

Standard SIMS Report:

Regional Population Projections 2023-2042

Single Integrated Metadata Structure (SIMS) Report

For

Regional Population Projections 2023-2042

This documentation applies to the reporting period: **2023-2042**

Last edited:

13 February 2025



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2. Introduction

Regional population projections are published to provide users with demographic estimates for the purposes of planning, both in the public and private sector. They show regional population projections under three different scenarios for the period 2023-2042.

3. Contact

Contact Organisation: Contact Organisation Unit: Contact Name: Contact person function: Contact Mail address: Contact email address: Contact Phone Number: Contact Fax Number: Central Statistics Office Life Events and Demography Eva Leahy Statistician Central Statistics Office, Skehard Road, Cork T12 X00E demography@cso.ie +353 21 4535936

4. Metadata Update

4.1. Metadata last certified

13 February 2025

4.2. Metadata last posted

13 February 2025

4.3. Metadata last update

13 February 2025



5. Statistical Presentation

5.1. Data Description

The CSO produces regional population projections after every Census, by projecting the components of population change forward from the Census base population. Projections are provided under varying scenarios governing fertility, mortality and migration. On this occasion three regional projection scenarios were produced to include:

- Ireland's usual resident population
- Regional growth
- Fertility and mortality rates
- State-level intercensal annual international migration

5.2. Classification System

Classification of Regional Authority areas:

The Nomenclature of Territorial Units for Statistics (NUTS) were created by Eurostat in order to define territorial units for the production of regional statistics across the European Union. In 2003 the NUTS classification was established within a legal framework (Regulation (EC) No 1059/2003).

As the administrative territorial breakdown of EU Member States is the basis of the NUTS classification, changes made under the 2014 Local Government Act prompted a revision to the Irish NUTS-2 and NUTS-3 Regions. These changes included the amalgamation of the local authorities of Tipperary North and South, Limerick City and County Councils and Waterford City and County Councils. In addition three Regional Assemblies were established (Northern & Western, Southern, Eastern & Midland).

The main changes at NUTS-3 level are the transfer of South Tipperary from the South-East into the Mid-West NUTS-3 region and the movement of Louth from the Border to the Mid-East NUTS-3 Region. There are now three NUTS-2 Regions which correspond to the Regional Assemblies established in the 2014 Local Government Act and are groupings of the new NUTS-3 Regions. The revisions made to the NUTS boundaries have been given legal status under Commission Regulation (EU) 2016/2066. The new NUTS-2 and NUTS-3 structure and classification are displayed in the table below:

Northern & Western NUTS 2		Southern NUTS 2		Eastern & Midlands NUTS 2	
NUTS 3	Counties	NUTS 3	Counties	NUTS 3	Counties
Border	Cavan	Mid-West	Clare	Dublin	Dublin City
	Donegal		Limerick		Dun
	Leitrim		Tipperary		Laoghaire-
	Monaghan				Rathdown
	Sligo				Fingal
					South Dublin
		South-East	Carlow	Mid-East	Kildare
			Kilkenny		Louth
			Waterford		Meath
			Wexford		Wicklow
West	Galway	South-West	Cork	Midland	Laois
	Mayo		Kerry		Longford
	Roscommon				Offaly
					Westmeath

5.3. Sector Coverage



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, Sx, is calculated as Sx=Lx/Lx-1 where Lx 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.

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

Total usually resident population in Ireland

5.7. Reference Area

Ireland.

5.8. Time Coverage

Regional Population Projections 2023 - 2042.

5.9. Base period

Not applicable.

6. Unit of Measure

Number of persons in thousands Ratios are expressed as percentages

7. Reference Period

2023 - 2042

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 estimates. Additionally, single year of age it top-coded to 99 plus. All data is fully anonymised.

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: <u>https://www.cso.ie/en/csolatestnews/releasecalendar/</u>

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

Regional population projections are published are published every five years. The publication in currently published around 30 months after the Census of Population is conducted (usually April of years ending in 1 or 6). This allows for the incorporation of Census revisions into the ongoing inter-censal population estimates that provide the base population for the projections.

12. Accessibility and clarity

12.1. News release

Not applicable.

12.2. Publications

The projections are published on the CSO website every five years. The most recent Publication covering the period 2023-2042 can be found in the CSO website via the following link: <u>https://www.cso.ie/en/statistics/population/regionalpopulationprojections/</u>

12.3. On-line database

Regional Population Projections tables are available on the CSO dissemination database PxStat. They can be accessed directly from the following link: <u>https://data.cso.ie/product/PLFP2022</u>

12.3.1. AC 1. Data tables - consultations

Not calculated.

12.4. Micro-data Access

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 produce this survey can be found on the CSO website or via the following link: <u>https://www.cso.ie/en/methods/population/regionalpopulationprojections/</u>

12.6.1. AC3 – Metadata completeness – rate

Not calculated.

12.7. Quality Documentation

The Quality report for this survey can be found on the CSO website or via the following link: <u>https://www.cso.ie/en/methods/qualityreports/regionalpopulationprojections/</u>

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

Not currently assessed.

14. Relevance

14.1. User Needs

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.

The CSO regional population 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 regional population projections 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.

Expert Group meetings



As in previous iterations of the projections, the CSO convened an Expert Group on Population Projections. The group met three times, on 3rd October 2024, 25th October 2024 and 15th November 2024 and agreed on the assumptions to be used in the projections. The CSO would like to thank all members of the group for participating in the projections process.

14.1.1. Main National Users

Government, economic consultants and analysts, general public and specialist users of population statistics.

14.1.2. Principal External Users

International bodies

14.2. User Satisfaction

Not measured.

14.3. Data Completeness

Not applicable.

14.3.1. Data Completeness rate

Not calculated.

15. Accuracy and reliability

15.1. Overall accuracy

The base population is sourced from the national Census of Population and therefore is fully representative and highly accurate. Precision estimates are not calculated as part of the process.

15.2. Sampling Error

Not applicable.

15.2.1. A1. Sampling error indicator

Not applicable.

15.3. Non-sampling Error

Non applicable.

15.3.1. Coverage error

Not applicable.

15.3.1.1. A2. Over coverage rate

Not calculated.

15.3.1.2. A3. Common units – proportion Not applicable.



15.3.2. Measurement error

The CSO are assisted with the projections work by an Expert Group consisting of representatives of government departments, as well as universities and other relevant bodies.

Measurement error is not formally measured for this release. However new regional projections are completed following the publication of the Census of Population (every 5 years).

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 calculated.

15.3.4. Processing error

Non applicable.

15.3.5. Model assumption error

The demographic components method model, with the different scenarios, is the entire basis for the projections. Therefore, altering the scenarios fundamentally alters the outcome.

Regional Limitations

Because of the greater uncertainty attached to regional as distinct from national population projections, the results for individual regions must be regarded as more provisional than national figures. The objective of the regional population projections is to determine how the population of the various regions would evolve in the period to 2042 if recent demographic trends were to continue, and are not forecasts.

16. Timeliness and punctuality

16.1. Timeliness

Final results covering the projection period 2023-2042 were published on January 29th, 2025

16.1.1. TP1. Time lag – First results

No provisional outputs are published.

16.1.2. TP2. Time lag – Final results

No time lag as the released data refers to projected statistics

16.2. Punctuality

Regional Population 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

Not applicable.

17.3. Coherence – cross domain

The regional population projections are required to be consistent with the State population and labour force projections. The State projections (link below) are published in advance of the regional projections. <u>https://www.cso.ie/en/statistics/population/populationandlabourforceprojections/</u>

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 burden are not applicable. There are no estimates of the internal cost of producing these statistics.

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 calculated.

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.

Survey data – The LFS provides current and historic regional migration flows to inform the future projections.

Administrative data – The Vital Statistics unit provides current and historic regional births and deaths data which it receives from the General Register Office (GRO) to inform the projections.

20.1.1. Population and sampling frame

The Census of Population data is used to establish the base population. 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

20.2. Frequency of data collection

Five years.

20.3. Data Collection

20.3.1. Type of Survey/Process

Multi source process based on survey and administrative data, both collected for purposes other than the generation of population projection estimates.

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

Demographic component method

The model used for these regional population projections is the Demographic Component Method which projects the census usually resident (base) population forward under the chosen assumptions governing births, deaths and net migration.

The Demographic Component Method (DCM) works as follows:

- 1. Beginning with the first year after the base year, the usually resident population is aged one year using suitable survivorship ratios. The survivorship ratios reflect the underlying mortality assumptions determined by the Expert Group. This gives the **Surviving Population**. The same national rates are applied at a regional level.
- 2. Gross inward and outward migration rates that are expected to be experienced by the groups within the usually resident population are applied. The resulting estimate for net migration is then applied to provide the **Surviving Population adjusted for net migration**.
- 3. For females aged between 15-49, the assumed specific regional fertility rates are applied to calculate the assumed number of births in the year. The assumed infant mortality rates are then applied. By combining the adjusted number of births with the number of females and the number of males, the **Total Projected Population** for each year is obtained.
- 4. From the national projected population for each year, regional allocations of international and internal migration are applied. This provides the total projected population for each region for each year.
- 5. This process then continues for Base Year + 1, Base Year + 2 all the way to the end of the projection period (in this round of projections, 2042).

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



20.5.1.1. A7. Imputation rate Not calculated.

20.5.2. Grossing and Weighting Not applicable.

20.6. Adjustment

20.6.1. Seasonal Adjustment Not applicable.

21. Comment