles set out in the European Statistics Code of Practice and to the UN Fundamental Principles of Official Statistics.

The Quality Policy for the Office is set out in "Standards and Guidelines, Volume 1 (Quality in Statistics)" which is available on the CSO website. It provides information and recommendations on best practice and contains clear guidelines to ensure that the quality of our processes and outputs are of the highest standard. The policy document can be accessed at:

https://www.cso.ie/en/media/csoie/methods/A\_Handbook\_of\_Quality\_Standards\_and\_Guidelines\_2021.pdf

# 13.2. Quality Assessment

#### 14. Relevance

# 14.1.User Needs

The main user needs are a breakdown of average earnings (hourly, weekly, annual) in the main Classifications e.g. NACE, Occupation etc.; Median earnings and Gender Pay Gap requirements.

Researcher's main needs are analysis of the Research Microdata files (RMFs) for macroeconomic research. Extensive research has been published from RMFs for the previous versions of this data (National Employment Survey (NES)) on Gender; Nationality; Public/Private Wage Gap; Earnings levels in the economy; etc.

Researchers are assisted with infrastructural support to work on the RMFs. Staff in the Labour Market and Earnings Division and the Research Coordination Unit (RCU) liaise with the researchers and provide technical support. Researchers are very satisfied with the level of support and a large body of research has been carried out by researchers involved in policy issues and macroeconomic research. Most researchers renew their access to the RMFs on an annual basis.

# 14.1.1. Main National Users

The main users of the SES survey are the following:

- Government Departments
- Research institutes e.g. ESRI, Universities, academics
- Professional Bodies (e.g. Trade Unions)
- The general public
- Trade Unions



· Other CSO sections

### 14.1.2. Principal External Users

- European Union/Eurostat
- International Organisations e.g. OECD, UN ILO

#### 14.2. User Satisfaction

Not measured.

#### 14.3. Data Completeness

SES microdata are checked for completeness at a micro level. All the obligatory variables required by Eurostat regulations are provided.

There are certain variables which are not published but required by Eurostat. These include for example annual leave, earnings related to overtime and current length of service in enterprise.

#### 14.3.1. Data Completeness rate

100%.

# 15. Accuracy and reliability

## 15.1.Overall accuracy

The accuracy of the SES is described in the individual subsections for this concept.

# 15.2. Sampling Error

The SES sample of employees was selected from the Earnings Analysis using Administrative Sources (EAADS). The EAADS dataset was stratified based on economic sector, gender and ten earnings bands from which the sample in each stratum was selected.

#### 15.2.1. A1.Sampling error indicator

Standard error and coefficients of variation for average monthly and hourly earnings							
Earnings	Mean	SE	CV				
Monthly	3,711.14	2.14	0.89				
hourly	26.40	0.01	0.87				

## 15.3. Non-sampling Error

#### 15.3.1. Coverage error

The EAADS dataset upon which the frame is created had been cleared of duplicates in advance of the SES therefore no over coverage applies.

This analysis is for PAYE individuals only. It does not include any analysis of self-employed earnings. There is a restriction to employments active in October only. In line with Eurostat requirements relating to Structure of Earnings Statistics (in particular Council Regulation (EC) No 530/1999) the data used for this analysis has been restricted to employments that were active in the month of October.

Up to 2018, employments active in October were identified using employment start and end dates on the P35 data. For 2022, active employments are identified by reference to pay dates in the reference month using data from Revenue's PMOD system.

#### 15.3.1.1. A2. Over coverage rate

Not estimated.

#### 15.3.1.2. A3. Common units - proportion

The information required was divided into that most suitable to collect from employees (e.g., hours worked, age, full-time/part-time status, educational attainment etc.) and information best sourced from administrative data sources (e.g. weekly earnings, public/private sector status etc.) such as Earnings Analysis using Administrative Data Sources (EAADS).

#### 15.3.2. Measurement error

Measurement errors were mitigated by sending the selected employees instructions on how to complete the survey. The errors were not quantified.

#### 15.3.3. Non-Response Error

The employees survey generated a sizeable rat of non response. No analysis was carried out on the most common causes of non response.

#### 15.3.3.1. Unit non response rate

Response Rate for Structure of Earnings Survey 2022					
Employee survey					
Effective Sample	38,475				
Number of returns	14,972				
Non-responding employees	23,503				
Response rate	38.9%				

#### 15.3.3.2. Item non response rate

Not calculated.

# 15.3.4. Processing error

Not calculated.

#### 15.3.5. Model assumption error

Not applicable.

# 16. Timeliness and punctuality

#### 16.1.Timeliness

Information for the SES survey can only be collected after the reference year is over. To allow for the information to be collected, questionnaires are issued a few months after the end of the reference year and further time is allowed for the analysis of the data and the compilation of the results. Collection of information via administrative data sources does not translate in a smaller timeliness indicator.



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

Not applicable.

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

T+10 months.

#### 16.2. Punctuality

The SES statistics were published on time in accordance with the date specified in the CSO's advance release calendar.

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

0 days.

# 17. Comparability

## 17.1.Comparability - Geographical

Not applicable.

#### 17.1.1. CC1. Asymmetry for mirror flow statistics

Not applicable.

# 17.2. Comparability over time

In 2022, only employees who were active in October are included, whereas all employees who were active over the whole year in 2018 are included in SES 2018. The reference month for 2022 is October whereas the reference month for 2018 is an average month (based on all 12 months).

The month October is the preferred reference month as it is less affected by factors such as temporary/ seasonal work, annual leave or public holidays and is seen to be most representative of a typical month.

#### 17.2.1. Length of Comparable Time series

2018 and 2022

# 17.3. Coherence – cross domain

Aggregates are checked at a macro level against other statistics to ensure coherence.

# 17.3.1. Coherence - Sub annual and annual statistics

Coherence checks are done with the Earnings and Labour Cost Survey and the Labour Force Survey.

#### 17.3.2. Coherence with National Accounts

Not calculated.

### 17.4. Coherence – internal

All disseminated tables are coherent



### 18. Cost and Burden

Estimates of Cost and Burden can be obtained from the Response Burden Barometer <a href="https://www.cso.ie/en/statistics/multisectoral/responseburdenbarometer/">https://www.cso.ie/en/statistics/multisectoral/responseburdenbarometer/</a>

Survey specific information is available via CSO's dissemination database PxStat. <a href="https://data.cso.ie/product/RBB">https://data.cso.ie/product/RBB</a>

## 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: <a href="https://www.cso.ie/en/methods/quality/treatmentofrevisions/">https://www.cso.ie/en/methods/quality/treatmentofrevisions/</a>

# 19.2. Data Revision Practice

SES data are not revised.

#### 19.2.1. Data Revision - Average size

Not applicable.

# 20. Statistical processing

# 20.1. Source Data

The raw data consists of a combination of survey and administrative data. The breakdown in the following sections provides more detailed information on the data sources.

#### 20.1.1. Population and sampling frame

The SES sample of employees was selected from the Earnings Analysis using Administrative Sources (EAADS).



#### 20.1.2. Sampling design

The EAADS dataset was stratified based on economic sector, gender and ten earnings bands from which the sample in each stratum was selected. The sample size for each stratum had to be a minimum of ten or a census of the stratum if the count was below ten.

A stratified sample of employees based on a set criteria was selected from the EAADS dataset which acts as a population census of employees or sampling frame.

In addition, sectors where there was a high variance for earnings and/or had a previously low response rate had more employees included in the survey.

#### 20.1.3. Survey size

A total of 38,475 employees were surveyed.

#### 20.1.4. Survey technique

Employees selected in the sampling process were identified by the CSO through their PPS number and contacted via a letter containing instructions on how to complete the survey. This survey was distributed electronically via a link to sampled employees who were provided with a password to access the survey.

# 20.2. Frequency of data collection

Every 4 years.

#### 20.3. Data Collection

Information on this topic is broken down into the sub sections below:

#### 20.3.1. Type of Survey/Process

Multi source, including survey and administrative data.

#### 20.3.2. Questionnaire (including explanations)

The employees were asked to supply information such as age, gender, educational attainment, nationality, length of time in paid employment, and other job-related characteristics. A link to the questionnaire is not available.

#### 20.3.3. Survey Participation

Under the Statutory Instrument participation in the survey is mandatory.

#### 20.3.4. Data Capture

Data was collected via electronic questionnaire and transferred securely to the CSO's internal servers for processing.

#### 20.4. Data Validation

The results of the SES are checked internally at both a micro and macro level to ensure their coherence. Response rates by sector are considered. Coefficients of variations are calculated to measure variability in key indicators. The results also undergo a series of validation checks with Eurostat.



# 20.5. Data Compilation

For the non-SES years, the Gender Pay Gap (GPG) is calculated by imputing average total weekly paid hours from economic sector along with full-time/part-time status from the Earnings Hours and Employment Costs Survey (EHECS) onto the EAADS dataset. These figures are then transmitted to Eurostat. Some variances between the GPG figures sent to Eurostat and those published by the CSO can be explained by the inclusion of all firm sizes and economic sector O Public Administration in the SES/GPG figures published by the CSO. Whereas firm size 1-9 and economic sector O are excluded from the figures transmitted to Eurostat. Another part is explained by the differences in the methodologies used for SES and non-SES years as discussed above.

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

No imputation was carried out.

#### 20.5.1.1. A7. Imputation rate

Not applicable..

#### 20.5.2. Grossing and Weighting

Survey responses to the SES were weighted to the population of employees recorded by EAADS. The weights were calculated by calibrating the survey responses to the count totals and weekly gross income totals from EAADS by sector, firm size, age group, public/private status, sex, nationality group and region of residence. The weight is a product of a design weight based on the stratification of the sample on the sampling frame and a calibration-weight based on post-stratification non-response adjustment resulting from the survey responses. This approach takes into account as fully as possible the characteristics of the sample observations in terms of auxiliary variables and their known totals.

The employee total and calibration totals are those as measured by the EAADS in 2022.

#### 20.6. Adjustment

Not applicable.

# 20.6.1. Seasonal Adjustment

Not applicable.

#### 21. Comment