



**An  
Phríomh-Oifig  
Staidrimh**

Central  
Statistics  
Office

**Standard SIMS Report:  
Annual Services Inquiry**



# **Single Integrated Metadata Structure (SIMS) Report**

**For**

# **Annual Services Inquiry**

This documentation applies to the reporting period:

**2020**

Last edited: 18/10/2022



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## 2. Introduction

The Annual Services Inquiry (ASI) has been conducted on an annual basis since 1991. The purpose of the survey is to provide estimates of the principal trading aggregates for all enterprises in the retail, wholesale, transportation and storage, accommodation and food, information and communication, real estate, professional, scientific, technical, administrative and other selected services sectors.

## 3. Contact

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## 4. Metadata Update

### 4.1. Metadata last certified

18/10/2022

### 4.2. Metadata last posted

20/10/2022

### 4.3. Metadata last update

18/10/2022



## 5. Statistical Presentation

### 5.1. Data Description

The main characteristics (variables) of the ASI data category are:

Business demographic variables (e.g. Number of enterprises)

- "Output related" variables (e.g. Turnover, Value added)
- "Input related" variables: labour input (e.g. Employment, Hours worked); goods and services input (e.g. Total of purchases); capital input (e.g. Material investments)

### 5.2. Classification System

Published results are aggregated by the type of activity (NACE), region, size class etc.

NACE Rev.2 Classifications is used to classify the companies by activity.

The regional breakdown of the EU Member States is based on the Nomenclature of Territorial Units for Statistics (NUTS). Detailed information about the consecutive NUTS Regulations can be found at [Eurostat's website](#)

### 5.3. Sector Coverage

The survey covers all enterprises in the Retail, Wholesale, Transportation & Storage, Accommodation & Food, Information & Communication, Real Estate, Professional, Scientific, Technical, Administrative and Other Selected Services sectors (NACE Rev.2 sectors G, H, I, J, L, M, N, divisions 92, 93, 95 and 96).

### 5.4. Statistical Concepts and definitions

The principal variables collected are Turnover, Stocks, Capital Assets, Personnel Costs, Purchases, Employment, Location of Ownership, etc. Their definitions are broken down below into input related and output related variables.

#### "Input related" variables

- **Number of persons employed/engaged** is defined as the total number of persons who work in the observation unit (inclusive of working proprietors, partners working regularly in the unit and unpaid family workers), as well as persons who work outside the unit who belong to it and are paid by it (e.g. sales representatives, delivery personnel, repair and maintenance teams). It excludes manpower supplied to the unit by other enterprises, persons carrying out repair and maintenance work in the enquiry unit on behalf of other enterprises, as well as those on compulsory military service.
- **Number of employees** is defined as those persons who work for an employer and who have a contract of employment and receive compensation in the form of wages, salaries, fees, gratuities, piecework pay or remuneration in kind. A worker from an employment agency is considered to be an employee of that temporary employment agency and not of the unit (customer) in which they work.
- **Total purchases of goods and services** include the value of all goods and services purchased during the accounting period for resale or consumption in the production process, excluding capital goods (the consumption of which is registered as consumption of fixed capital).
- **Personnel costs** are defined as the total remuneration, in cash or in kind, payable by an employer to an employee (regular and temporary employees as well as home workers) in return for work done by the latter during the reference period. Personnel costs also include taxes and employees' social security contributions retained by the unit as well as the employer's compulsory and voluntary social contributions. Personnel costs are made up of wages and salaries and employers' social security costs
- **Gross investment in tangible goods** is defined as investment during the reference period in all tangible goods. Included are new and existing tangible capital goods, whether bought from third parties or produced for own use (i.e. Capitalised production of tangible capital goods), having a useful life of more than one year including non-produced tangible goods such as land. Investments in intangible and financial assets are excluded.



#### "Output related" variables:

- **Turnover** comprises the totals invoiced by the observation unit during the reference period, and this corresponds to market sales of goods or services supplied to third parties; it includes all duties and taxes on the goods or services invoiced by the unit with the exception of the VAT invoiced by the unit to its customer and other similar deductible taxes directly linked to turnover; it also includes all other charges (transport, packaging, etc.) passed on to the customer. Price reductions, rebates and discounts as well as the value of returned packing must be deducted.
- **Production value** measures the amount actually produced by the unit, based on sales, including changes in stocks and the resale of goods and services. The production value is defined as turnover, plus or minus the changes in stocks of finished products, work in progress and goods and services purchased for resale, minus the purchases of goods and services for resale, plus capitalised production, plus other operating income (excluding subsidies). Income and expenditure classified as financial or extra-ordinary in company accounts is excluded from production value.
- **Value added at factor costs** is the gross income from operating activities after adjusting for operating subsidies and indirect taxes. Value adjustments (such as depreciation) are not subtracted.

### 5.5. Statistical Unit

The ASI is an enterprise survey, where an enterprise is defined as the smallest legally independent unit.

### 5.6. Statistical Population

All enterprises with 2 or more persons engaged in NACE Rev.2 sectors G, H, I, J, L, M, N, divisions 92, 93, 95 and 96 are included in the survey frame. However, the units with 1 person or less persons engaged are not surveyed; the data for those are imputed directly from administrative data sources.

Enterprises that traded for at least 6 months in the reference year are included in the survey.

Branches of foreign enterprises are included, if they represent separate entities in administrative sources. Activities of branches of enterprises that are registered as separate companies abroad are excluded, however, activities of Irish-registered companies abroad are included.

### 5.7. Reference Area

The reference area covered by this data refers to the Republic of Ireland.

The regional classifications are based on the Nomenclature of Territorial Units (NUTS) classification used by Eurostat. The boundaries were amended on 21st of November 2016 under Regulation (EC) No. 2066/2016 and have come into force from 2018. The new breakdown has three regions the counties constituting each of the regions are listed below:

#### **Northern & Western Region**

Cavan, Donegal, Leitrim, Monaghan, Sligo, Galway City, Galway County, Mayo and Roscommon.

#### **Southern Region**

Clare, Limerick, Tipperary, Carlow, Kilkenny, Waterford, Wexford, Laois, Cork City, Cork County, Kerry.

#### **Eastern & Midland Region**

Dublin City, Dun Laoghaire-Rathdown, Fingal, South Dublin, Kildare, Meath, Wicklow, Louth, Laois, Longford, Offaly, Westmeath.

For information the previous regions were Southern and Eastern (SE) and Border, Midlands and West (BMW) regions.

The counties constituting each of the previous two regions are listed below:

**BMW Region:** Cavan, Donegal, Galway, Laois, Leitrim, Longford, Louth, Mayo, Monaghan, Offaly, Roscommon, Sligo, Westmeath



**SE Region:** Carlow, Clare, Cork, Dublin, Kerry, Kildare, Kilkenny, Limerick, Meath, Tipperary, Waterford, Wexford, Wicklow

## 5.8. Time Coverage

1998-2020

## 5.9. Base period

Not applicable.

## 6. Unit of Measure

- Number of enterprises and number of local units are expressed in units.
- Monetary data are expressed in millions of €.
- Employment variables are expressed in units.
- Per head values are expressed in thousands of € per head.

## 7. Reference Period

2020

## 8. Institutional Mandate

### 8.1. Legal Acts and other agreements

The Annual Services Inquiry (ASI) is carried out in accordance with S.I. No. 268 of 2022 - Statistics (Structural Business Inquiry) Order 2022, made under the Statistics Act 1993

Regulation (EC) No. 295 of 2008 of the European Parliament and of the Council concerning structural business statistics. This regulation has been amended by Commission Regulation (EU) No 446/2014.

### 8.2. Data Sharing

Not applicable.

## 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/lqdp/csodatapolicies/statisticalconfidentiality/>





## 9.2. Confidentiality – data treatment

Individual companies' data are treated as strictly confidential under the Statistics Act, 1993. The aggregates are published broken down by principal activity of the enterprise as well as by regions, turnover and employment size classes, nationality of ownership etc.

The level of breakdown is determined by making sure that the data in the resulting categories does not violate the confidentiality of the returns.

Eurostat k-rules are used, i.e. a cell is confidential, if 80+% of total comes from 1 company or 90+% comes from 2 companies. A cell is confidential if it contains less than 3 enterprises.

## 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/lgdp/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

We publish tables via our PxStat facility on the CSO website following our annual national publication in September each year.

## 12. Accessibility and clarity

### 12.1. News release

Not applicable.

### 12.2. Publications

The Annual Services Inquiry is disseminated in Electronic Release format as part of the Structural Business Statistics Series.



The release can be accessed on the CSO website directly from this link:  
<https://www.cso.ie/en/statistics/multisectoral/structuralbusinessstatistics/>

### **12.3. On-line database**

Final data are available on the CSO's online database PxStat the tables can be accessed directly from this link: <https://data.cso.ie/product/ESDS>

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

Not calculated individually for ASI.

### **12.4. Micro-data Access**

Microdata access is available after national publication to any approved users to apply via our RMF application process. See weblink below for details on our RMF application process.  
<https://www.cso.ie/en/aboutus/lgdp/csodatapolicies/dataforresearchers/applicationprocedure/>

### **12.5. Other**

Historical results for reference years 1999 to 2006 and current data are available on the CSO website as are current survey forms.

Individual queries and requests for special data are answered by phone and e-mail and tight statistical disclosure control rules. A typical example is a breakdown of data at more detailed level of NACE than in publication.

ASI data is included in the Business in Ireland publication in Q4 every year which gives a detailed review of our SBS data. <https://www.cso.ie/en/statistics/enterprisestatistics/businessinireland/>

The information is also included in the Statistical Yearbook of Ireland.  
<https://www.cso.ie/en/statistics/statisticalyearbookofireland/>

#### **12.5.1. AC2. Metadata consultations**

Not calculated.

### **12.6. Documentation on Methodology**

Further documentation on the methodology used to compile this output can be accessed from the Methods page on cso.ie or directly from this link:  
<https://www.cso.ie/en/methods/services/annualservicesinquiry/>

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

Not calculated.

### **12.7. Quality Documentation**

Further documentation on the quality aspects of this output can be accessed from the Methods page on cso.ie or directly from this link:  
<https://www.cso.ie/en/methods/services/annualservicesinquiry/>



## 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

The quality of statistical information and its production process is ensured by the provisions of the European Statistics Code of Practice.

The CSO requires that all dissemination outputs undergo an annual self-assessment exercise to examine the quality of the processes used to generate statistics and the quality of the outputs themselves. The last iteration of this exercise showed that the survey would benefit from a larger sample size and steps have been taken to accommodate for this assessment.

The main quality assurance activity for SBS is the data validation.

A number of validation procedures, from data collection to data dissemination are performed:

- Automatic checks - performed in the process of data entry.
- Logical checks - data control of correctness of the suspicious size of the values or incompleteness of the data. Errors of this type are corrected through direct contacts with the enterprises.
- Micro checks - at the level of enterprise.
- Macro checks - at the level of NACE class (2/3/4-digit code).

## 14. Relevance

### 14.1. User Needs

The ASI is an important instrument for production of Structural Business Statistics both on national and European level. It provides a base for computing other important indicators, such as consumer, wholesale price and retail sales indexes.

The results are constantly used by National Accounts and Balance of Payments sections of the CSO.

National Accounts use the data that is not available from other sources. Government bodies and researchers use aggregates and microdata for compilation of reports and papers.

We also meet with customers (government and research community) once a year via an Economic Statistics Liaison Group (ESLG) to discuss our surveys and data.

#### 14.1.1. Main National Users

- Irish Government
- National Accounts
- Economists
- Researchers
- Industry representative bodies



#### **14.1.2. Principal External Users**

Eurostat

### **14.2. User Satisfaction**

We conduct an ESLG meeting with users annually to gauge user satisfaction and feedback. A user canvass was carried out in 2019.

### **14.3. Data Completeness**

Data on all variables requested by the EC Regulation are collected and submitted to Eurostat.

#### **14.3.1. Data Completeness rate**

100%

## **15. Accuracy and reliability**

### **15.1. Overall accuracy**

The administrative data sources used seem to be of satisfactory quality.

### **15.2. Sampling Error**

The sample is manually checked for accuracy of names, addresses and NACE codes before posting. The enterprises deemed to be inactive, non-relevant or duplicates of other enterprises are removed from the survey and reported to Business Register for further actions.

#### **15.2.1. A1. Sampling error indicator**

It is not clear how variations of coefficients can be generated in mixed mode survey using survey data and administration data.

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

Statistical inference using ratio estimators. Non-respondents are treated as not being selected; the final sample from which inference is made consists of respondents only. The sample is increased to the population size using Administrative data.

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

The sample is taken from the CSO's Central Business Register (CBR). All enterprises in NACE Rev.2 sectors G, H, I, J, L, M and N, divisions 92, 93, 95 and 96 with at least 1 person engaged are covered. Misclassification errors (wrong NACE code) are corrected manually and reported back to CBR.

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

Not calculated.

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

Not calculated.



### 15.3.2. Measurement error

Measurement errors are not formally calculated for the survey. However, all measures are taken to prevent their occurrence. All efforts are made to make the questionnaire form as clear as possible. Detailed Instructions on how to fill it in are also provided. A large number of queries are dealt with by phone or e-mail on a day-to-day basis. Individual companies' data are confidential under the Statistics Act, 1993, and can only be used for statistical purposes. All efforts are made to make this fact known to the respondents.

### 15.3.3. Non-Response Error

A breakdown of the response rate for 2020 is available in the table below:

No. Forms issued	Responded	Usable
17,649	8348	7238
100%	47%	41%

#### 15.3.3.1. Unit non-response rate

In 2020 the coverage rate for Turnover was 54.4% therefore the turnover non response rate was 45.6%. The coverage rate for Gross Value Added was 50.0%.

#### 15.3.3.2. Item non-response rate

Not calculated.

### 15.3.4. Processing error

All possible measures are taken to avoid processing errors, which may occur in scanning, data transfer and in the process of updating the data manually. A system of derived variables and edit rules described in 4.3 ensures that the processing errors, even if present, are not affecting the outcome significantly.

### 15.3.5. Model assumption error

The use of Administrative data to impute for a range of financial variables is making the assumption that certain enterprises financial structures are similar. This may not always be the case.

## 16. Timeliness and punctuality

### 16.1. Timeliness

Preliminary results containing only Turnover and Employment for the state at 3-digit NACE level are produced @T+10 month and transmitted to Eurostat. However, these have never been published nationally.

The Tax deadline in Ireland is Mid November each year and is in relation to either the previous year or two years prior. The file we receive from Revenue is not available until April. National accounts data is not available for coherence checks until Mid June / early July.

Final data is produced and transmitted to Eurostat by the agreed deadline of the 31st of July (T+18months) to avoid revisions when the National account data is finalised

Due to Covid the survey data collection was delayed and the chasing of companies via telephone was not as effective as previous years as the contact people were working from home.

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

T+10 months for Eurostat.  
N/A at national level.



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

T+18 months for Eurostat.  
T+20 months nationally.

## **16.2. Punctuality**

Data was submitted by the 31st of July as per the extended deadline agreed with Eurostat.

The national results are always published on time in line with the indications given in the CSO's release calendar.

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

0 days

## **17. Comparability**

### **17.1. Comparability – Geographical**

The ASI is conducted under the Eurostat guidelines, which apply to all member countries in the European Union. This ensures that the statistics produced are comparable across EU.

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

Not applicable.

### **17.2. Comparability over time**

The 1995 inquiry was the first survey to use Business Register as the basis for the sampling frame, as previous inquiries were sampled and grossed with reference to the 1988 Census of Services register. The Business Register is continuously updated, and thus provides a more satisfactory approach to grossing than used previously. However, this change of registers, in addition to changes in classifications, means that the results of the 1995 and subsequent inquiries are not fully comparable with results from previous years. A more complex sampling/grossing methodology is used from 1999 ASI onwards; therefore, the outcome is not directly comparable to previous years.

The introduction of the NACE Rev. 2 classification has led to some significant changes compared to the previously used NACE Rev. 1.1, such as the introduction of new sectors not surveyed before (e.g., veterinary services), the reclassification of some sectors from Industry to Services (e.g. publishing) and changes to the internal structure of the Distribution and Services sectors. As a consequence, the results from the reference year 2008 onwards are not directly comparable with earlier years. The introduction of the use of Administrative data in 2008 for non-response instead of grossing has increased the difficulties in comparing the series.

The target population changed in 2008, due to change in methodology in Business Register.

#### **17.2.1. Length of Comparable Time series**

2008 to date (12 years)



### 17.3. Coherence – cross domain

A major revision of the 2008-2014 series was carried out previously. This new methodology was applied from 2015 reference period data onwards. This mean SBS data was much closer aligned to Business Demography data.

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

Services data is compared with monthly Retail Trade and Services data.

#### 17.3.2. Coherence with National Accounts

Prior to aggregation the data is thoroughly checked for consistency with National Accounts and Balance of Payments sections of the CSO. Any major discrepancies are discussed and resolved.

### 17.4. Coherence – internal

Data for the largest 70 or so companies in Ireland are collected by LCU (Large Cases Unit) and passed to each survey area as required this ensures great coherence in the associated NACE sectors. SBS data is checked against Tax data and National accounts data to improve coherence.

## 18. Cost and Burden

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

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

Respondents were asked to estimate the number of minutes it took them to complete the Annual Services Inquiry form. The purpose of this question was to indicate the response burden placed on enterprises selected for the survey. The average response time for all enterprises was 45.7 minutes.

## 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

A major revision of the 2008-2014 series was carried out in 2015 and 2016. The new methodology was applied to the 2015 reference period thereafter.

If an error or new data becomes available which will affect any major variable at division level by 5% a revision will be made and published.

Users will be made aware of the revision by inserting a grey box outlying the revision and or a footnote in PxStat.

### 19.2.1. Data Revision – Average size

Not calculated

## 20. Statistical processing

### 20.1. Source Data

Enterprises' returns on the issued survey forms are the primary data source for units with 2 and more persons engaged. Administrative (Tax) data sources are used for imputation for enterprises with for non-surveyed or non-responding enterprises.

#### 20.1.1. Population and sampling frame

The survey covers all enterprises with 1 or more persons engaged in retail, wholesale, transportation and storage, accommodation and food, information and communication, real estate, professional, scientific, technical, administrative and other selected services sectors (NACE Rev.2 sectors G, H, I, J, L, M, N, divisions 92, 93, 95 and 96).

Since 1995 the CSO's Central Business Register provides the sampling frame, from which the Annual Services Inquiry sample is selected each year.

#### 20.1.2. Sampling design

The ASI is designed to provide estimates of the principal trading aggregates for all enterprises in the relevant sectors. The 'enterprise' is the unit used for survey purposes i.e. one return is sought in respect of each enterprise covering all constituent branches, local units or subsidiaries.

The survey sample consists of the census of enterprises with 50+ employees plus a random sample of the smaller units with 2 to 49 persons engaged, stratified by activity (NACE Rev.2) and employment size class.

The employment size classes and approximate sampling rates are shown in the table below:

Persons Engaged	Sampling Rate
2-9	1/10
10-49	1/2

#### 20.1.3. Survey size

17,500.





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

Survey forms are printed in the CSO's printing section and are usually posted to the enterprises at the end of April.

Three reminders to non-respondents are sent in June, September and November.

Due to the COVID-19 pandemic, forms for 2019 were posted in August 2020, an email reminder was sent in November and a paper reminder in December 2020.

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

Annual data collection.

## **20.3. Data Collection**

When a survey form is returned to the section, the form is scrutinised to identify any errors, scanned, and verified. The scanned data and the data from electronic returns are transferred to the CSO's Data Management System (DMS), where it can be viewed and amended as required.

Electronic returns are transferred to DMS as is, without any prior scrutiny.

SAS programs are used for the transfers and management of the survey.

Edits are run after the data is uploaded and any issues that arise are looked at and resolved where necessary. This is done by contacting the company, looking at previous returns or consulting administrative data sources, where available.

Every company is coded according to its primary activity (NACE); County codes are used to produce regional results. These are the only types of coding used.

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

The ASI is conducted as a postal inquiry, but an electronic questionnaire is also available for completion online.

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

The Annual Services questionnaire requests the data on Turnover, Stocks, Capital Assets, Personnel Costs, Purchases, Employment, including detailed breakdowns.

A copy of the questionnaires used can be viewed here  
<https://www.cso.ie/en/methods/surveyforms/annualservicesinquiry/>

### **20.3.3. Survey Participation**

Annual Services Inquiry is a compulsory survey.

### **20.3.4. Data Capture**

Data are collected from enterprises via a paper form and an electronic questionnaire (eQ).

## **20.4. Data Validation**

The data scanned from the survey forms and from the electronic returns is uploaded into DMS and edited on-screen. Multiple derived variables are created to check for abnormalities in the companies' returns. These are mainly ratios such as Stocks to Turnover, Opening Stocks to Closing etc., which are supposed to be within a certain range. Additionally, the following edit rules are built into the DMS:



### **B form Edits enterprises with 15 or more employees**

- Unusually high profit or loss.
- Turnover needs to be checked if 20% change from previous year.
- Capital Research and Development needs to be checked if 100% different than the previous period.
- Cost of sales needs to be checked if 100% different than the previous period.
- Purchases of other goods and services needs to be checked if 100% different than the previous period.
- Total Subsidies needs to be checked if 100% different than the previous period.
- Purchases for resale needs to be checked if 100% different than the previous period.
- Social security should not be less than 5% of Wages and Salaries.
- Social Security should not exceed 25% of wages and salaries.
- Wholesale Turnover needs to be checked if 50% change from previous year.

### **C form Edits enterprises with 14 or less employees**

- Unusually high profit or loss.
- Turnover needs to be checked if 20% change from previous year.
- Social security should not be less than 5% of Wages and Salaries.
- Social Security should not exceed 25% of wages and salaries.
- Cost of sales needs to be checked if 100% different than the previous period.
- Purchases of other goods and services needs to be checked if 100% different than the previous period.
- Total Subsidies needs to be checked if 100% different than the previous period.
- Purchases for resale needs to be checked if 100% different than the previous period.

If any of the edit rules is violated, the enterprise is contacted to resolve any discrepancy. The data is then manually edited on the basis of the enterprise explanation. In certain cases (very large companies) the enterprises' returns are checked for consistency across available administrative data sources.

A set of extensive macro-checks is run on the aggregated data to comply with Eurostat rules. These include year-on-year comparison for both main variables and certain ratios, e.g. Turnover per Person Engaged or GVA to Turnover etc. Additional micro-checks are performed for the sectors where the change is outside the specified range, usually [-10%; +10%].

## **20.5. Data Compilation**

The original series was aggregated using grossing factors. This method has been revised in the new series. Instead of grossing to a total population administrative (tax) data is used instead.

For every non-respondent or non-surveyed enterprise, a survey return is created using tax information.

The primary financial value the survey uses is profit/loss data with estimates for labour costs added to arrive at a value for GVA.

Where possible labour costs for non-response were taken from revenue data also to reduce the estimation. This is derived from the administrative data.

Other financial variables normally received from the survey form are estimated using actual survey returns as the data is not available from the administrative data. This is done using ratio-estimators. A basic example of the concept would be the ratio of turnover to GVA. If for a particular NACE the ratio of turnover to GVA is 4:1, we would simply multiply the derived administrative GVA by 4 to give us a turnover value.

Outputs are computed using ratio estimator with Number of Persons Engaged as an auxiliary parameter.



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

Mass imputation from the administrative data sources is used for enterprises who have not responded or were not surveyed.

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

Not calculated.

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

Due to the use of Administration data no grossing or weighting is carried out.

## **20.6. Adjustment**

The reference period does not differ from the calendar year - not applicable.

### **20.6.1. Seasonal Adjustment**

Not applicable

## **21. Comment**