

**Standard Report  
on  
Methods and Quality (v1)  
  
for  
QNHS**

This documentation applies to the current reporting period:

**2017 – Quarter 2**

Last edited: <18 Sep 2017>

CENTRAL STATISTICS OFFICE

Skehard Road, Cork

021 4535000

[www.cso.ie](http://www.cso.ie)

## **Table of Contents**

### **1 Overview**

### **2 General Information**

- 2.1 Statistical Category
- 2.2 Area of Activity
- 2.3 Organisational Unit Responsible, Persons to Contact
- 2.4 Objectives and Purpose; History
- 2.5 Periodicity
- 2.6 Client
- 2.7 Users
- 2.8 Legal basis

### **3 Statistical Concepts, Methods**

- 3.1 Subject of the Statistics
- 3.2 Units of Observation/Collection Units/Units of Presentation
- 3.3 Data Sources
- 3.4 Reporting Unit/Respondents
- 3.5 Type of Survey/Process
- 3.6 Characteristics of the Sample/Process
  - 3.6.1 Population and Sampling Frame
  - 3.6.2 Sampling Design
- 3.7 Survey Technique/Data Transfer
- 3.8 Questionnaire (including explanations)
- 3.9 Participation in the Survey
- 3.10 Characteristics of the Survey/Process and its Results
- 3.11 Classifications used
- 3.12 Regional Breakdown of Results

### **4 Production of the Statistics, Data Processing, Quality Assurance**

- 4.1 Data Capture
- 4.2 Coding
- 4.3 Data Editing
- 4.4 Imputation (for Non-Response or Incomplete Data Sets)
- 4.5 Grossing and Weighting
- 4.6 Computation of Outputs, Estimation Methods Used
- 4.7 Other Quality Assurance Techniques Used

### **5 Quality**

- 5.1 Relevance
- 5.2 Accuracy and Reliability
  - 5.2.1. Sampling Effects, Representativity
  - 5.2.2. Non-Sampling Effects
    - 5.2.2.1 Quality of the Data Sources used
    - 5.2.2.2 Register Coverage
    - 5.2.2.3 Non-response (Unit and Item)
    - 5.2.2.4 Measurement Errors
    - 5.2.2.5 Processing Errors

- 5.2.2.6 Model-related Effects
- 5.3 Timeliness and Punctuality
  - 5.3.1 Provisional Results
  - 5.3.2 Final Results
- 5.4 Coherence
- 5.5 Comparability
- 5.6 Accessibility and Clarity
  - 5.6.1 Assistance to Users, Special Analyses
  - 5.6.2 Revisions
  - 5.6.3 Publications
    - 5.6.3.1 Releases, Regular Publications
    - 5.6.3.2 Statistical Reports
    - 5.6.3.3 Internet
  - 5.6.4 Confidentiality
- 6 Additional documentation and publications

## **1 Overview**

The Quarterly National Household Survey (QNHS) began in September 1997, replacing the annual April Labour Force Survey (LFS). The survey meets the requirements of Council Regulation (EC) No.577/98, adopted in March 1998, which requires the introduction of quarterly labour force surveys in EU Member States. Outputs are primarily used to produce quarterly labour force, employment and unemployment estimates for Ireland. In addition to meeting EU requirements, the QNHS is also used as a means of collecting data on important social topics, included as modules in the survey, either for EU requirements or to meet national data needs. Outputs are also supplied to other internal users such as National Accounts, Tourism and Earnings.

Information is collected in the field by a team of face-to-face interviewers using Computer Assisted Personal Interviewing (CAPI) on laptop computers (using a Blaise application). Information is collected continuously throughout the year from households surveyed each week in each quarter. The total quarterly sample is designed to be 26,000 households. The actual achieved sample varies over time depending on the level of response. The achieved sample can be seen in section 5.2.2.3.

## **2 General Information**

### **2.1 Statistical Category**

Primary Statistical survey

### **2.2 Area of Activity**

Labour Market

### **2.3 Organisational Unit Responsible, Persons to Contact**

The relevant sections are part of the Social and Demographic Statistics Directorate.

The work of QNHS section is largely divided into two areas – a Household Survey Collection Unit (HSCU) and a Labour Market Analysis publication unit. Each unit is headed by a Senior Statistician who also has responsibility for other survey areas.

#### Labour Market Analysis queries

Jim Dalton Tel: +353 021 453 5093

Email: [labour@csso.ie](mailto:labour@csso.ie)

Martina O’Callaghan Tel: +353 021 453 5491

Email: [labour@csso.ie](mailto:labour@csso.ie)

#### Household Survey Collection Unit queries

Breda Fallon Tel: +353 021 453 5431

Email: [qnhs@csso.ie](mailto:qnhs@csso.ie)

### **2.4 Objectives and Purpose; History**

The QNHS has been in operation since September 1997, replacing the annual labour force survey. The primary purpose of the survey is to collect information on the Irish labour market (collected via what is known as the “CORE” questionnaire). It also collects information on a wide range of social topics (generally via what is known as “MODULE” questionnaires).

### **2.5 Periodicity**

Information is collected continuously throughout the year. The sample is designed to be representative on a quarterly basis with a target of 2,000 households to be surveyed each week. This results in a total design sample of 26,000 households in each quarter. The reference quarters for survey results are: Q1- January to March, Q2- April to June, Q3- July to September and Q4- October to December. (i.e. calendar quarters).

The QNHS changed from seasonal quarters to calendar quarters in Q1 2009. Previously, the QNHS operated on a seasonal quarter basis. (Q1- December to February, Q2- March to May, Q3- June to August, Q4- September to November) For further information on the changeover to calendar quarters, see the supplementary note linked below.

<http://www.csso.ie/en/media/cssoie/qnhs/documents/calendar/supplementarynote.pdf>

Results previously published on a seasonal quarter basis have been revised and reissued on a calendar quarter basis covering the periods Q1 1998 to Q4 2008.

## **2.6 Client**

Each Member State in the EU must undertake a Labour Force Survey (LFS) to provide information on key labour market indicators. The QNHS is the Irish implementation of the EU-LFS. The QNHS also provides important inputs to national policy makers.

## **2.7 Users**

- European Union/Eurostat
- Government departments (Department of the Taoiseach, Department of Finance, Department of Jobs, Enterprise and Innovation, Department of Social Protection, Department of Education etc)
- FAS/SOLAS – National Skills Training Agency
- Other research centres and universities involved in labour market research
- National media
- The general public

## **2.8 Legal basis**

The QNHS is carried out under EU Council Regulation No 577/98. There are also a number of implementing regulations which outline various aspects of the survey, how data should be coded for transmitting to Eurostat, the topics for pan European ad-hoc modules etc.

[http://ec.europa.eu/eurostat/statistics-explained/index.php/EU\\_labour\\_force\\_survey\\_%E2%80%93\\_main\\_features\\_and\\_legal\\_basis](http://ec.europa.eu/eurostat/statistics-explained/index.php/EU_labour_force_survey_%E2%80%93_main_features_and_legal_basis)

While Ireland as a member state is obliged to undertake the QNHS, participation in the survey is voluntary for respondents.

### **3 Statistical Concepts, Methods**

#### **3.1 Subject of the Statistics**

Labour market statistics.

#### **3.2 Units of Observation/Collection Units/Units of Presentation**

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 15 years or over for whom it is the main residence. Information is collected on each individual within a surveyed household.

The main units of presentation are:

- Demographic variables such as Sex, Age, Nationality
- Other personal characteristics such as Regional classification NUTS 2 & 3 (Nomenclature of Territorial Units), Highest level of education attained etc.
- International Labour Office labour force classification (ILO Status)
- Industrial activity classification NACE Rev.2 (Nomenclature des Activités de la Communauté Européenne)
- Occupation
- Employment status

While the above are the primary presentation units for regular publication the QNHS can present data according to a wide variety of classifications based on the comprehensive range of questions asked in the survey. Such analysis is often provided on an ad hoc basis following user requests.

#### **3.3 Data Sources**

For the QNHS core publication and modules, information is collected from individuals in households.

#### **3.4 Reporting Unit/Respondents**

All 'usual residents'<sup>1</sup> in responding households are surveyed. Where a particular individual is not available for interview, information can be provided by another member of the household in most circumstances via a proxy interview. A proxy interview refers to

---

<sup>1</sup>A person is defined as a "Usual Resident" of a private household if he or she

(i) Lives regularly at the dwelling in question  
and

(ii) Shares the main living accommodation (i.e. kitchen, living room or bathroom) with the other members of the household.

data which is collected from another member of the household due to the unavailability of the specific respondent at the time of the interview.

### **3.5 Type of Survey/Process**

Sample survey.

### **3.6 Characteristics of the Sample/Process**

#### **3.6.1 Population and Sampling Frame**

The reference population is all individuals living in private households in Ireland. It therefore excludes persons with no usual address or those with a usual residence in a public institution, such as hospitals, nursing homes etc. All usual residents in each household are included. The sampling frame is all private households in Ireland. Beginning in Q4 2012, a new sample based on the 2011 Census of Population was introduced incrementally and this sample was fully in effect as of Q4 2013. An additional sample also based on the 2011 Census of Population has been introduced incrementally from Q3 2016.

#### **3.6.2 Sample Design**

Sample size and design was determined after consultation with relevant experts<sup>23</sup> who considered a mix of factors including cost, levels of precision of estimates etc. A new approach was introduced in Q4 2012 based on the review by Haase Pratschke.

With this new design, a two-stage sample design is used. The sample frame of households is clustered into blocks (small areas) with each block containing a minimum of 60 occupied households on the night of the 2011 Census of Population. In the case of the sample introduced in 2012, the sample frame is stratified using administrative county and population density while the sample introduced in 2016 is stratified using administrative county and the Pobal HP (Haase and Pratschke) Deprivation Index. In the first stage 1,300 blocks are selected using Probability Proportional to Size (PPS) sampling and in the second stage 20 households are selected using Simple Random Sampling (SRS). This ensures that each household in the sample frame has an equal probability of selection and results in a total quarterly sample of 26,000 households. The actual achieved sample varies over time depending on the level of response.

Households are asked to take part in the survey for five consecutive quarters and are then replaced by other households in the same block. Thus, one fifth of the households in the

---

<sup>2</sup> Steel report, [http://www.cso.ie/en/media/csoie/qnhs/documents/steel\\_report\\_qnhs\\_sample\\_design.pdf](http://www.cso.ie/en/media/csoie/qnhs/documents/steel_report_qnhs_sample_design.pdf)

<sup>3</sup> [Haase Pratschke Report on Optimising the Sampling Methodology for CSO Household Surveys](http://www.cso.ie/en/media/csoie/methods/quarterlynationalhouseholdsurvey/Haase_Pratschke_Report_on_Optimising_the_Sampling_Methodology_for_CSO_Household_Surveys.pdf)  
[http://www.cso.ie/en/media/csoie/methods/quarterlynationalhouseholdsurvey/Haase\\_Pratschke\\_Report\\_on\\_Optimising\\_the\\_Sampling\\_Methodology\\_for\\_CSO\\_Household\\_Surveys.pdf](http://www.cso.ie/en/media/csoie/methods/quarterlynationalhouseholdsurvey/Haase_Pratschke_Report_on_Optimising_the_Sampling_Methodology_for_CSO_Household_Surveys.pdf)



survey are replaced each quarter and the QNHS sample involves an overlap of 80% between consecutive quarters and 20% between the same quarters in consecutive years. As the new sample based on the 2011 Census of Population was introduced incrementally across each quarter from Q4 2012 to Q4 2013, this new sample and new sample design is fully effective from Q4 2013.

### **3.7 Survey Technique/Data Transfer**

QNHS interviewers visit each household and ask the residents to voluntarily participate in the survey. Data are collected on encrypted laptop computers using CAPI (Computer Assisted Personal Interviewing). Every week the survey interviewer transmits the weekly data collected from households to head office using a secure encrypted data tunnel.

### **3.8 Questionnaire (including explanations)**

The QNHS questionnaire contains approximately 200 questions on a range of topics including the respondents economic status (i.e. employed, unemployed, not in the labour force), industry of employment, nationality, employment status, occupation, education level, length of time unemployed etc. It can be noted that not all questions are asked of all respondents as questions are filtered based on the responses given by the interviewee.

Additional questions on a particular topic are included for modules which are run in individual quarters.

The QNHS and module questionnaires are available on the CSO website:

<http://www.cso.ie/en/qnhs/qnhsmethodology/>

### **3.9 Participation in the Survey**

Participation in the survey is voluntary.

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

The survey is designed to produce Labour Force estimates for the State.

The data which are published in the main quarterly release refer to the estimated number of persons aged 15 years or over in the state classified by various characteristics including economic status (e.g. employed, unemployed, not in the labour force) in accordance with the ILO (International Labour Organisation) definition. Three key rates are also produced from the survey: the participation rate (the proportion of all persons aged 15 or more who are in the Labour Force), the employment rate (the proportion of all persons aged 15-64 who are in employment) and the unemployment rate (the proportion of all persons aged 15-74 in the Labour Force who are unemployed). The calculation of the unemployment rate has been revised slightly as of Q2 2015 to ensure coherence with Eurostat. Economic status is in turn classified by various characteristics such as age, sex, region, educational level, etc.

Some of the key indicators produced are estimates of those in employment by occupation and industry and estimates of those unemployed by duration of unemployment.

For full details of published indicators please see the latest QNHS release on <http://www.cso.ie/en/statistics/labourmarket/>

### **3.11 Classifications used**

There are a number of different classifications used in the QNHS:

- The main classifications of economic activity are the standard ILO definitions of persons in employment, unemployment (which are summed to derive the labour force total) and persons not in labour force.
- Industry is published by the NACE Rev 2 classification.
- Occupation is primarily published using the UK SOC 2010 classification for national purposes and is also coded to ISCO-08 classification for EU purposes.
- For EU purposes, education details have been coded to ISCED 1997 (International Standard Classification of Education) up to Q4, 2013 and to ISCED 2011 thereafter. A national classification for Irish purposes is also available. Field of education is also published.
- Regional data is coded to NUTS3 as described in Section 3.12

Detailed data is collected through the interview to allow outputs to be produced according to all the relevant classifications.

### **3.12 Regional Breakdown of Results**

The regional classifications used are based on the NUTS (Nomenclature of Territorial Units) classification used by Eurostat. The NUTS3 regions correspond 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. The NUTS2 regions, which were proposed by Government and agreed by Eurostat in 1999, are groupings of the NUTS3 regions. The sample itself is designed to be representative at NUTS3 level although some results may be repressed depending on the number of observations in the particular cell. The composition of the regions is set out below:

**NUTS2: Border, Midlands and Western**

**Southern and Eastern**

**NUTS3: Border**

Cavan  
Donegal  
Leitrim  
Louth  
Monaghan  
Sligo

**Midlands**

Laoighis  
Longford  
Offaly  
Westmeath

**West**

Galway City  
Galway County  
Mayo  
Roscommon

**Dublin**

Dublin  
Dún Laoghaire-Rathdown  
Fingal  
South Dublin

**Mid-East**

Kildare  
Meath  
Wicklow

**Mid-West**

Clare  
Limerick City  
Limerick County  
North Tipperary

**South-East**

Carlow  
Kilkenny  
South Tipperary  
Waterford City  
Waterford County  
Wexford

**South-West**

Cork City  
Cork County  
Kerry

## **4 Production of the Statistics, Data Processing, Quality Assurance**

### **4.1 Data Capture**

Information is collected in the field by a team of interviewers using laptop computers (CAPI using a Blaise application) and data is then transmitted to the main processing unit in the CSO.

### **4.2 Coding**

Occupation and Industry text strings are captured and coded in the field to the relevant classifications (see Section 3.11) by interviewers using the Blaise application. The codes assigned are then subsequently checked for quality purposes. Field of education data is likewise captured and coded in the field to the relevant classification (see Section 3.11) while the region of place of work is coded using the 34 administrative counties (see Sections 3.11 and 3.12).

### **4.3 Data Editing**

The majority of questions only allow answers to be entered to a limited set of predefined categories and therefore the number of edits required is limited. 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 which imply a derived age of more than 110) and this ensures that implausible data is prevented from being captured. The most significant data editing done is the quality checking review of the industry and occupation coding which is derived by interviewers in the field.

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

No imputation for non-response currently takes place on the QNHS, either for entirely missing households or missing data for particular individuals. Proxy interviews are allowed to obtain data for respondents who are not present in the house at time of interview. Up to 50% of interviews are proxy interviews where information has been provided by another resident of the household due to unavailability of the person in question. There are known issues with the quality of data for proxy responses for certain information in particular. For example while a proxy respondent may know the age of other residents in the household, they may not know how long they have worked with their current employer (particularly in shared households where residents are not related).

### **4.5 Grossing and Weighting**

Once a final dataset has been created, the data is weighted to population totals. To derive grossing factors, population estimates are produced by the CSO's Demography Unit each

quarter by sex, age (5 year age groups) and region (8 NUTS 3 regions). In addition, the Demography unit produce estimates of population for each quarter by sex, broad age (less than 15 and 15 or more) and nationality (5 nationality groups including Ireland, UK, EU13, EU13 (the EU excluding the EU15) and Rest of World). The individual returns are matched to these population estimates and the grossing factor is calculated by dividing the total estimates population in a given cell by the number of valid responses in that cell - i.e. if there are 1,000 respondents from the sample in a given cell and an estimated population of 40,000 then each of the respondents in this cell will have a grossing factor of 40. The grossing procedure is carried out using the SAS CALMAR statistical software routine which was developed by the French National Statistical Institute, INSEE.

The grossing factors calculated for each individual cell are a function of the number of valid responses in that cell. It can be noted that the overall number of valid responses and average grossing factor assigned in the QNHS for recent quarters was as follows:

<b>Period</b>	<b>Total valid responses</b>	<b>Total valid responses – persons age 15+</b>	<b>Average grossing factor assigned – persons aged 15+</b>
Q2 2013	53,249	40,886	87.71
Q3 2013	49,518	38,266	93.89
Q4 2013	51,403	39,872	90.22
Q1 2013	52,381	40,604	88.58
Q2 2013	52,763	40,889	87.89
Q3 2013	52,915	41,054	87.58
Q4 2014	50,515	39,048	92.24
Q1 2015	49,197	37,978	94.98
Q2 2015	50,939	39,367	91.63
Q3 2015	47,110	36,571	98.80
Q4 2015	45,047	35,136	102.99
Q1 2016	41,286	32,236	112.49
Q2 2016	44,048	34,434	105.64
Q3 2016	42,059	32,842	111.09
Q4 2016	42,853	33,317	109.70
Q1 2017	44,027	34,332	106.79
Q2 2017	41,315	32,254	114.15

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

Output results are aggregated to produce the various totals published. These aggregations are usually produced using key variables such as sex, age region, ILO status etc. In general, all aggregations produced are done by way of various SAS procedures. The aggregate results produced for any given set of classifications will be the sum of the individual grossing factors of the valid responses which belong to that set of

classifications and no estimates are made unless the data itself has been captured within the survey.

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

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.

At an aggregate level, account is taken of other national economic indicators (e.g. Live Register trends, taxation trends) when quality checking the data produced from the QNHS.

## **5 Quality**

### **5.1 Relevance**

The data is required under EU Council Regulation No 577/98. The QNHS is the primary source of a number of key national indicators including official estimates of employment and unemployment. In addition to the main labour market estimates published on a quarterly basis, QNHS data are used in a number of other reports and publications produced by the CSO. In the period between each Census of Population, the QNHS provides estimates of various demographic and other social indicators such as levels of educational attainment. Given the critical nature of estimates produced the relevance of the QNHS can be taken as very high.

Other CSO sections which make use of QNHS data include:

- National accounts
- Construction
- Earnings and employment
- Tourism

External users who make significant use of QNHS data include, but is not limited to:

- ESRI
- Central Bank
- SOLAS
- Health and Safety Authority
- The Oireachtas
- Department of Finance
- Department of Enterprise, Jobs and Innovation
- Department of Education and Skills
- Department of Health and Children
- Department of Social Protection
- National media organisations

### **5.2 Accuracy and Reliability**

#### **5.2.1. Sampling Effect & representativeness**

As QNHS is a sample survey it is subject to sampling error. Precision estimates are calculated using Jackknife replication for key variables. The table below shows estimated standard errors and confidence intervals for some of the QNHS's key estimates for the most recent quarter, Q1 2017. The 95% confidence intervals indicate the range within which we can be 95% confident the true value of the estimate in question will lie based on measurable sampling error.

<b>Q2 2017 Estimates of Standard Error, Coefficient of Variation and 95% Confidence Interval for key ILO results</b>					
<i>ILO Classification</i>	<i>Actual measure (Thou)</i>	<i>Standard Error (Thou)</i>	<i>CV (%)</i>	<i>95% CI – Lower Limit (Thou)</i>	<i>95% CI – Upper Limit (Thou)</i>
Employed	2,063.0	12.4	0.60	2,038.7	2,087.3
Unemployed	141.5	4.8	3.41	132.0	150.9
Total Labour Force	2,204.5	11.1	0.50	2,182.8	2,226.2
Not in the Labour Force	1,477.4	11.1	0.75	1,455.7	1,499.2

<b>Q2 2017 Estimates of Standard Error, Coefficient of Variation and 95% Confidence Interval for NACE Rev.2 Sector of Employment</b>					
<i>Sector of Employment</i>	<i>Actual measure (Thou)</i>	<i>Standard Error (Thou)</i>	<i>CV (%)</i>	<i>95% CI – Lower Limit (Thou)</i>	<i>95% CI – Upper Limit (Thou)</i>
A Agriculture, forestry and fishing	110.1	5.4	4.88	99.6	120.6
B – E Industry	260.1	6.0	2.30	248.3	271.8
F Construction	147.4	4.5	3.05	138.6	156.3
G Wholesale and retail trade; repair of motor vehicles and motorcycles	278.4	6.1	2.21	266.4	290.4
H Transportation and storage	95.9	3.8	3.98	88.4	103.4
I Accommodation and food service activities	151.9	5.5	3.61	141.2	162.7
J Information and Communication	92.5	4.1	4.47	84.4	100.6
K-L Financial, insurance and real estate activities	100.2	4.4	4.38	91.6	108.8
M Professional, scientific and technical activities	119.6	4.8	3.99	110.2	128.9
N Administration and support service activities	74.0	3.3	4.49	67.5	80.5
O Public administration and defence; compulsory social security	105.1	3.9	3.74	97.4	112.8
P Education	156.9	5.1	3.27	146.9	166.9
Q Human health and social work activities	259.8	6.8	2.63	246.4	273.2
R-U Other NACE activities	104.6	3.9	3.76	96.9	112.3



Variance estimation for stratified household surveys is complex and there are a number of different methods. Further information is also available from the following links regarding variance analysis. It can also be noted that CSO continues to examine alternative methods of estimation and will expand the availability of measures for which such data is produced.

[http://ec.europa.eu/eurostat/web/products-manuals-and-guidelines/-/KS-RA-13-029?inheritRedirect=true&redirect=%2Feurostat%2Fpublications%2Fmanuals-and-guidelines%3Fp\\_p\\_id%3D101\\_INSTANCE\\_8v4nUYMbAXCj%26p\\_p\\_lifecycle%3D0%26p\\_p\\_state%3Dnormal%26p\\_p\\_mode%3Dview%26p\\_p\\_col\\_id%3Dcolumn-2%26p\\_p\\_col\\_count%3D1%26\\_101\\_INSTANCE\\_8v4nUYMbAXCj\\_delta%3D20%26\\_101\\_INSTANCE\\_8v4nUYMbAXCj\\_keywords%3D%26\\_101\\_INSTANCE\\_8v4nUYMbAXCj\\_advancedSearch%3Dfalse%26\\_101\\_INSTANCE\\_8v4nUYMbAXCj\\_andOperator%3Dtrue%26p\\_r\\_p\\_564233524\\_resetCur%3Dfalse%26\\_101\\_INSTANCE\\_8v4nUYMbAXCj\\_cur%3D3](http://ec.europa.eu/eurostat/web/products-manuals-and-guidelines/-/KS-RA-13-029?inheritRedirect=true&redirect=%2Feurostat%2Fpublications%2Fmanuals-and-guidelines%3Fp_p_id%3D101_INSTANCE_8v4nUYMbAXCj%26p_p_lifecycle%3D0%26p_p_state%3Dnormal%26p_p_mode%3Dview%26p_p_col_id%3Dcolumn-2%26p_p_col_count%3D1%26_101_INSTANCE_8v4nUYMbAXCj_delta%3D20%26_101_INSTANCE_8v4nUYMbAXCj_keywords%3D%26_101_INSTANCE_8v4nUYMbAXCj_advancedSearch%3Dfalse%26_101_INSTANCE_8v4nUYMbAXCj_andOperator%3Dtrue%26p_r_p_564233524_resetCur%3Dfalse%26_101_INSTANCE_8v4nUYMbAXCj_cur%3D3)

### **5.2.2. Non-Sampling Effects**

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 QNHS.

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, call back to around 2% of households to check the quality of the collected data.

#### **5.2.2.1 Quality of the Data Sources used (other than survey register)**

Not applicable.

#### **5.2.2.2 Register Coverage**

The entire stock of private households at the time of the most recent Census of Population in the country represents the full sampling frame for the QNHS. The sample based on the 2011 Census was first introduced on a wave by wave basis in Q4 2012 and was fully in effect as of Q4 2013.

To reduce response burden old samples are examined so as to avoid an overlap, i.e. blocks in the old sample were deliberately excluded from the new sample to avoid response burden for included households.

### 5.2.2.3 Non-response (Unit and Item)

Currently there is no non-response adjustment used in the QNHS. The table below gives a break down of the response and non-response to the QNHS for the current release as well as releases published in the last year:

	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017
<b>Target households</b>	26,000	26,000	26,000	26,000	26,000
<b>Houses dropped*</b>	3,560	4,338	3,960	3,859	4,921
<b>Revised household target</b>	22,440	21,662	22,040	22,141	21,079
<i>of which:</i>					
<b>Vacant</b>	2,377	2,478	2,458	2,391	2,337
<b>Uncontactable</b>	1,930	1,913	2,063	1,892	1,854
<b>Refusal</b>	1,687	1,623	1,691	1,734	1,594
<b>Actual houses interviewed</b>	16,446	15,648	15,828	16,124	15,294
<i>of which:</i>					
<b>Insufficient data to assign grossing factor</b>	26	18	20	8	7
<b>Final total number of houses used to generate outputs</b>	16,420	15,632	15,808	16,116	15,287

\* Households are sometimes dropped due to staffing shortages and unforeseen local circumstances.

### 5.2.2.4 Measurement Errors

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

- The quality of the data collected is improved using regular field staff training (including the use of video recording of training interviews) and debriefings – for example, suggestions from field staff regarding the wording of certain questions.
- Respondent effects - most of the requested information is readily available to respondents. Proxy responses are not allowed for certain questions (for example

income). A lot of the national modules only allow direct responses to improve data quality.

- Comprehension errors - most of the terms used by the survey are readily understood, although some issues occasionally arise.

#### 5.2.2.5 Processing Errors

- 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.
- Coding error: Checks are in place to minimise this risk, particularly with respect to occupational coding. The coding is initially performed in the field (interviewers using the Blaise application) with checks on this work then performed in the survey area.

#### 5.2.2.6 Model-related Effects

Not applicable.

### 5.3 Timeliness and Punctuality

#### 5.3.1 Provisional Results

No provisional outputs are published.

#### 5.3.2 Final Results

Since the third quarter of 2012, results have been published in the ninth week after the end of the quarter (the end of quarter is the Sunday of the final reference week in the quarter). The target is T+56 days and actual timeliness for recent quarters is:

Period	End of quarter date	Publication date	Timeliness (days)
Q1 2015	29/03/2015	21/05/2015	53
Q2 2015	28/06/2015	26/08/2015	59*
Q3 2015	27/09/2015	17/11/2015	51
Q4 2015	03/01/2016	23/02/2016	51
Q1 2016	03/04/2016	24/05/2016	51
Q2 2016	03/07/2016	23/08/2016	51
Q3 2016	02/10/2016	22/11/2016	51
Q4 2016	01/01/2017	21/02/2017	51
Q1 2017	02/04/2017	23/05/2017	51
Q2 2017	02/07/2017	22/09/2017	82**

\* Note that the QNHS release was postponed as a result of a planned upgrade to the CSO website during the week of August 17<sup>th</sup> to 24<sup>th</sup> 2015 inclusive.

\*\* Note that this delay arose due to the phased implementation of a major redevelopment of the CSO's household surveys in the context of a significant Household Survey Development (HSD) project.

The main indicators which are published in the core release are ILO status (employed, unemployed etc.), industry of employment, occupation of employment, status of employment, duration of unemployment etc. Indicators are published by a range of classifications including sex, age, nationality, region of residence and highest level of education attained although not all indicators are published by each classification due to small cell sizes.

The primary classification used for the QNHS results is the ILO (International Labour Office) labour force classification. Labour Force Survey data on this basis have been published since 1988. The ILO classification distinguishes the following main subgroups of the population aged 15 or over:

- In Employment: Persons who worked in the week before the survey for one hour or more for payment or profit, including work on the family farm or business and all persons who had a job but were not at work because of illness, holidays etc. in the week.
- Unemployed: Persons aged 15-74 who, in the week before the survey, were without work and available for work within the next two weeks, and had taken specific steps, in the preceding four weeks, to find work.
- Inactive Population (not in labour force): All other persons.

The labour force comprises persons employed plus unemployed.

Variables which are not published but required by Eurostat include for example work patterns, methods used in search for employment and current education involvement. Unpublished variables are often used in the calculation of European indicators such as life long learning and other education related matters. Such additional variables are provided by the Labour Market Analysis unit in ad-hoc data requests etc.

The QNHS publications can be found on the CSO website

<http://www.cso.ie/en/statistics/labourmarket/>

#### **5.4 Coherence**

Coherence checks are regularly carried out with auxiliary sources – for example other CSO releases such as Live Register, Retail Sales and external sources such as taxation trends, redundancy information etc. In particular the trend of the Live Register going up or down is used to coherence check QNHS results.

## **5.5 Comparability**

To ensure comparability with other official statistics standard classifications are used for QNHS estimates (e.g. NACE Rev 2 for industry, UK SOC 2010 for occupation). The classifications used are in the main set by EU regulation.

Two major changes in recent times were the change of industrial activity classification from NACE Rev 1.1 to NACE Rev 2 and the change of occupation coding from UK SOC 90 to UK SOC 2010. In the main these changes were required due to changes in the applicable EU regulation. To facilitate users, the CSO backcast industrial coding data to Q1 1998 and backcast occupation coding data to Q1 2007.

Also in Q1 2009 the QNHS changed over to a calendar quarter basis as described under section 2.5 above and section 5.6.2 below. All data from Q4 1997 onwards was revised to calendar quarter data and results are available on the website. Again this ensures greater comparability with other quarterly data which is typically compiled on a calendar quarter basis (for example quarterly national accounts). A note on the changeover to NACE Rev. 2 and the introduction of calendar quarters is available on the CSO website in the labour market releases and publications section.

<http://www.cso.ie/en/media/csoie/qnhs/documents/calendar/supplementarynote.pdf>

Up to and including Q1 2006 the annual population estimates have been calculated using the de facto definition of population (i.e. all persons present in the state). From Q2 2006 onwards a new concept of usual residence was implemented, i.e. all persons usually resident and present in the state plus absent persons who are usually resident in Ireland but temporarily away from home and outside the state. This again ensures comparability with other demographic statistics where usual residence is taken as the most appropriate population definition. In 2008 revisions were produced to implement this change in methodology (see section 5.6.2).

## **5.6 Accessibility and Clarity**

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

All publications are available on the CSO website. Information on methodology is also available on the website. The background notes on the publication provide some detail on the survey.

For the core QNHS publication, a press conference is held every quarter to enable users and commentators to fully understand the data or seek further clarification.

Ad-hoc analysis can also be produced on request.

Anonymised microdata (for all calendar quarters) is made available to researchers via the Irish Social Science Data Archive (ISSDA). Such data is accessible by researchers applying directly to the ISSDA.

For further information see:

<http://www.ucd.ie/issda/>

Access to a Research Microdata Files (RMFs) can be requested from the CSO under the CSO's microdata access policy. Extensive use is made of this facility by the research community.

For further information see:

<http://www.cso.ie/en/aboutus/dissemination/accesstomicrodatarulespoliciesandprocedures/researchaccesstomicrodatafiles/>

## **5.6.2 Revisions**

The most recent revisions to the QNHS data series were scheduled revisions arising as a result of the 2011 Census of Population. As a result of the Census, new population estimates were calculated on a quarterly basis using the 2011 Census of Population figures as a base. These new population estimates were then used as a new grossing frame for the quarterly QNHS data and as a result, the estimates previously published were revised to take account of these new grossing frames for each quarter. This work was completed in 2012 and results for the entire new set of data were issued on November 29 2012 with the publication of result for Q3 2012.

Inter-censal revisions of the type described above will be completed every 5 years after each Census of Population. The CSO plans to publish the revisions based on the 2016 Census of Population in Q4 2017.

## **5.6.3 Publications**

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

QNHS main labour market estimates are published every quarter with a target release date of T+56 days. In addition to QNHS quarterly releases, modules are published on an ad hoc basis. Further information regarding these modules is available from this link:

<http://www.cso.ie/en/qnhs/releasesandpublications/qnhs-specialmodules/>

### **5.6.3.2 Statistical Reports**

QNHS contributes data to a number of statistical releases in the office such as Men and Women in Ireland, Measuring Ireland's Progress, the CSO Yearbook etc.

### **5.6.3.3 Internet**

All QNHS publications are available on the CSO website in publication format. In addition data is made available via the CSO's main databank dissemination tool and is also hosted on the CSO website in Excel format:

Releases and publications

<http://www.cso.ie/en/statistics/labourmarket/>

Databank dissemination

<http://www.cso.ie/px/pxeirestat/statire/SelectTable/Omrade0.asp?Planguage=0>

#### **5.6.4 Confidentiality**

The confidentiality of all information provided to the CSO by individual respondents is guaranteed by law under the 1993 Statistics Acts. All CSO office and field personnel become "Officers of Statistics" on appointment and are liable to penalties under this Act if they divulge confidential information to any outside person or body. Extreme precautions are taken to ensure that there are no violations of this principle throughout the survey process. The laptops on which the data was collected are encrypted and contain several layers of password protection. Data are 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.

## **6 Additional documentation and publications**

The main CSO QNHS homepage can be found at the following link:

<http://www.cso.ie/en/statistics/labourmarket/>

Statcentral – Ireland’s portal to official statistics:

<http://www.cso.ie/px/pxeirestat/statire/SelectTable/Omrade0.asp?Planguage=0>

Eurostat issue many releases which use QNHS data and the central repository for such data can be found as below:

<http://ec.europa.eu/eurostat/web/lfs/publications/results>