



**An
Phríomh-Oifig
Staidrimh**

Central
Statistics
Office

Standard SIMS Report:

**Population and Labour force
Projections 2023-2057**



Single Integrated Metadata Structure (SIMS) Report

For

Population and Labour force Projections 2023-2057

This documentation applies to the reporting period:

2024

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13/11/2024



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2. Introduction

Population and labour force projections are published to provide users with demographic estimates for the purposes of planning, both in the public and private sector.

3. Contact

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4. Metadata Update

4.1. Metadata last certified

25/11/2024

4.2. Metadata last posted

November 2024

4.3. Metadata last update

13/11/2024



5. Statistical Presentation

5.1. Data Description

The CSO produces population and labour force projections after every Census, estimating the population for 35 years after the Census and the labour force for 15 years. Estimates are provided under varying scenarios, three for the population and three for the labour force. They are also available broken down by single year of age and by gender.

- Fertility assumptions:

Total fertility rate to decrease from 1.55 to 1.3 by 2037 and to remain constant thereafter to 2057.

- Mortality assumptions:

Mortality rates for males and females are both assumed to improve at 2.5% per annum in the short-term to 2047. The long-term rate of improvement is assumed to be 1.5% per annum (unchanged since the last report). The short-term rate declines linearly over a 25-year period to the long-term rate. These rates are assumed to apply to all ages up to age 90.

These assumptions will result in gains in life expectancy from 80.2 years in 2022 to 86.2 years in 2057 for males and from 83.9 years in 2022 to 89.1 years in 2057 for females.

- Migration assumptions:
 - M1: Net migration starting at +75,000 in 2022 and decreasing incrementally to +45,000 per annum by 2027 and remaining at this level to 2057.
 - M2: Net migration starting at +75,000 in 2022 and decreasing incrementally to +30,000 per annum by 2032 and remaining at this level to 2057.
 - M3: Net migration starting at +75,000 in 2022 and decreasing incrementally to +10,000 per annum by 2032 and remaining at this level to 2057.

Labour Force

- Persons aged 15 – 24
 - Gentle increases in labour force participation anticipated for younger males and females (students and non-students).
 - Convergence between males and female labour force participation rates.
 - 3rd Level attendance – Student rates expected to remain broadly in line with 2022 levels to 2037.
- Persons aged 25 – 74+
 - Female participation in the labour force is no longer disaggregated by marital status.
 - Increased labour force participation across most 5-year age groups to 2037 for both males and females.
 - The largest percentage increases in labour force participation are projected within the older age cohorts.

These scenarios were agreed following consultation with an Expert Group on Population Projections.

5.2. Classification System

Not applicable.



5.3. Sector Coverage

Not applicable.

5.4. Statistical Concepts and definitions

Usually resident population: All persons resident in the State, for a period that is, or is expected to be at least 12 months. Persons who are usually resident in Ireland but are temporarily away from home and outside the State on Census night are included in the usually resident population.

Age specific fertility rate: The age specific fertility rate for a particular age group is the number of live births to women in that age group per 1,000 females in the same age group.

Total fertility rate (TFR): The TFR represents the theoretical average number of children who would be born alive to a woman during her lifetime if she were to pass through her childbearing years (ages 15 - 49) conforming to the age specific fertility rates of a given year. The rate refers to a theoretical female cohort. The TFR is compiled by summing the age specific fertility rates for the relevant five-year age groups, dividing by 1,000 and multiplying by 5. The small number of births for which the age of the mother is not stated is distributed in proportion to the stated categories.

Life expectancy: The average number of additional years a person would live if current mortality trends were to continue. The expectation of life at birth represents the mean length of life of individuals who are subjected since birth to current mortality trends. Life expectancy is usually compiled on the basis of a life table showing the probability of dying at each age for a given population according to the age specific death rates prevailing in a given period.

Survivorship ratio: The survivorship ratio at age x , S_x , is calculated as $S_x = L_x / L_{x-1}$ where L_x is the population aged between x and $x+1$ assuming that 100,000 births occur each year according to the Life Tables.

Immigration: The action by which a person establishes his or her usual residence in the State for a period that is, or is expected to be, of at least 12 months, having previously been usually resident in another Member State or a third country.

Emigration: The action by which a person, having previously been usually resident in the State, ceases to have his or her usual residence in the State for a period that is, or is expected to be, of at least 12 months.

Net migration: The net effect of immigration and emigration. A positive entry denotes that inward migration exceeds outward migration and vice-versa.

Labour force participation rate: The number of persons at work or unemployed (either looking for first regular job or having lost or given up previous job) in a particular age group expressed as a percentage of all persons in that age group.

Young dependency ratio: The population aged 0 - 14 years expressed as a percentage of the population aged 15 - 64 years.

Old dependency ratio: The population aged 65 years and over expressed as a percentage of the population aged 15 - 64 years.

Total dependency ratio: The sum of the young and old dependency ratios.

5.5. Statistical Unit

Individual persons.



5.6. Statistical Population

The population concept of usual residence is applied. Counted under this concept are all persons who are permanently resident in the State and those who intend to reside in the State for a period of 12 months or more.

5.7. Reference Area

State

5.8. Time Coverage

2022-2057

5.9. Base period

2022

6. Unit of Measure

People

7. Reference Period

Every year from 2022-2057

8. Institutional Mandate

8.1. Legal Acts and other agreements

There is no legal basis to the projections but there is also no actual data collected.

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/lgdp/csodatapolicies/statisticalconfidentiality/>

9.2. Confidentiality – data treatment

The data relates to future population and labour force estimates. Additionally, single year of age is top-coded to 99 plus.

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
<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). Selected extracts from the results are posted on the CSO's data dissemination database, PxStat.

11. Frequency of Dissemination

Population and labour force projections are ordinarily published every five years, during each intercensal period. The publication is usually made around two months after the second anniversary of the Census of Population (usually April of years ending in 1 or 6). This allows for the incorporation of Census revisions into the ongoing intercensal population estimates.

12. Accessibility and clarity

12.1. News release

The most recent press statement for the release can be found on the CSO website by following the link:
<https://www.cso.ie/en/csolatestnews/pressreleases/2018pressreleases/pressstatementpopulationandlabourforceprojections2017-2051/>



12.2. Publications

Publications are available in .PDF format prior to 2018 and in electronic release format thereafter, see: <https://www.cso.ie/en/statistics/population/populationandlabourforceprojections/>

Population and labour force projections publications dating back to 2008 are available on the CSO website while each release contains information on the methodology in the background notes of the publication. A press conference is held on publication day to enable users and commentators to fully understand the data or seek further clarification.

12.3. On-line database

Population and Labour Force Projections tables are available on the CSO dissemination database PxStat. They can be accessed directly from the following link: <https://data.cso.ie/product/plfp2022>

12.3.1. AC 1. Data tables - consultations

During the period 01/01/2024 till 30/06/2024 the Population and Labour force Projections releases were accessed a total of 6308 times, out of which there were 3426 unique users.

12.4. Micro-data Access

Not applicable.

12.5. Other

Not applicable.

12.5.1. AC2. Metadata consultations

Not calculated.

12.6. Documentation on Methodology

Further information on the Methodology used to compile the Population and Labour force Projections 2023-2057 release can be found in the CSO's methods page for the release, directly from these links: <https://www.cso.ie/en/methods/population/populationandlabourforceprojections/>

12.6.1. AC3 – Metadata completeness – rate

Not calculated.

12.7. Quality Documentation

For more information and documentation on the quality associated with this release please refer to the CSO's methods page: <https://www.cso.ie/en/methods/qualityreports/populationandlabourforceprojections/>

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

As part of the overall CSO Quality strategy an annual self-assessment exercise is completed to evaluate the quality of processes and outputs. The latest iteration of this exercise showed that the methods used for processing the data and the final disseminated outputs are of sufficient quality to meet user needs.

14. Relevance

14.1. User Needs

The CSO population and labour force projections are the primary source of such estimates and are critical with regards to providing evidence-based data for future planning and policy formulation. External users who make significant use of the population estimates data include, but are not limited to:

The ESRI, The Department of Finance, The Department of Health, The Department of Children and Youth Affairs, The Department of Environment and Natural Resources, The Oireachtas, Special Interest Groups (particularly those with an interest in migration) and National media organisations.

The projections meet a wide range of national requirements. The Irish Government and various public sector bodies such as the HSE etc., are the primary clients and the data is used as an input for a wide range of public policy and planning activities.

14.1.1. Main National Users

The data has wide national usage from government departments (particularly those involved in policy formation and planning), economists and research bodies. A number of special interest groups working in the area of migration and integration also require the data. There are also some international users.

14.1.2. Principal External Users

Not applicable.

14.2. User Satisfaction

Not calculated.

14.3. Data Completeness

Not calculated.

14.3.1. Data Completeness rate

Not calculated.

15. Accuracy and reliability

15.1. Overall accuracy

The Census which provides the base population is considered to be highly accurate. Future fertility, mortality and migration flows are difficult to estimate but the Expert Group use their expertise to provide the best estimates possible.



It is important to remember that these projections are not an attempt to predict the future but rather presents how the population could evolve under different scenarios.

15.2. Sampling Error

Not applicable.

15.2.1. A1. Sampling error indicator

Not applicable.

15.3. Non-sampling Error

Not applicable.

15.3.1. Coverage error

Not applicable.

15.3.1.1. A2. Over coverage rate

Not applicable.

15.3.1.2. A3. Common units – proportion

Not applicable.

15.3.2. Measurement error

Measurement error is not formally measured for this release. However new population and labour market projections are completed following the publication of the Census of Population

15.3.3. Non-Response Error

Not applicable.

15.3.3.1. Unit non-response rate

Not applicable.

15.3.3.2. Item non-response rate

Not applicable.

15.3.4. Processing error

Not applicable.

15.3.5. Model assumption error

Not calculated.



16. Timeliness and punctuality

16.1. Timeliness

Population and Labour force Projections is a projection of events rather than a release, timeliness does not apply,

16.1.1. TP1. Time lag – First results

No provisional outputs are published.

16.1.2. TP2. Time lag – Final results

Not applicable.

16.2. Punctuality

Population and Labour Force projections statistics are always released on the date specified in the CSO's advanced 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

Not applicable.

17.2.1. Length of Comparable Time series

35 years

17.3. Coherence – cross domain

New population and labour market projections are completed following the publication of the Census of Population (every 5 years).

17.3.1. Coherence – Sub annual and annual statistics

Not applicable.

17.3.2. Coherence with National Accounts

Not applicable.

17.4. Coherence – internal



Not applicable.

18. Cost and Burden

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

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

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

The projections are not revised but new projections are produced following each Census.

19.2.1. Data Revision – Average size

Not applicable.

20. Statistical processing

20.1. Source Data

The Census 'usual residence' concept is used to establish the 'base population' i.e. all persons usually resident and present in the State on census night plus absent persons who are usually resident in Ireland but are temporarily away from home and outside the State on census night.

20.1.1. Population and sampling frame



The Census of Population data (2022) is used to establish the base population, based on the usual resident population count. The population is incremented forward each year.

20.1.2. Sampling design

Not applicable.

20.1.3. Survey size

Not applicable.

20.1.4. Survey technique

Not applicable.

20.2. Frequency of data collection

Every five years.

20.3. Data Collection

The data collection methodology is described in the following headings.

20.3.1. Type of Survey/Process

The Census (2022) is used to establish the base population. The process used to produce the estimates is called the demographic component method which projects the 2022 usually resident (base) population forward under the chosen assumptions governing births, deaths and net migration.

20.3.2. Questionnaire (including explanations)

Not applicable.

20.3.3. Survey Participation

Not applicable.

20.3.4. Data Capture

Not applicable.

20.4. Data Validation

Not applicable.

20.5. Data Compilation

Population

After the usually resident based population is aged a year, the appropriate survivorship ratios are applied, accounting for mortality and giving the surviving population for that year. The gross inward and outward migration rates which this population is assumed to experience in the year is applied (at the appropriate age group and gender) by using the patterns derived from the intercensal migration flows.

The assumed fertility rates are applied to the female population aged 15 - 49 to give the number of births in the year (adjusted downward for infant mortality) to give the total projected population for that year. The age specific fertility rates for the projection year are applied to the projected female population to estimate the projected births. These births are then divided into males and females on the basis of the ratios



experienced for recent years. The appropriate survivorship ratios are then applied to male and female births before these are added in to yield the total projected population.

This population then becomes the base population for the following year and the process continues from 2023 to 2057.

There is one fertility rate scenario used, one mortality rate and three migration rates (M1, M2 and M3), giving three population scenarios.

Labour force projections methodology

The assumed labour force participation rates for males and females are applied to the projected population aged 15 years and over to give the projected labour force. These participation rates are based on age, sex, the proportion of young people who are students and the estimated proportion of these young people who are in the labour force.

There are three labour force scenarios used (M1, M2 and M3). Fertility does not impact on the labour force projections as these projections only go to 2037 and this is too short a time for anybody born in the period 2023 to 2037 to enter labour force.

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

Not applicable.

20.5.1.1. A7. Imputation rate

Not calculated.

20.5.2. Grossing and Weighting

Not applicable.

20.6. Adjustment

Not applicable.

20.6.1. Seasonal Adjustment

Not applicable.

21. Comment