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Central  
Statistics  
Office

# Standard Report on Methods and Quality for Statistics of Port Traffic

**Standard Report**  
**on**  
**Methods and Quality**  
**for**  
**STATISTICS OF PORT TRAFFIC**

This documentation applies to the reporting period:  
2014 to 2019

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## 1. Overview

The release titled 'Statistics of Port Traffic' provides data on the scale and development of the carriage of goods and passengers by sea. It provides summary data on the type and size of vessel traffic inwards and outwards, type of goods loaded and unloaded and the origin and destination country of the vessels. Data are collected on a quarterly basis covering 7 ports. A further 14 ports provide data annually. The data are compiled from returns made from Scheduled Harbour Authorities, State companies, and a number of other harbours. The statistics contained in the release can be used to compare maritime transport in Ireland with that of other European countries. The release was first published in 1972. From quarter 1 2019, the release will be published quarterly with data from the main Irish ports.

## 2. General information

### 2.1 Statistical Category

Primary Statistical Survey

### 2.2 Area of Activity

Transport Statistics

### 2.3 Organisational Unit Responsible, Persons to Contact

Transport Section, Agriculture, Transport and Tourism Division

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### 2.4 Objectives and purpose; history

The Statistics of Port Traffic survey was introduced to provide detailed official information on the volume of activity at Irish ports. The data, which originally related to numbers of arrivals of vessels, net register tonnage of vessels and to the tonnage of goods handled, were supplied by the Harbour Authorities (without whose co-operation the initiation of this series would not have been possible). The first release, which covered Port activity for the years 1969, 1970 and 1971, consisted simply of one table summarising the activity of all the ports in the state. Subsequently, to meet additional information demands, the series was expanded to include information on vessel characteristics, category of goods traffic, details of roll-on/roll-off traffic, details of lift-on/lift-off traffic, region of trade and passenger numbers.

### 2.5 Periodicity

Quarterly and annual

### 2.6 Client

The survey was originally conducted to meet a general National requirement. However, this national requirement has since been supplemented by an EU requirement. Council Directive 95/64/EC on statistical returns in respect of the carriage of goods and passengers by sea requires all EU Member States to collect and compile statistics of port traffic.

## 2.7 Users

- Government departments
- Shipping enterprises
- Eurostat
- Freight Forwarding Agents
- General National Requirement
- Research institutions
- Individual research

## 2.8 Legal basis

Data are collected to satisfy EU requirements under Council Directive 95/64/EC on statistical returns in respect of the carriage of goods and passengers by sea and National requirement under Statutory Instrument S.I. No. 90/2014 - Statistics (Carriage of Goods and Passengers by Sea) Order 2013.

## 3. Statistical concepts, methods

### 3.1 Subject of the statistics

The subject of the statistics is the activity at Irish ports, which is measured in terms of number of vessel arrivals and departures by port, the goods loaded and unloaded at each port and the origin and destination partner ports. Information on cruise ship passengers is also collected and included in the quarter four release.

### 3.2 Units of observation/collection units/units of presentation

Data are collected and presented on the number of arrivals and gross tonnage of vessels by type and size of vessel and the tonnage of goods handled by ports, classified by category of traffic and region of trade. The units of observation are vessels arriving and departing. The units of collection are the various Port Authorities. The Port Authorities already collect information on shipping for their own administrative purposes and they compile and summarise this information for the CSO.

### 3.3 Data sources

The data are provided by Harbour Authorities and Port Companies.

### 3.4 Reporting unit/respondents

The reporting units are as follows:

#### **Scheduled Harbour Authorities**

Arklow Harbour Commissioners  
Bantry Bay Harbour Commissioners  
Kilrush Town Council  
Kinsale Harbour Commissioners  
Sligo Harbour Commissioners  
Tralee and Fenit Pier and Harbour Commissioners  
Youghal Town Council

**State Companies**

Drogheda Port Company  
Dublin Port Company  
Dundalk Port Company  
Dun Laoghaire Harbour Company  
Galway Harbour Company  
New Ross Port Company  
Port of Cork Company  
Port of Waterford Company  
Shannon Foynes Port Company  
Wicklow Port Company

**Other Harbours**

Castletownbere Fishery Harbour Centre  
Greenore Port  
Killybegs Fishery Harbour Centre  
Rosslare Europort

**3.5 Type of survey/Process**

The survey is a census. The returns are collected primarily by email from the Harbour Commissioners and by postal replies from the smaller port companies.

**3.6 Characteristics of the sample****3.6.1 Population and Sampling Frame**

Census of all Harbour Authorities and Port Companies. Ports handling over 1 million tonnes of goods or recording more than 200,000 passenger movements annually are obliged to send data electronically at the end of each quarter. Smaller ports must provide annual data broken down by quarter in the first quarter following the reference year at the very latest.

**3.6.2 Sampling Design**

The survey is a full census.

**3.7 Survey technique/data transfer**

Ports handling over 1 million tonnes of goods or recording more than 200,000 passenger movements annually are obliged to send data electronically at the end of each quarter and the smaller ports must complete a quarterly survey form which can be returned electronically or by hardcopy through the post.

**3.8 Questionnaire (incl. Explanations)**

A survey form is sent to the smaller ports at the end of each quarter.

**3.9 Participation in the survey**

All Port Authorities and Port Companies are obliged to participate in the survey

### **3.10 Characteristics of the survey/Process and its Results**

The data file that is received quarterly contains the following variables for each vessel:

- Reporting Port
- Type of Cargo
- Direction
- Port of loading/unloading
- Gross weight of goods in tonnes
- Number of passengers
- Nationality of registration of vessel
- Number of vessels by type and size
- Deadweight of vessels
- Gross tonnage of vessels

A simple aggregation is then carried out on the data and the following classification variables are reported on in the publication:

- Number of Arrivals and Gross Tonnage of Vessels classified by Type of Vessel
- Number of Arrivals and Gross Tonnage of Vessels classified by Vessel Size Class
- Tonnage of Goods handled classified by Category of Traffic
- Tonnage of Goods handled classified by Category of Traffic and Region of Trade
- Details of Roll-on/Roll-off Traffic handled by Port
- Tonnage of Goods handled classified by Port and Region of Trade

### **3.11 Classifications used**

EU classifications are in use for the following characteristics:

- Type of vessel
- Size of vessel
- Category of traffic
- Gross tonnage of goods
- Region of Trade

### **3.12 Regional breakdown of results**

Published results are broken down by region of trade as detailed below:

- Great Britain & Northern Ireland
- Other EU
- Non-EU
- Other Ports
- Coastal Trade (Other Irish Ports)

Eurostat compiles and publishes the results at NUTS2 level (Nomenclature of Territorial Units for Statistics – which is an EU geographical classification).

## **4. Production of the statistics, Data processing, Quality Assurance**

### **4.1 Data capture**

Data are received quarterly from the ports via email and post. Where the data are received by email they will usually be in Excel or text format. This data must be manually reformatted. Once reformatted, the data is processed using the statistical software tool SAS. This processing essentially involves writing the data to .csv files in the appropriate specification for transmission to Eurostat.

### **4.2 Coding**

Coding is based on Eurostat list of codes compiled for all EU Member States. The data are pre-coded by the ports when they are compiling the data, so no actual coding occurs when processing the data.

### **4.3 Data Editing**

Data editing and validation is carried out using SAS to ensure that all codes used are valid and that there is consistency in the data. Duplicate records are also identified. Any queries that arise are forwarded to ports for clarification and amendment if necessary.

### **4.4 Imputation (for non-response or incomplete data sets)**

Not Applicable as all ports respond

### **4.5 Grossing and Weighting**

Not applicable

### **4.6 Computation of Outputs, Estimation Methods Used**

Outputs are compiled by aggregation of data

### **4.7 Other Quality Assurance Techniques Used**

For each quarterly transmission, Eurostat carries out quality checks where comparisons for the Irish data are made with previous quarters and previous year. Eurostat is also in a position to check the data with corresponding reports from other Member States. For each transmission, Eurostat reports back on its findings. If the report identifies any possible inconsistencies, the CSO checks these with the relevant Port. If amendments are made to the data, they are re-transmitted to Eurostat.

The main Irish ports are sent their individual reports prior to the publication of the quarterly release and any changes necessary are recalculated and incorporated in the release. In addition, when all 4 quarters' data are being aggregated for the Statistics of Port Traffic release, the individual results are sent to the various Port Authorities by way of a final check on the data. If the Port Authorities are happy with the final figures, then they are published.

## **5. Quality**

### **5.1 Relevance**

The port traffic data are of major relevance for the Government and Department of Transport as an indicator of how the sector is performing, and also to implement and monitor policies for maritime transport.



## **5.2 Accuracy and Reliability**

### **5.2.1 Sampling effects, representativity**

Not applicable

### **5.2.2 Non-Sampling effects**

#### **5.2.2.1 Quality of the data sources used**

Not applicable.

#### **5.2.2.2 Register Coverage**

A register is not required for the survey. The number of ports in the state are limited and unchanging.

#### **5.2.2.3 Non-response (unit and item)**

Not applicable.

#### **5.2.2.4 Measurement errors**

The scope for measurement error is limited given that there is little room for ambiguity in the standard reporting template and given the fact that the various Port Authorities will already collect the data for their own purposes. It is possible that some measuring errors may occur as a result of coding errors on behalf of the Port Authorities. However, there is a mechanism in place to catch these in most cases if and when they occur.

#### **5.2.2.5 Processing errors**

The scope for processing errors is limited, in that the data is not processed manually. In any case, edit checks are done on the data files received from ports to ensure that all codes used are valid and that there is consistency in the data from the previous quarter. Any variable that is highlighted as a result of the edit checks carried out on the data are forwarded to ports for clarification and amended.

#### **5.2.2.6 Model-related effects**

Not Applicable

## **5.3 Timeliness and punctuality**

### **5.3.1 Provisional results**

Provisional results are not compiled.

### **5.3.2 Final results**

Final data are provided in the quarter four release which is published 5 months after the end of the reference period. The information published is the number of ships arriving in port, their gross tonnage, the tonnage of goods handled, details of roll-on/roll-off traffic and details of lift on/lift off traffic. Results are also disseminated by Eurostat.

## **5.4 Coherence**

Some coherence checks are carried out by Eurostat regarding intra-EU maritime trade. Eurostat is in a position to report discrepancies between the maritime statistics submitted by the differing EU Member States. Any such discrepancies reported are followed up with the Port Authorities as necessary. In practise discrepancies rarely arise.

## **5.5. Comparability**

Each quarter, Eurostat compares the transmitted data with the previous quarters, on a port-by-port basis. Any unusual differences are reported back and are followed up with the Port Authorities as necessary.

## **5.6 Accessibility and Clarity**

### **5.6.1 Assistance to Users, Special Analyses**

Detailed tables of Statistics of Port Traffic release are available on the CSO's website from 1998 onwards. Special analyses are available on request.

### **5.6.2 Revisions**

The data are revised if necessary

### **5.6.3 Publications**

#### **5.6.3.1 Releases, Regular Publications**

Statistics of Port Traffic, Quarterly

#### **5.6.3.2 Statistical Reports**

Transport Omnibus

<https://www.cso.ie/en/statistics/transport/transportomnibus/>

Statistical Yearbook of Ireland

<https://www.cso.ie/en/statistics/statisticalyearbookofireland/>

#### **5.6.3.3 Internet**

Most recent release

<https://www.cso.ie/en/statistics/transport/statisticsofporttraffic/>

Archived releases

<https://www.cso.ie/en/statistics/transport/archive/>

StatBank

[https://www.cso.ie/px/pxeirestat/Database/eirestat/Maritime%20Statistics/Maritime%20Statistics\\_statbank.asp?SP=Maritime%20Statistics&Planguage=0](https://www.cso.ie/px/pxeirestat/Database/eirestat/Maritime%20Statistics/Maritime%20Statistics_statbank.asp?SP=Maritime%20Statistics&Planguage=0)

Eurostat Transport (including Maritime) Data Dissemination

[http://ec.europa.eu/eurostat/data/database?node\\_code=mari\\_go\\_atyve](http://ec.europa.eu/eurostat/data/database?node_code=mari_go_atyve)

#### **5.6.4 Confidentiality**

All data received from the individual Port Authorities are treated as strictly confidential in accordance with Part V of the Statistics Act, 1993. This data is not available under the Freedom of Information Act, 1997. Only aggregate statistical data is disseminated.

### **6 Additional documentation and publications**

Additional information on the survey, including the differing data fields collected and the codification used, can be found in the Annexes of Council Directive 95/64/EC:

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:1995L0064:20040101:EN:PDF>