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REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND THE COUNCIL

on the implementation of Regulation (EU) No 1260/2013 on European demographic statistics

1. INTRODUCTION

Regulation (EU) No 1260/2013 on European demographic statistics¹ (hereinafter also referred to as 'the Regulation') establishes a common legal framework for the development, production and dissemination of European statistics on population and vital events.

Member States had previously submitted such data voluntarily for a number of years but, as these were based on their varying demographic definitions, concepts and methods, there were risks of heterogeneity, incomparability, inconsistency and lack of timeliness. The common framework was intended to meet the need for the high-quality annual demographic statistics considered fundamental for formulating and evaluating a wide range of policies, with particular regard to social and economic issues, at national and regional level. This is particularly important as statistics on population and vital events are used as a denominator for a wide range of policy indicators.

Article 11 of the Regulation requires the Commission to submit a first report to the European Parliament and the Council on the implementation of the Regulation by 31 December 2018 and a second report by 31 December 2023. The present document is that first report.

Section 2 of this report gives an overview of European demographic statistics and in particular of the requirements of the Regulation and the related implementing measure adopted by the Commission.²

Section 3 takes stock of how the Regulation has been implemented, with reference to the established quality criteria for European statistics, including comparability and the burden on data providers and respondents in the Member States.

Section 4 describes the data collection and estimation methods used, including those used to estimate total population (Article 4 of the Regulation).

Section 5 reports on the main results of the feasibility studies on the definition of 'usual residence' and its implementation by Member States (Article 8).

Lastly, section 6 takes a forward look at issues to be considered with a view to improving the common framework, in the light of the conclusions of earlier sections.

2. OVERVIEW OF DEMOGRAPHIC STATISTICS COVERED BY THE REGULATION

The principal areas of statistics governed by Regulation (EU) No 1260/2013 are:

- population by age, sex and region of residence;
- live births by sex, month of occurrence, live-birth order, mother's age, mother's year of birth, mother's country of birth, mother's country of citizenship and mother's region of residence;
- deaths by age, sex, year of birth, region of residence, country of birth, country of citizenship and month of occurrence; and

¹ Regulation (EU) No 1260/2013 of the European Parliament and of the Council of 20 November 2013 on European demographic statistics (OJ L 330, 10.12.2013, p. 39).

² Commission Implementing Regulation (EU) No 205/2014 of 4 March 2014 laying down uniformed conditions for the implementation of Regulation (EU) No 1260/2013 of the European Parliament and the Council on European demographic statistics, as regards breakdowns of data, deadlines and data revisions (OJ L 65, 5.3.2014, p. 10).

• total 'usually resident' population³ for specific Union purposes.

The Regulation provides the legal basis for collecting the data required for:

- detailed demographic statistics on population, live births and deaths at national and regional level (Article 3); and
- measuring total population for qualified majority voting (QMV) in the Council, in particular as required under Article 238(2) of the Treaty on the Functioning of the European Union (Article 4).

As regards Article 3, while Member States are required to provide data on their 'usually resident' population some flexibility is allowed and Member States can provide data on 'legally resident' or 'registered' population and related vital events (live births and deaths). More specifically, the Regulation (Article 2(d)) stipulates that, where the circumstances for usual residence cannot be established, 'usual residence' can be taken to mean the place of legal or registered residence.

To help with the implementation of the Regulation, the Commission (Eurostat) cooperates closely with the national authorities involved in the production and supply of the relevant data. Indeed, it had done so over the many years in which data had been provided on a voluntary basis. The statistics are supplied to Eurostat by the national statistical institutes (NSIs).

Pursuant to Article 3(4) of Regulation (EU) No 1260/2013, the Commission adopted Implementing Regulation (EU) No 205/2014 in order to lay down practical arrangements for data breakdowns, transmission deadlines and revision. As a result, Member States provide Eurostat additionally with:

- provisional annual data on total population, total live births and total deaths at national level (within six months of the end of each reference year); and
- provisional monthly data on total live births and total deaths for at least the first six months of the reference year (by 30 November of that year).

Besides data provided under the Regulation, Member States transmit a certain number of tables on a voluntary basis, e.g. information on deaths by age, sex and educational attainment, which is used to calculate life expectancy by educational attainment.

The Regulation ensures, by means of strict monitoring (on the basis of extensive metadata) of adherence to the concept and definition of 'usual residence' that the population data produced for QMV (Article 4) are comparable between Member States.

³ 'Usual residence' is the place where a person normally spends the daily period of rest, regardless of temporary absences for purposes of recreation, holidays, visits to friends and relatives, business, medical treatment or religious pilgrimage. The following persons are considered to be usually residents of the geographical area in question:

[•] those who have lived in their place of usual residence for a continuous period of at least 12 months before the reference date or

[•] those who arrived in their place of usual residence during the 12 months before the reference date with the intention of staying there for at least one year.

3. QUALITY OF TRANSMITTED DATA

This section evaluates the implementation of the Regulation on the basis of standard quality criteria in line with the principles of the European Statistics Code of Practice⁴ and Article 12 of Regulation (EC) No 223/2009 on European statistics⁵.

Regulation (EU) No 1260/2013 requires Member States to collect, compile, process and transmit harmonised statistics on population and vital events. They have to ensure the quality of the data by applying specific quality criteria such as punctuality and accuracy (see below), which they have to report to Eurostat. Eurostat reviews the Member States' quality metadata and assessments, and publishes the statistics on its website in the form of multi-dimensional tables or analytical articles accompanied by the relevant metadata.

Before the entry into force of the Regulation, the Member States already provided on a voluntary basis most of the data it requires. However, data availability and completeness have improved significantly under the new legal basis. General data quality improvements have led to better data accuracy, coherence and comparability. Member States have improved the underlying data sources and the methodologies and statistical tools used for data preparation, resulting in better coverage and more punctual data transmissions. This has allowed the Commission to shorten the time needed for data dissemination, facilitating timelier data releases and improving further the accessibility of data by the users, e.g. improved metadata and harmonised data (see section 3.4 below).

In addition, the collection of the data has been merged with that of the data required under Article 3 of Regulation (EC) No 862/2007 on Community statistics on migration and international protection,⁶ in order to achieve consistency between the various population breakdowns and, to the extent possible, in the demographic balances between population, vital events and migration flows. Member States' metadata submissions have also been merged.

3.1. Relevance

The Commission uses demographic statistics in preparing regular reports, policy proposals, implementation reports required under EU legislation, and policy analysis. For example, its reports on economic, social and territorial cohesion⁷ and the 'special supplement on demographic trends'⁸ of the *EU employment and social situation quarterly review* use regional and national information on population and vital events. One direct application of the data transmitted under the Regulation is in the field of Eurostat's three-yearly demographic

⁴ <u>http://ec.europa.eu/eurostat/web/products-manuals-and-guidelines/-/KS-32-11-955</u>

⁵ Regulation (EC) No 223/2009 of the European Parliament and of the Council of 11 March 2009 on European statistics and repealing Regulation (EC, Euratom) No 1101/2008 of the European Parliament and of the Council on the transmission of data subject to statistical confidentiality to the Statistical Office of the European Communities, Council Regulation (EC) No 322/97 on Community Statistics, and Council Decision 89/382/EEC, Euratom establishing a Committee on the Statistical Programmes of the European Communities (OJ L 87, 31.3.2009, p. 164).

⁶ Regulation (EC) No 862/2007 of the European Parliament and of the Council of 11 July 2007 on Community statistics on migration and international protection and repealing Council Regulation (EEC) No 311/76 on the compilation of statistics on foreign workers (OJ L 199, 31.7.2007, p. 23).

⁷ <u>http://ec.europa.eu/regional_policy/en/information/cohesion-report/</u>

^{8 &}lt;u>http://ec.europa.eu/eurostat/documents/3217494/6917833/KE-BM-15-003-EN-N.pdf/</u> (available only in English).

population projections,⁹ which show how population size and structure could change if certain assumptions on fertility, mortality and migration remained valid. These projections are also used for the *Ageing report*,¹⁰ to assess the long-term economic and budgetary impact of population ageing.

In addition, the statistics are a key input in the EU decision-making process, as population determines Member States' QMV weightings in the Council.

The statistics produced under the Regulation are regularly used by national administrations, international organisations, academic researchers and civil society groups working on a wide range of topics and for planning, monitoring, and evaluation programmes in a number of social and economic policy areas. For example, they are used to:

- analyse population ageing and its effects on sustainability and welfare;
- evaluate fertility as part of the background for family policies; and
- calculate *per capita* statistics.

Of all the statistics disseminated by Eurostat, those relating to population are among those consulted most. The 'Population' section¹¹ on Eurostat's website presents the statistics available, the EU legislation concerned (in particular, Regulation (EU) No 1260/2013) and the data collection methods. Since mid-2016, this has been the thematic section that ranks first for the number of user consultations with yearly visualisations of the page in the range of half a million.

In 2015-2017,¹² yearly population data at national level¹³ was consistently the most popular (between 11% and 18% of views yearly) of the social statistics tables and in the top three most viewed Eurostat tables. There is growing interest among users in data on population change. 'Demographic balances and crude rates at national level'¹⁴ saw its page views increase by 66 % in 2015-2017, thus consolidating its position as one of the most popular Eurostat datasets.

These results confirm the relevance of the data for users and the public at large.

3.2. Accuracy

In line with the principle of subsidiarity, Member States are free to decide what data sources they use, in accordance with national law and practice. Scientifically-based and well-documented statistical estimation methods can be used where appropriate (Article 7 of the Regulation).

Together with the basic data, Eurostat receives metadata relating, in particular, to data accuracy and explaining *inter alia*:

⁹ <u>http://ec.europa.eu/eurostat/web/population-demography-migration-projections/population-projections-data</u> (available only in English, French and German).

¹⁰ <u>https://ec.europa.eu/info/publications/economy-finance/2018-ageing-report-underlying-assumptions-and-projection-methodologies_en</u> (available only in English).

¹¹ <u>http://ec.europa.eu/eurostat/web/population-demography-migration-projections</u> (available only in English, French and German).

¹² This covers all dissemination under the Regulation, as the data collected under Article 3 were first disseminated in the first quarter of 2015.

¹³ 'Population on 1 January' – online data code: <u>tps00001</u> (available only in English, French and German).

¹⁴ 'Population change – demographic balance and crude rates at national level' – online data code: <u>demo_gind</u> (available only in English, French and German).

- the data sources and procedures used;
- any estimation or modelling applied to the data; and
- the possible effects of these on the degree of compliance with the definitions in the Regulation.

Since the entry into force of the Regulation, validation of the data has been improved through the introduction of more, and more thorough, checks in the questionnaire. The Member States carry out these checks before transmitting the data, resulting in better overall data quality. Similarly, enhanced rules for the validation of data in Eurostat's database prior to their dissemination have further improved the quality of results.

Although many improvements have been made, specific accuracy issues still exist as regards:

- under-coverage (e.g. when people do not register their residence); and
- over-coverage (e.g. when people do not 'de-register', as often there is no obligation or incentive to do so).

In this context, Eurostat promotes the use of 'mirror flows' reported by partner Member States to resolve coverage errors due to failure to register and de-register. It has monitored this work through in-depth discussion with NSIs and by facilitating the exchange of mirror-flow data among Member States, taking into account personal data protection rules and differences in national legislation.

Eurostat and the Member States work together continuously to resolve outstanding issues and improvements are discussed and agreed in annual meetings of the Commission expert group on population statistics, where all NSIs are represented.

3.3. Timeliness and punctuality

The main deadline for supplying the bulk of the demographic data to Eurostat is 12 months after the end of the reference year; three small datasets are to be transmitted within 6, 8 and 11 months of the end of the reference year.

Considerable improvement has been observed in the punctuality of data provision under the Regulation, as compared with the previous, voluntary approach. This is due in particular to the introduction by Member States of automatic extractions from their statistical databases to comply with Eurostat's data requests and Eurostat's regular compliance monitoring. Some sporadic, non-recurring issues remain, e.g. disruptions caused by computing system malfunctions.

The more structured and complete supply of data under the Regulation has allowed Eurostat to prepare the data processing in advance and so improve the speed and efficiency of data handling and dissemination. Less time is now needed between data being received and validated, and then being disseminated on the Eurostat website. The gradual introduction of automated internal validation procedures in the questionnaires, with error feedback reporting to the national data providers, has further reduced the processing time.

3.4. Accessibility and clarity

Member States' data and EU aggregates are freely available on Eurostat's website.¹⁵ Users can access EU demography statistics¹⁶ via three main channels:

- under the heading 'Tables', pre-defined two-dimensional tables cover the most common data needs in an easily accessible way for less frequent or less specialised users;
- under the heading 'Database', multi-dimensional tables are available that allow users to make more advanced and detailed queries. On user request, Eurostat provides customised extractions to respond to very specialised or detailed data needs; and
- regularly updated articles provide an easy way in to population statistics, combining graphs, tables and analysis on a wide range of population-related subjects.¹⁷

The demographic data are included in compendium publications such as Eurostat's *Regional Yearbook*¹⁸ and detailed publications focusing on specific demography-related topics.¹⁹ Several times a year, data releases are accompanied with widely distributed press releases or short news. Eurostat promotes the use of *Statistics Explained* articles by giving more information on statistics, trends and their interpretation. Such articles²⁰ are produced and regularly updated for many data collected under the Regulation.

3.5. Comparability and coherence

European demographic statistics draw on a high degree of harmonisation as regards concepts, definitions, classifications and methodologies. Methodological issues are regularly discussed in the dedicated Commission expert group on population statistics, which also encourages the exchange of experiences and common practices in the EU and elsewhere. To ensure the comparability of the statistics, Eurostat verifies whether the data it receives are consistent internally and over time, and comparable between regions and Member States, in line with the European Statistical System's quality assurance framework.²¹

However, for the detailed statistics referred to in Article 3 of the Regulation, the strict application of the population concept of 'usual residence' has proven the hardest problem to address. Efforts are ongoing and many Member States can now approximate 'usual residence' on the basis of their national data sources. However, some Member States are aware of gaps that they cannot fill for all the detailed (in particular, regional) data levels required under Article 3. For instance, some are unable to apply the 12-month criterion for population stocks and vital events, often because the national statistical condition for a person to be included in the population is based on permanent criteria for nationals or a six-month criterion. In a few cases, data comparability is affected by specific minor issues concerning the use of the

¹⁵ Eurostat home page (<u>http://ec.europa.eu/eurostat</u>) and database (<u>http://ec.europa.eu/eurostat/data/database</u>) (both available only in English, French and German).

¹⁶ <u>http://ec.europa.eu/eurostat/web/population-demography-migration-projections</u> (available only in English, French and German).

¹⁷ <u>http://ec.europa.eu/eurostat/web/population-demography-migration-projections/population-data</u> (available only in English, French and German).

¹⁸ <u>http://ec.europa.eu/eurostat/statistics-explained/index.php/Eurostat_regional_yearbook</u> (available_only_in English, French and German).

¹⁹ For example, see the latest Eurostat news release on first population estimates (10 July 2018): <u>'EU</u> population up to nearly 513 million at 1 January 2018' (available only in English, French and German).

²⁰ <u>http://ec.europa.eu/eurostat/statistics-explained/index.php/Population</u> (available only in English, French and German).

²¹ <u>http://ec.europa.eu/eurostat/documents/64157/4392716/ESS-QAF-V1-2final.pdf/bbf5970c-1adf-46c8-afc3-58ce177a0646</u> (available only in English).

concept of 'permanent registration' only, with no time criteria for stays. To resolve these issues, further work is needed on the statistical definitions of 'population'.

Overall, demographic statistics are comparable over time. However, discontinuities may arise where Member States improve or change their methodology, or adjust the territorial units used in statistics. These are duly indicated in the data dissemination tables in Eurostat's database and documented for users through the metadata on the Eurostat website or in relevant publications.

3.6. Measures to improve quality

Eurostat continues to follow up sporadic cases of non-compliance with the Regulation, where data were incomplete, of low quality or not delivered in accordance with the legal deadlines. It monitors and assesses these aspects of data provision on an ongoing basis and contacts the Member States concerned at technical and administrative level to resolve the issues.

4. DATA COLLECTION AND ESTIMATION METHODS

4.1. Data under Article 3 of the Regulation

The Member States compile the data using their own national sources and practices, but are obliged to ensure the quality of the data and metadata they transmit, and to use data sources and methodologies that enable them to comply with common regulated definitions. Eurostat is able to review national practices, as the Member States have to report to it on the data sources, definitions and estimation methods they use and to inform it of any changes.

To comply with the Regulation, Member States have improved the quality of the statistics transmitted to Eurostat under Article 3 by using additional sources, e.g. health insurance registers, tax registers and Census 2011. In addition, in recent years the vast majority of Member States have made, or are planning or considering, major changes to the data sources and methods used for their population and housing censuses; most widely, these concern greater use of data from administrative sources and a move away from traditional door-to-door or 'mail-out mail-in' census enumerations. This has an important impact on the production of annual demographic statistics, as explained below in sections 4.3 and 5.

4.2. Data under Article 4 of the Regulation

Article 4 of the Regulation requires Member States to report to Eurostat their total population for specific Union purposes on the basis of the strict concept of 'usual residence'. They may estimate this from the 'legally resident' or 'registered' population using scientifically-based, well-documented and publicly available estimation methods.

According to the national metadata files, most Member States estimate their total 'usually resident' population, because they are not in a position to measure it directly.

Some Member States reported to Eurostat that they estimate their 'usually resident' population by applying an overall adjustment to their national population, in order to capture:

- under-reported migration flows (i.e. people who did not register when arriving in the Member State or did not de-register when leaving); and/or
- under-reported vital events (i.e. events that occur abroad, but are not reported or reported with some delay).

Other Member States have to adjust their national concept of 'duration of stay'²² in order to be able to estimate the 'usually resident' population on the basis of a 12-month duration of stay criterion.

Eurostat has observed no inadequacies in the methodology used for the metadata files and documentation transmitted by the Member States, and no quality issues in the results.

4.3. Cost and burden

Article 7 of the Regulation is aimed at reducing the response burden on the parties responsible for providing statistical data; it allows Member States to:

- choose data sources in accordance with national law and practice; and
- use appropriate statistical estimation methods, provided that these are scientifically-based and well-documented.

The vast majority of Member States declare in the metadata information that they use administrative data sources to produce demographic statistics, so there is no burden on respondents.

The burden on NSIs is limited to selecting the data required under the Regulation and producing the relevant tables. This burden is considered to be the minimum possible. However, for NSIs that do not use 'usual residence' for their national statistics, the burden of producing the population figure (as required under Article 4) for the first reference year could be considered greater, as they have had to produce a special methodology and apply an estimation method from 2014 onwards.

5. FEASIBILITY STUDIES

Article 8 of the Regulation requires Member States to carry out feasibility studies on the use of the definition of 'usual residence' for population and vital events. The studies involve analysing current and potential data sources, data processing and the possibility of estimating the necessary statistics. Primarily, they aim to assess the scope for improving the comparability of concepts and definitions, and consequently result in better data quality and comparability.

EU/EEA countries²³ carried out feasibility studies on the use of the definition of 'usual residence' for all breakdowns of population and vital events required under the Regulation, in order to assess whether it would be possible to converge on the same 'population' concept for all Member States and all data. Financial support was provided in the form of grants. All the countries submitted reports on the results of the studies to Eurostat by the deadline in the Regulation (31 December 2016). The reports show that the application of the definition would be problematic for some Member States, particularly those using administrative data sources to provide Eurostat with data for demographic statistics and population censuses (which are the basis of demographic statistics in several Member States).

This problem may become more widespread as the number of Member States using administrative data increases. For instance, the ongoing work to prepare the 2021 round of population and housing censuses shows that 13 of the 31 EU/EEA countries providing data

²² See section 3.5.

²³ Regulation (EU) No 1260/2013 is not yet included in the Agreement between the European Community and the Swiss Confederation on cooperation in the field of statistics.

under the Regulation are planning a primarily register-based census, 8 a traditional census and 10 a combined census generally based on a population register. After the 2021 census round, the balance may tilt even more towards registers, as some Member States that still conduct a traditional census are looking for feasible alternative approaches based on administrative data.

To summarise:

- some Member States estimate their population stocks annually, using demographic components (live births, deaths, immigration and emigration) applied to Census 2011 figures;
- others estimate population on the basis of statistical population registers; and
- several use, or will be using, multiple (usually administrative) data sources to measure 'usual residence', particularly in the context of population censuses evolution.

The main issues and difficulties mentioned in Member States' reports as regards the feasibility of the 'usual residence' concept may be grouped as follows:

- different concepts of 'duration of stay' are used: 3 months, 6 months, 9 months, 12 months or not time-limited. Normally, Member States are able to approximate 12-month stays, but mainly with an overall adjustment at aggregated level (i.e. for data required under Article 4 of the Regulation). However, they are not in a position to approximate 12-month stays at the detailed levels required under Article 3;
- while de-registration and registration of a new place of residence is often compulsory, in several Member States this is not done or done only with some delay;
- Member States are usually able to count only people whose stay is legal or legalised. As a consequence, people staying irregularly cannot be counted, even if they could be considered part of the usually resident population;
- Member States using a population register and/or administrative data may have difficulties in determining 'intention of stay', as required for the 'usual residence' definition, in particular for some specific population groups (e.g. asylum seekers);
- when population components from the (usual residence) census base are used, an assessment should be made as to whether vital events are consistent with the 'usual residence' concept, i.e. whether the vital events data are also collected under this concept. However, this assessment is not always made; and
- some 'special groups' of the 'usually resident' population²⁴ cannot be identified or it is not possible to assess whether or not they are included, e.g. people living regularly at more than one residence during the year or people who may be irregular or undocumented migrants.

Finally, to sum up the Member States' conclusions:

• some Member States indicate that they already provide 'usual residence', mainly because their population is estimated annually from the (usual residence)

²⁴ There are certain population groups for which some uncertainty may arise as to their inclusion in the 'usually resident' population of a Member State and which are subject to special treatment. For more details, see Chapter V (Population bases) in:

<u>http://www.unece.org/fileadmin/DAM/stats/publications/2015/ECECES41_EN.pdf</u> (available only in English).

Census 2011 count using population components (live births, deaths, immigration and emigration). Discussions will continue with the countries concerned;

- some assess that their 'national population' (mainly registered population) is very close to 'usually resident population', particularly at total level, and therefore there is no need to change it, as the quality is sufficient and any adjustments would incur additional costs. However, at a more disaggregated level (i.e. at the levels required by Regulation (EU) No 205/2014), differences may become greater and the potential impact on more detailed demographic statistics should be examined; and
- in some Member States, 'usual residence' can be gauged using various estimation methods, e.g., using 'signals' from various administrative data to evaluate whether people are living in the Member State). These methods, however, require further refinements as today they do not work for all required breakdowns, e.g. some countries cannot determine the region of residence.

6. FURTHER IMPROVEMENT OF EUROPEAN POPULATION STATISTICS

This report has demonstrated that the Regulation has significantly improved European statistics on demography in terms of data availability, completeness, punctuality (of data provision by the NSIs) and timeliness (of Eurostat's data production and dissemination). The data quality has benefited from the merging of the collection of the data with that of the data received under Article 3 of Regulation (EC) No 862/2007 and related implementing measures, and the Census 2011 round. Quality should continue to be improved in the future, in particular by tackling under- and over-coverage.

Official European and national bodies, non-governmental bodies and the general public are making greater use of the statistics governed by the Regulation. The data should reflect evolving user needs (e.g. as regards the influx of people seeking refuge in Europe) in the light of demographic changes, while taking into account the burden on data providers.

Ways of improving the situation further will be considered in the context of preparations for the post-2021 EU population census.

7. CONCLUSIONS

Thanks to joint efforts involving EU/EEA countries, the implementation of the Regulation has increased and improved the output of high-quality European statistics on demography.

The production of European demographic statistics under the Regulation can be considered to be up and running, and providing various stakeholders and local, regional, national and international administrations with relevant data. However, demographic behaviour and the structure of the population are in constant flux and, as new data sources and methods become available, close monitoring of current data production and output under the Regulation and parallel developments as regards future needs will remain an important challenge in the coming years.