

# National Population and Housing Census 2021

Research methodology and organization





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Statistics Poland Warsaw 2022



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Statistics Poland

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Dominik Rozkrut Janusz Dygaszewicz Dorota Szałtys

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#### **Typesetting and graphics**

Katarzyna Stanecka

ISBN 978-83-66466-89-0

Publication available at stat.gov.pl

When publishing Statistics Poland data – please indicate the source



00-925 WARSZAWA, AL. NIEPODLEGŁOŚCI 208 Information on sales of publications – tel.: (22) 608 32 10, 608 38 10

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# **Preface**

The National Population and Housing Census takes place every 10 years and is the most important statistical survey to update the status and size of the population, buildings and dwellings. In 2021, it was conducted under particularly difficult conditions related to an outbreak of epidemic caused by the SARS-CoV2 virus.

Despite a number of concerns, organizational and technical solutions have been successfully implemented, which not only allowed the health risk to respondents and census enumerators to be reduced to a minimum, but also, due to their novelty, have contributed to analyses and discussions on introducing these solutions permanently into the implementation of other statistical surveys.

This methodological and organizational report was created to bring together in one place descriptions of the most crucial aspects concerning the implementation of the modern Population and Housing Census 2021.

I do hope that this study will bring you closer to the complexity of the process of preparing and carrying out a census, that it will make you aware of the scale of the difficulties of the undertaking, but, above all, that it will make it possible to prepare the society and statistics even better for the next round of Population and Housing Censuses in 2031.

President

Statistics Poland

Dominik Rozkrut, PhD

# Introduction

From April 1 to September 30, 2021, the National Population and Housing Census was conducted on the territory of the Republic of Poland, the ninth one in independent Poland (not counting the census of 1946 and three microcensuses in 1974, 1984 and 1995) and the second one since our country joined the structures of the European Union.

Censuses are important moments in the life of a nation when the state asks its residents 'how many of us are there', 'what we are', 'how we live' and other most relevant information related to the functioning of society.

It is a comprehensive portrait of a country showing the demographic, social and economic structure of its population at a particular time.

It should be remembered, however, that the goals of the census are changing with the ever-evolving society and the conditions under which it operates. Nowadays, in the era of progressing globalization and rapid economic development, having detailed, good quality and comparable statistical data is essential for proper socio-economic management both at the national and international level.

The population census is the only such mass survey that allows to obtain detailed information on the size of the population, its territorial distribution, its demographic, social, and economic structure, as well as on households and families. Censuses of population are usually accompanied by censuses of dwellings and buildings, providing information not only on the quantitative and qualitative state of the housing stocks, but also allowing a comprehensive characterization of the housing situation of population and households, including the number of households and families without their own dwelling or living in a dependent household.

Internationally, especially for the European Union area, having a database of census data is essential because of the ongoing use of this information for the implementation of various programmes expressed in European strategies and policies.

The success of a modern census depends to a large extent on whether the key elements have been taken into account in organizing and conducting the study.

First, the information scope of the census form should be adapted to the changing demographic and socioeconomic characteristics of the country's population and its regions. The difficulty lies in finding the right balance between making changes to the form and maintaining historical continuity so that an analysis of the phenomenon can be made over time.

The second factor relates to the development of technologies used in the collection, processing and dissemination of statistical information. The use of modern technologies meets the growing demands of data users, who expect more detailed information, both on specific characteristics and territorial dimensions, in forms corresponding to the latest IT solutions.

Censuses are the largest logistical operations (involving the data collection process through direct collection of data from respondents or obtaining data from administrative registers, compilation of results, their analysis, and dissemination of data) and the most expensive, especially when conducted in the traditional manner. And it is precisely because of the high cost of this endeavour that a number of countries are taking strong steps toward using new methods that would make the Population and Housing Census more efficient and less costly, assuming that the results obtained are of adequate quality.

In the 2021 Population and Housing Census, Poland has continued, started for the first time in the 2011 Census, to move away from the traditional method to a new generation census that diversifies data sources, i.e. on the one hand, by using the potential of administrative sources (data from official registers and non-public information systems), and on the other hand, by collecting data obtained from persons participating in an online self-enumeration, telephone interview, face-to-face interview conducted by a census enumerator with the use of portable electronic devices (CAXI method).

The 2021 Census was conducted under particularly difficult conditions. As a result of the outbreak of an pandemic, caused by the SARS-CoV-2 virus and the associated restrictions, there was a need to amend the Census Act 2021. The amendments to the Act on the National Population and Housing Census 2021 included, among others, extending the duration of the census by three months (until September 30, 2021, and not – as originally planned – until June 30, 2021), as well as increasing the efficiency of the use of census methods, i.e. ways of collecting data from individuals covered by the census, in particular in cases, if certain methods were not possible, i.e. because of the COVID-19 threat.

The report consists of ten chapters. The first chapter addresses issues related to the legal aspects governing the implementation of the national population and housing census. In addition, the chapter presents issues concerning the method of implementing the census.

The second chapter focuses on presenting the preparatory works for the 2021 Census, which included carrying out public consultations and implementing two trial censuses. Public consultation is an activity which, by involving the society in the decision-making process related with the possibility of determining the information needs of the census, contributes to a broader and more informed understanding of the undertaken census activities and, in turn, to the expression of support for the entire project. This is because the overarching goal is to increase the level of involvement of different social groups in the process of implementing the population and housing census, including, in particular, the participation of the country's inhabitants in the census survey. On the other hand, the main purpose of the trial censuses was to test the methodological, organisational, technical and popularisation solutions adopted before the actual census. The chapter also describes the information scope of the population and housing census, taking into account national as well as international obligations.

The third chapter presents more important census definitions and concepts – grouped according to the topics, i.e. population category, demographic and social characteristics, households and families, population migration, economic activity of the population (situation of persons in the labour market), and buildings and dwellings.

Chapter Four describes the data sources that were applied in the 2021, Census i.e. data from official records and non-public information systems and data collected using the CAXI method. The fifth chapter presents the construction of the lists, necessary for the implementation of the census, i.e. the address-dwelling list, the list of persons and the list of collective living quarters. The sixth chapter is devoted to a discussion of issues related to the management structure of the census apparatus, responsibilities and hierarchy in the management and decision-making process, the operation of the census hotline, and training of all groups of persons involved in census works.

The seventh chapter discusses selected IT systems and applications supporting the implementation of the population and housing census, among which the CORstat\_Census system should be pointed out, which is the central link of the IT environment for the implementation of the Census 2021, the Redmine ticketing system as a tool facilitating the clarification of problems and communication between different levels of the census apparatus, the Call Center system used, among others, to operate the Census Hotline and the so-called dashboard, which provided access to information on the progress of the census.

The eighth chapter deals with aspects related to data security in a broad sense, including protection of data collected and gathered by official statistics, presentation of modern ICT techniques ensuring, among others, advanced protection against cyber-attacks and serving the management of information and security incidents, and, finally, the principles of personal data processing.

Chapter nine deals with the development of census results. It presents the processes of processing 2021 Census data, i.e. the processes of obtaining and recording registration data, collecting and preparing source data, creating the census list and the so-called Domain Data Sets obtaining and processing data from the field survey (CAXI data), calculating the Resulting Census Data Set), and the processes of analysis and sharing. The chapter also describes the IT environment: Operational Microdata Repository and Analytical Microdata Repository, where the above described processes are implemented. In addition, the chapter discusses the main issues related to the implementation of the control survey.

The survey was conducted between November 12 and November 24, 2021. Also presented are the forms and tools that will be used to make the results of the 2021 Census available. The final tenth chapter is devoted to describing the main activities implemented as part of a multifaceted communication and promotion strategy for the 2021 Census.

The report also provides a timeline for releasing the results of the 2021 Census, and includes a list of questions included on the census form, a list of questions for collective living quarters, and for the control survey. Moreover, the typology of collective living quarters is presented.

# I. General information on the 2021 Census

# 1. Legal bases and international recommendations

Collecting statistics from individuals in surveys as broad in scale and scope as the Population and Housing Census requires a particular type of approach and regulation.

The laws governing the broad spectrum of issues related to the conduct of the 2021 National Population and Housing Census are:

- Regulation (EC) No 763/2008 of the European Parliament and of the Council of 9 July 2008 on population and housing censuses (Official Journal of the European Union, L 218, 13.8.2008, p. 14);
- Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (Official Journal of the European Union, L 119, 04.05.2016, p. 1) on the principles for processing personal data;
- 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 (Text with relevance for the EEA and for Switzerland) (OJ L 87, 31.3.2009, p. 164). L 87, 31.3.2009, p. 164), as regards the rules for the development, production and dissemination of statistics and statistical confidentiality;
- International Recommendations for the 2020 Population and Housing Censuses of the United Nations Economic Commission for Europe;

and

- Act of August 9, 2019 on the National Population and Housing Census 2021 (Journal of Laws of 2019, item 1775, of 2020, item 1486, of 2021, item 615, of 2021, item 1143), hereinafter: the Census 2021 Act;
- Act of June 29, 1995 on Official Statistics (Journal of Laws of 2021, item 955), hereinafter: the Act on Official Statistics.

# 2. Implementation date and reference periods

In accordance with the provisions of the Census Act 2021, the Population and Housing Census was implemented from April 1 to September 30, 2021, as of March 31, 2021, 24:00 hours.

In the Current Activity section, the reference period was additionally the week ending on the survey reference date (i.e. the period from March 25 to March 31, 2021).

# 3. Scope

The 2021 Census was conducted as a complete survey and included:

- individuals who permanently reside and temporarily reside in dwellings, buildings, and other and premises other than a dwelling;
- b) natural persons not having residence:
- c) dwellings, buildings, collective living quarters and premises other than a dwelling.

The census did not include:

- heads and foreign staff of diplomatic representations and consular offices of foreign countries, their family members and other persons enjoying privileges and immunities under the laws, international agreements or generally recognized international customs;
- b) apartments, buildings, facilities and premises owned by diplomatic representations and consular offices of foreign countries.

### 4. Duty to respond

According to the provisions of the Act on the National Population and Housing Census 2021, participation in the census was mandatory, and Polish residents were required to provide accurate, comprehensive, and truthful answers (Article 28 p.1 of the Law on the Census). To answer about minors and absent persons, adults living together with them were obliged.

Data on the residents of collective living quarters, i.e. buildings occupied by a single establishment providing the following services: care and education, care and treatment, work-related or study (student dormitories, dormitories, staff hotels), or other facilities where usually a larger number of persons reside or stay were obtained – within the scope of the available documentation – from the owners, administrators or managers of the facilities using the application either online, or in addition, directly from residents through an online self-enumeration or telephone interview.

Information on buildings managed by legal persons and organizational units without legal personality and unoccupied dwellings was provided by managers and administrators of housing resources. However, information on buildings owned by natural persons was provided by their owners, users or administrators.

Providing answers that are not in accordance with the facts and refusing to answer entailed legal consequences provided for in the provisions of Articles 56 and 57 of the Act on Official Statistics.

# 5. Main objectives

In light of the dynamic changes occurring in socio-economic life, access to objective information, which is then the basis for making strategic decisions, becomes crucial. Population statistics and general family, social, economic, and housing characteristics of individuals are essential for studying and defining social, environmental, and regional policies in individual countries as well as larger communities/communities, including the European Union and the United Nations. Statistical data are both a starting point for the planning and implementation of short- and long-term policies, enable their ongoing monitoring, but also make it possible to assess the scale of events and phenomena occurring ad-hoc, requiring immediate decisions.

Having up-to-date, good quality and comparable data makes it possible to capture the processes taking place, to determine their trends and thus to react adequately. The value of the information collected for scientific and historical research is also not insignificant.

In view of the above, the most important assumed objectives of the population and housing census are:

- 1. to meet the information needs of the country, especially to collect information that cannot be obtained from other sources, especially from administrative sources;
- 2. to provide information at the level of units of the country's basic administrative division;
- to present changes in the number of population and housing resources in comparison with the results of the previous census (Census 2011), together with a broad characterization of both the individual populations and the course of the basic processes, including: the status and demographic, social and economic structure

of the population, households and families living or staying in Poland, the size and directions of population mobility, economic activity, as well as the size of housing resources, their quality and effective use;

- 4. to collect information necessary for fulfilling Poland's international obligations towards the European Union and the United Nations;
- 5. to provide statistical data for the needs of creating and updating the survey data, both for determining the condition and structure of the population by demographic, social and economic characteristics and for drawing samples for sample surveys conducted in the post-census years in households.

#### 6. Census realization method

The act on the Population and Housing Census 2021 assumes that the 2021 Census will be conducted using a mixed method, i.e. using data coming from administrative sources and data collected from respondents.

It should be emphasized that the decision to use the mixed method in carrying out the 2021 Census is in line with the all-European trend of using the information resources of existing administrative records in the censuses. While preparing the legal basis for conducting censuses in the EU area, the European Commission took into account the dynamic development of administrative systems and IT solutions used in the selection of the census method. Regulation No. 763/2008 of the European Parliament and of the Council of 9 July 2008 on population and housing censuses specifies in detail the sources on which the Member States may base the statistical data, and in particular these are:

- a) traditional censuses;
- b) censuses based on data from administrative registers;
- c) combinations of traditional censuses with sample surveys;
- d) combinations of censuses based on data from administrative registers with sample surveys;
- e) combinations of censuses based on data from administrative registers with traditional censuses;
- f) combinations of censuses based on data from administrative registers with sample surveys and traditional censuses,

and

g) surveys based on rotating samples ('rolling' censuses).

Regulation No. 763/2008 is the first legal act – on an international scale – that treats various census methods equally. In other words, there is a 'legal' recognition that the above mentioned methods of obtaining data for the purpose of a population and housing census are allowed and will allow to meet the information needs within the scope of the census.

In the Act on Census 2021, the assumption was made to use the information systems of public administration as widely as possible as sources of data for the census, which consequently meant that the information collected in the census was taken primarily from available administrative sources and then used to prepare and update the population-address-residence list and as a direct source of census data.

Data covered by the 2021 Census information scope were collected from the entire population to be surveyed post-through an electronic census form and using the following methods:

- CAWI online self-enumeration;
- Census on Demand telephone interview conducted on a census hotline;
- CATI telephone interview conducted by census enumerators;
- CAPI face-to-face interview conducted by census enumerators.

The application of the above methods of data collection through electronic channels resulted once again in the abandonment of the use of paper forms in the census (for the first time Poland was one of the first countries in the world to conduct a paperless census in 2011).

The data collection channels operated on the following dates:

- online self-enumeration (CAWI) from April 1 to September 30, 2021;
- telephone interview (CATI) from May 4 to September 30, 2021;
- 'Census on Demand' telephone interview at the request of the respondent from April 1 to September 30, 2021;
- Face-to-face interview (CAPI) from June 21 to September 30, 2021. By the decision of the General Census
  Commissioner, census takers were allowed to conduct face-to-face interviews while observing the sanitary
  regime and the rules of conducting the census by direct interview method resulting from pandemic restrictions.

# II. Preparatory work and information scope

#### 1. Public consultation before the 2021 Census

The proposed thematic scope was consulted with key data recipients who use statistical data to perform their statutory tasks (in particular, with public administration units and scientific and research centres). Public consultations are an activity that, by involving the public in the decision-making process that involves defining the information needs of the census, contributes to a broader and more conscious understanding of the census activities undertaken and, as a consequence, to the expression of support for the entire undertaking. The overarching goal is to increase the level of involvement of particular social groups in the process of implementing the population and housing census, including in particular participation in the census survey by providing information required by the census.

The public consultation for the 2021 Census was carried out using an open questionnaire that was made available to users on November 17, 2016 on the website of Statistics Poland and Statistical Offices and was available until January 21, 2017. The consultation was supported by a promotional campaign aimed at spreading information about the ongoing consultation giving users the opportunity to express their own opinion on the census data produced by official statistics and their usefulness.

For each of the areas mentioned in the survey, key features were identified that specified the scope of information. For each characteristic, participants in the consultation were given the opportunity to indicate the desired level of territorial disaggregation along with how the data would be used and to specify the purposes for which the census result information would be used. Respondents indicated whether the topics included in a given area satisfied their information needs and identified the scope of information that should be included in a given topic area.

Additionally, consultation participants were able to specify their own information needs in terms of data presentation in selected cross-sections along with an indication of the territorial level. They also indicated their preferred method of participation in the upcoming census for the following options:

- self-completion of the questionnaire on the Internet,
- face-to-face interview with a census enumerator,
- other form.

The analysis of the results of public consultations has shown that the respondents, both institutional and individual, generally did not report any additional needs with respect to the proposed scope of information. On the other hand, they stressed the need to ensure availability of data at the local level (both at the level of gminas and for selected topics – enumeration districts, statistical wards, urban units) which would enable more precise characteristics of a given phenomenon. Moreover, the vast majority of users did not see any alternative source for obtaining data on particular topics than the census.

#### 2. Trial censuses before the 2021 Census

In order to test the adopted methodological, organisational, technical and popularisation solutions before the actual census, two trial censuses have been planned. Implementation of the trial censuses is regulated by Chapter 3 of the Act on the National Census 2021.

<sup>1</sup> A detailed report of the consultation can be found on Statistics Poland website at: https://stat.gov.pl/spisy-powszechne/nsp-2021/.

The gminas were selected by an expert method, taking into account a number of indicators characterizing the gminas in Poland:

- indicators developed for each gmina by name:
  - TERYT identifier: nature of gmina: rural (village), urban (town), rural-urban;
  - · Population size at the end of the year;
  - Population density;
  - Pre-working age;
  - Mobile working age;
  - Immobile working age;
  - Post-working age;
  - Internal migration inflow per 1,000 persons;
  - Internal migration outflow per 1000 persons;
  - Internal migration balance per 1000 persons;
  - International migration immigration per 1000 persons;
  - International migration emigration per 1000 persons;
  - International migration balance per 1000 persons;
  - General balance of permanent migration per 1000 persons;
  - Registered for temporary residence per 1000 persons;
  - Temporarily absent from permanent residence per 1000 persons;
  - Balance of temporarily present (absent) population per 1000 persons;
  - Persons arriving from abroad registered for temporary residence per 1000 persons;
  - Population temporarily absent due to emigration per 1000 persons;
  - Unemployment rate;
  - Number of employers' declarations of intention to employ a foreigner;
  - Number of permits issued to foreigners to work in Poland;
  - Percentage of dwellings with undetermined or no information regarding ownership, provision of central heating, sewage system;
  - Designation of a gmina with a share of national and ethnic minorities of at least 10%;
  - Access to public transport (only for finally selected gminas);
- indicators available only at the voivodship level:
  - Percentage of households with Internet access at home;
  - Estimation of emigration for temporary residence of 1 year and more per 1000 population.

Analysis of the indicators available at the level of the selected gminas allowed for the formulation of additional substantive considerations that were taken into account in the final selection of gminas, including:

- 1. checking the completeness of the persons and address dwelling list for a given unit, including verification of the scope of subjects, in particular with regard to:
  - number of immigrants registered for temporary residence in the context of issued work permits and employer's declaration of entrusting work to foreigners;
  - the number of emigrants for temporary stay exceeding 3 months in the context of registered facts of departure abroad:
  - number of internal migrants for temporary stay over 3 months in the context of registered movements;
- 2. number of immigrants registered for temporary residence in the context of issued work permits and employer's declaration of entrusting work to foreigners;

- 3. the number of emigrants for temporary stay exceeding 3 months in the context of registered facts of departure abroad;
- 4. number of internal migrants for temporary stay over 3 months in the context of registered movements.

The first trial census took place in two gminas in Poland, the rural gmina of Sierakowice in Kartuski Powiat, Pomorskie Voivodship, and the rural gmina of Czerwińsk nad Wisłą in Płońsk Powiat, Mazowieckie Voivodship. The trial census was conducted from October 1 to 31, 2019, as of September 30, 2019, 24:00.

The second trial census was conducted between April 1, 2020 and April 30, 2020 as of March 31, 2020, 24:00 hours, in the following sixteen gminas:

- 1. Kłodzko rural gmina, Kłodzko Powiat, Dolnośląskie Voivodship;
- 2. Chełmno rural gmina, Chełmno Powiat, Kujawsko-Pomorskie Voivodship;
- 3. Skierbieszów rural gmina, Zamojski Powiat, Lublin Voivodship;
- 4. Gubin urban gmina, Krosno Powiat, Lubuskie Voivodship;
- 5. Kleszczów rural gmina, Bełchatów Powiat, Łódzkie Voivodship;
- 6. Jabłonka rural gmina, Nowy Targ Powiat, Małopolskie Voivodship;
- 7. Lesznowola rural gmina, Piaseczyński Powiat, Mazowieckie Voivodship;
- 8. Prószków urban-rural gmina, Opolski Powiat, Opolskie Voivodship;
- 9. Radymno urban gmina, Jarosław Powiat, Podkarpackie Voivodship;
- 10. Dubicze Cerkiewne rural gmina, Hajnów Powiat, Podlaskie Voivodship;
- 11. Puck rural gmina, Puck Powiat, Pomorskie Voivodship;
- 12. Wojkowice urban gmina, Będzin Powiat, Śląskie Voivodship;
- 13. Wachock urban-rural gmina, Starachowice Powiat, Świętokrzyskie Voivodship;
- 14. Lidzbark Warmiński rural gmina, Lidzbark Warmiński Powiat, Warmińsko-Mazurskie Voivodship;
- 15. Puszczykowo urban gmina, Poznań Powiat, Wielkopolskie Voivodship;
- 16. Kołbaskowo rural gmina, Police Powiat, Zachodniopomorskie Voivodship.

It should be emphasized that due to the COVID-19 pandemic, the cancellation of the second trial census was considered. However, taking into consideration the instability of the epidemic situation in the following months and a possibility of the pandemic recurrence during the execution of the agricultural census in September–November 2020, as well as the 2021 Census, it was decided to adjust the organizational solutions so that it would be possible to carry out such a complex task as a census also in the face of extraordinary events, at the same time testing the flexibility of the management system and its resistance to crisis events. As a result, it was decided to conduct a second census, taking necessary precautions and limiting data collection methods to those that do not endanger the health of respondents and census agents.

# 3. Information scope of the 2021 Census

The information scope of the census results from the national needs indicated in the Polish legal acts and strategies, from the demand of data users and from international obligations, including in particular the EC Regulation No 763/2008 on population and housing censuses and implementing regulations determining the scope of obligatory topics (including classifications and their imposed level of detail). However, it should be noted that the topics required by the EU regulations overlap to a significant extent with the needs of national users.

The list of legal acts on the basis of which Statistics Poland is obliged to compile data for national needs is presented below:

a) population data for gminas – based on the Act of November 13, 2003 on revenues of local government units (Journal of Laws of 2003 No. 203 item 1966, as amended):

- according to Article 2 of the Law, population data is the basis for subsidizing each gmina;
- according to Article 28, paragraph 6, data on the population are used to separate rural areas or towns
  with up to 5,000 inhabitants in order to determine the way of distributing the educational part of the
  general subsidy for local government units;
- b) data on the population in gmina— based on the Act of 20 February 2009 on the village foundation fund (Journal of Laws No. 52, item 420, as amended). According to Article 2 of the Act, population data is one of the elements used to calculate the amount of the village hall fund:
- c) data on the population of cities based on the Act of 19 November 2009 on gambling games (Journal of Laws No. 201, item 1540, as amended). Population data for cities are used to determine the number of casinos and bingo halls that can operate (Article 15 of the Act);
- d) data on the number of disabled persons by age groups at the level of powiats in accordance with the Regulation of the Council of Ministers of 13 May 2003 (Journal of Laws No. 88, item 808, as amended) on the algorithm for transferring funds from the State Fund for Rehabilitation of the Disabled to voivodship and powiat governments;
- e) data on the number of inhabitants of gmina belonging to a minority in accordance with Article 14. of the Act of 6 January 2005 on national and ethnic minorities and regional language (Journal of Laws No. 141 of January 31, 2005, as amended);
- f) data on the number of housing units used to evaluate the implementation of the National Housing Program (Resolution No. 115/2016 of the Council of Ministers of September 27, 2016) on the adoption of the National Housing Program; introduction of anti-smog resolutions adopted in order to prevent negative impacts on human health or the environment (as regulations, passed by voivodships assemblies in the form of legal acts (Art. 96 Law on Environmental Protection).

International requirements are defined by the following EC (framework and implementing) regulations:

- a) Regulation (EC) No 763/2008 of the European Parliament and of the Council of 9 July 2008 on population and housing censuses (OJ L 218, 13. 8. 2008, p. 14);
- b) commission Implementing Regulation (EU) 2017/543 of 22 March 2017 laying down rules for the application of Regulation (EC) No 763/2008 of the European Parliament and of the Council on population and housing censuses as regards the technical specifications of the topics and their breakdowns (OJ L 78, 23. 3. 2017, p. 13);
- c) Commission Regulation (EU) 2017/712 of 20 April 2017 establishing the reference year and the programme of statistical data and metadata for the population and housing censuses provided for by Regulation (EC) No 763/2008 of the European Parliament and of the Council (OJ L 105, 21. 4. 2017, p. 1);
- d) Commission Implementing Regulation (EU) 2017/881 of 23 May 2017 implementing No 763/2008 of the European Parliament and of the Council as regards population and housing censuses, as regards the modalities and structure of the quality reports and the technical format for data transmission, and amending Regulation (EU) No 1151/2010 (OJ L 135, 24. 5. 2017, p. 6);
- e) Commission Implementing Regulation (EU) 2018/1799 of 21 November 2018 establishing a temporary direct action in the field of statistics for the dissemination of selected topics of the 2021 Census of Population and Housing and coded on a kilometre grid (OJ L 296, 22. 11. 2018, p. 19).

As part of the preparatory works for the 2021 Census based on the national and international information needs arising from the above-mentioned legislation and the individual needs of data users, the following main topics under which data are collected in the 2021 Census have been defined:

- 1. Size and demographic characteristics of the population, including the population in collective living the homeless (roofless);
- 2. Education (educational level);
- 3. Economic activity of persons, including commuting;
- 4. Disability;

- 5. Internal and international migration, including country of birth and citizenship;
- 6. Nationality, language, and religion;
- 7. Households and families:
- 8. Condition and characteristics of housing stock (dwellings and buildings).

International needs are specified in EU Implementing Regulation 2017/543 and EU Regulation 2018/1799. The list of topics and their breakdowns are detailed below:

#### **Population:**

- 1. Place of residence, geographic area;
- 2. Location of place of work;
- 3. Locality;
- 4. Sex:
- 5. Age;
- 6. Marital status;
- 7. Current economic activity;
- 8. Occupation;
- 9. Industry;
- 10. Status in employment;
- 11. Educational attainment:
- 12. Country/place of birth;
- 13. Country of citizenship;
- 14. Ever resided abroad and year of arrival in the country (since 1980);
- 15. Ever resided abroad and year of arrival in the country (since 2010);
- 16. Period of residence in the present locality;
- 17. Place of usual residence one year prior to the census.

#### Families:

- 1. Family status;
- 2. Type of family nucleus;
- 3. Size of family nucleus (number of persons).

#### **Households:**

- 1. Household status;
- 2. Type of private household;
- 3. Size of private household (number of persons).

#### **Dwellings:**

- 1. Housing arrangements:
- 2. Tenure status of households:
- 3. Type of living quarters;
- 4. Occupancy status of conventional dwellings;
- 5. Type of ownership;
- 6. Number of occupants;
- 7. Useful floor area;
- 8. Number of rooms of housing units;
- 9. Density standard (floor area);

- 10. Density standard (number of rooms);
- 11. Water Supply System;
- 12. Toilet facilities;
- 13. Bathing facilities;
- 14. Type of heating;
- 15. Dwellings by type of building;
- 16. Dwellings by period of construction;
- 17. Location of living quarters;
- 18. Type of inhabited premise.

The topics for which there was a national demand are presented below.

#### **Population:**

- 1. Remaining in an informal relationship;
- 2. Main source of maintenance;
- 3. Social Security beneficiaries;
- 4. Temporary emigration (persons who are temporarily abroad);
- 5. Nationality or ethnic identity;
- 6. Language used at home;
- 7. Religious affiliation;
- 8. Legal disability;
- 9. Subjective disability.

#### **Buildings and dwellings:**

- 1. Ownership of dwelling;
- 2. Useful floor area of a dwelling; number of rooms;
- 3. Ownership of building;
- 4. Equipping buildings with technical facilities (water supply system, sewage system, gas supply, central heating);
- 5. Gas from the network;
- 6. Type of building;
- 7. Year of building's completion;
- 8. Type of fuel used to heat the dwelling.

# III. Important census concepts and definitions

The definitions and classifications presented below apply to information disseminated for national purposes. However, it should be noted that the definitions of the selected concepts are in line with the definitions set out in the Framework Regulation (EC) No 763/2008 of the European Parliament and of the Council of 9 July 2008 on population and housing censuses and the Commission Implementing Regulation (EU) 2017/543 of 22 March 2017 laying down rules for the application of Regulation (EC) No 763/2008 of the European Parliament and of the Council on population and housing censuses as regards the technical specifications of the topics and of their breakdowns, ensuring comparability of data for EU member states and compliance with international recommendations elaborated for UNECE countries.

# 1. Population category

**Population category by national definition**. This category includes permanent residents of Poland, including persons who are temporarily abroad (regardless of the period of their stay), but have maintained permanent residence in Poland; immigrants temporarily staying in Poland are not included.

# 2. Demographic and social characteristics

**The age** of individuals is determined by the number of years completed as determined by comparing the full date of birth to the date of the census (known as the critical moment, March 31, 2021).

**Marital status** – due to national laws that set a lower age limit for marriage, censuses assume that marital status is defined for persons age 15 and older.

Under Polish law, there are four categories of marital status:

- single persons who have never been legally married;
- married persons whose marriage was contracted in accordance with secular law;
- widowed persons whose legal marriage has ceased to exist because of the death of a spouse;
- divorced persons whose marriage has been dissolved by a court decision.

Persons whose marriage has been legally separated by the court - continue to be married.

**Informal relationship** means the maintenance of mental, physical, and/or economic ties of a marital nature (without marriage) between two persons. The question about an informal relationship was voluntary and asked of persons aged 18 and older.

**Education** this is the highest educational level achieved in a school-based system, or in any other training mode or form, recognised in compliance with the binding education system. The basis for classifying education to a given level is provided by a certificate (diploma) of completion of a certain school, irrespective of the mode of studying (e.g full-time, evening/weekend, part-time, by correspondence) in the country or abroad. Information on the educational level was obtained for all persons aged 13 years or more.

Educational attainment is determined by the ISCED 2011 classification:

- a) tertiary education with an academic degree of at least doctorate (Ph. D.) shall be marked by persons with a doctoral or postdoctoral degree or with a title of professor;
- b) tertiary education with a master's degree, master's degree in engineering or equivalent degree obtained after graduation from a second degree studies or long-cycle master's degree programmes. This category also includes individuals who hold a medical degree;

- c) tertiary education with a bachelor's (licentiate), engineer's or equivalent degree marked by persons with a bachelor's, engineer's or equivalent degree obtained after graduation from Bachelor's, engineer's or equivalent studies);
- d) college graduation diploma applies to graduates of teacher training colleges and teacher training colleges of foreign languages (except for those organised within a higher education institution) and graduates of social services colleges;
- e) post-secondary education applies to persons who have a certificate (diploma) of completion of a post-secondary school, admission to which was conditional upon possession of a secondary school leaving certificate. This category also includes those who have completed teacher training;
- f) general secondary education shall be marked by persons who received a certificate of graduation from a general secondary school, profiled (specialised) secondary school, supplementary secondary school or who graduated from a lower secondary school (gimnazjum) before 1932;
- g) vocational secondary education persons who have obtained a certificate of completion of a vocational secondary school (technical school, supplementary technical school, vocational secondary school, technical secondary school art school of the second degree providing at the same time a secondary school curriculum):
- h) basic vocational/stage I sectoral vocational education held a person who obtained a certificate of completion of: vocational school (basic vocational or agricultural school, industrial school), vocational or agricultural school, agricultural correspondence course at the level of basic vocational school only, school of masters, sectoral vocational school of the first degree;
- i) lower secondary (gimnazjum) held by persons who have obtained a certificate of completion of lower secondary school or a certificate of completion of a special preparatory school. For those who graduated from lower secondary school (gimnazjum) before 1932, indicate general secondary education;
- primary held by persons who have received a certificate of completion of: a primary school (before the war a common school) regardless of how many grades it had (eight, seven, six or formerly four), courses for workers in the scope of a primary school and a primary art school realising at the same time the curriculum of a primary school;
- k) incomplete primary or no school education refers to persons who are attending primary school, attended primary school but did not complete it, who have never attended school.

**Country of birth** – in accordance with international recommendations, the country of birth had to be specified by referring to the state borders valid at the moment of Census, and not on the day of birth, e.g. if a person was born in Vilnius, the country of birth should be Lithuania, regardless of the year of birth. Such a solution was applied with a view to ensuring comparability, and especially to avoiding data duplication on the international scale.

**Citizenship** is defined as a particular connection (legal bond) between a person and the State. It does not show the ethnic origin and is not depended on nationality. For those who did not have citizenship of any country, there was an option to answer: do not have citizenship of any country. If the census respondent had citizenship of several countries, a hierarchy of indications was used: Poland, EU countries, third countries.

**Foreigner** is a person who does not have Polish citizenship, regardless of the fact of holding or not holding citizenship(s) of other countries.

Stateless person is a person with no citizenship (stateless persons are considered foreigners).

Nationality or ethnic identity is a declarative, based on subjective impression, individual feature of each person, expressing his or her emotional or cultural relationship or the one following from his/her parents' origin, to a specific nation or ethnic community. Nationality (a sense of national-ethnic affiliation) should not be confused with a legal bond to a state –i.e. citizenship. The 2021 Population and Housing Census allows Polish residents to express complex national and ethnic identities by asking the respondents two questions about national and ethnic affiliation.

**Language used at home** concerns the language used on a daily basis at home and refers to spoken or sign language that is used in family interactions.

**Religious denomination** (religious affiliation) is a person's formal participation in or emotional connection with a particular religious denomination (church or religious association); religion is determined by voluntary declaration, including the declaration of the lack of relation with any religion (no religious affiliation). The question about denomination does not refer to religious belief (or disbelief) per se or to its intensity, but to perceived or formal belonging (or non-belonging) to a religion.

**Disabled persons (persons with disabilities)** are persons who have an appropriate certificate issued by an authorized body or persons who do not have such a certificate, but their physical, mental or intellectual condition permanently or periodically hinders, restricts or prevents them from performing daily activities, learning, working and playing their social roles.

Everyday (basic) activities for a given age should be understood as:

- for infants a correct response to external stimuli (crying, smiling, appropriate gestures and reactions);
- for pre-school children the ability to participate in games and play in a group of peers;
- for school-age children school attendance and participation in all types of compulsory activities;
- for persons at working age working, studying or household activities;
- for elderly persons basic self-care in hygiene, shopping, meal preparation, etc.

Information on persons with disabilities, in accordance with the provisions of the Census Act, was obtained on a voluntary basis.

#### 3. Households and families

In population and housing censuses, Member States use the 'housekeeping concept' or, when this is not possible, the 'household-dwelling' concept to identify private households. The Census 2021 adopts the household-dwelling concept, whereby all persons living in a housing unit are considered to be members of the same household. Among persons living together, families are distinguished. The basic information to identify family nucleus is to determine the degree of kinship to a particular person and to identify for each person his or her spouse and parents (if such persons are living together?).

In the Census 2021, the family relations of persons were established by indicating the father, mother and spouse/partner from among the persons living together in the dwelling.

In official statistics, a **family nucleus** is defined as two or more persons who are related as husband and wife, cohabiting partners (cohabitants) – persons of the opposite sex, or as parent and child. This is the definition used in the population and housing censuses, among others. The cited definition best reflects the factual picture of various forms of family life in the modern world, with the observance of the law in force in Poland, including both traditionally understood families and their alternative forms.

According to the above definition, the following types of family nuclei are distinguished:

- married couple without children;
- married couple with children;
- informal relationship without children;
- informal relationship with children;
- lone mother with children:
- lone father with children.

A complete family is both parents with a child/children (natural or adopted), while a single-parent family is one parent with a child/children, i.e. a lone mother with children or a lone father with children.

A reconstituted family is a family consisting of a married couple or a consensual union couple with one or more children, at least one of whom is not the joint child of the spouses (partners), i.e. is the natural or adopted child of only one of them.

A child is defined as a person of any age who remains in the household with both or one parent. Children also include stepchildren and adopted children.

# 4. Migration of population

**Migration is** a movement of person associated with a change of place of residence. Assuming the location of previous and current place of residence was identified:

- internal migration, which is the movement of persons within a country;
- international migration, which is the movement associated with a change of country of residence.

**International migration** is the departure from a country of permanent residence (emigration) or arrival in a country (immigration) for permanent or temporary residence.

Taking the length of stay (absence) as an observation criterion, the following migration categories were distinguished:

- short-term temporary stay lasting from 3 to 12 months;
- long-term temporary stay of at least 12 months;
- for permanent residence regardless of the period of residence.

A migrant is a person who changes his or her place of residence.

**An emigrant** is a person who moves from a country abroad for permanent or temporary residence.

**An immigrant** is a person who has come from abroad to a country for permanent or temporary residence.

Changes of place of residence between localities were considered **internal migration** in the 2021 Census.

Within internal migration, the following types of migration may be distinguished:

- intervoivodship, i.e. population movements from one voivodship to another;
- intravoivodship, i.e. changes of place of residence within the same voivodship;
- interpowiat, i.e, the movement of population from one powiat to another;
- intrapowiat, i.e. changes of place of residence within the same powiat.

Classifying internal migration according to the administrative nature of the areas between which migration took place, the following directions of migration were distinguished:

- from rural to urban areas;
- from urban to rural areas;
- from one urban area to another, between other urban areas;
- from one rural area to another.

**Temporary internal migration** is migration associated with temporary residence outside the place of permanent residence lasting longer than 3 months.

# 5. Economic activity of the population (situation of persons on the labour market)

The census uses the definitions of population economic activity recommended by the United Nations Economic Commission for Europe and the Statistical Office of the European Union (Eurostat), based on the recommendations of the International Labour Organization. According to these recommendations, the subject of the survey of persons was the fact of having/having a job during the surveyed week (in Poland it was the week from 25 to 31 March 2021) or searching for a job and readiness to take it. The study included individuals aged 15 years and older. The rule was adopted to classify each person into only one of three categories: employed, unemployed or economically inactive (actual, not formal-legal occupational situation of the surveyed persons).

The economically active population includes all persons considered employed or unemployed as defined below.

The employed included all persons aged 15 years and over who, during the survey week:

- performed work for at least 1 hour that resulted in earnings or income;
- did not perform work, but formally had work, and the temporary reason for not performing work was, for example, their own illness, vacation or child care leave.

**The unemployed** are those aged 15–74 who have met three conditions simultaneously:

- were not working individuals during the study week;
- actively sought work, i.e. took concrete steps to find a job, between March 1 and March 31;
- were able/willing to work during the survey week and the following week.

The unemployed also included those who had found a job and were waiting for a job to start within 3 months and were willing to take that job.

**The economically inactive population** is defined as persons aged 15 and over who are not classified as employed or unemployed, i.e. persons who in the week under study:

- were not working, did not have a job and were not looking for one;
- were not working, were looking for work, but were not able/ready to work between April 1 and April 15;
- were not working and were not looking for work because they had a job and were waiting for a job for more than 3 months or up to 3 months but were not ready to start working.

#### The main causes of inactivity were identified as:

- pension/capital income (stocks, bonds or from property);
- continuing your education as an apprentice or student;
- child or adult care;
- your own health condition that does not allow you to work;
- exhausting all possibilities of finding a job;
- another reason.

**The main** job is the job that usually takes more time. If the jobs take the same amount of time, the main job is the one with the higher income.

**Employment status** includes the following categories of workers:

#### **Employed (salaried employees):**

- persons employed under an employment relationship or a civil law contract; this group also includes apprentices and interns who were paid for their work;
- persons who work as contractors (also known as homeworkers);

persons employed on a family farm or in a family business outside agriculture and at the same time receiving
a fixed income or earnings (not necessarily in the form of money) for their work).

#### Self-employed:

- owners, co-owners or lessees of an individual agricultural holding who work on the holding;
- individuals who are self-employed outside of agriculture (registered or unregistered);
- agents in all agency systems;
- persons who, on the basis of an agreement with the employer, registered their own business as a one-person economic entity.

Self-employed include both **employers** (self-employed persons who employed at least 1 paid worker during the survey week) and **non-employed persons**.

**Helping family members** are individuals who, without contractual, predetermined compensation, assisted in the operation of the family farm or family business outside of agriculture.

**Occupation performed** in the main place of work – based on the Classification of Occupations and Specialities (introduced by the Regulation of the Minister of Labour and Social Policy of 7 August 2014 on the classification of occupations and specialities for the needs of the labour market and the scope of its application, consolidated text: Journal of Laws of 2018, item 227).

The type of business conducted by the company (institution, workplace) was related to the main or predominant activity at the actual place of principal employment; determined on the basis of the Polish Classification of Activities (PKD 2007), introduced by the Decree of the Council of Ministers of 24 December 2007 on the Polish Classification of Activities (Journal of Laws 251, item 1885, as amended).

**Location of the place of performance of the main job** is the actual place of performance of the job taking into account the division into work performed in Poland (details), outside Poland (name of the country) or no fixed location (when it is not possible to indicate a specific location geographically). This information, combined with residence data, is used to determine the scale and directions of commuting.

# 6. Buildings and dwellings

**Dwelling** – premises intended for a permanent stay of persons, structurally separated by permanent walls within a building, constituting a set of rooms or a single room, including auxiliary rooms (entrance hall, hall, bathroom, toilet, closet, pantry, locker, and other rooms located within the unit, serving the residential and economic needs of the residents), constructed or reconstructed for residential purposes, into which a separate access leads from a staircase, hallway, common hallway or directly from a street, courtyard or garden regardless of whether it is occupied under one or more legal titles.

**Occupied premises not being a dwelling** – a premise which at the time of the census – due to various reasons, e.g. random reasons, adopted lifestyle – was the only place of residence of persons (person) forming a household.

This category includes:

- premises located in a permanent building (residential or other) built for purposes other than residential use
  that have not been adapted for residential use, such as an attic, laundry room, dryer, garage, storage room,
  livestock or utility room (stable, barn, barn) or other (hotel room, school room);
- semi-permanent premises, constructed for inhabiting by families or individuals for a limited period of time usually several years, e.g. so-called containers or barracks constructed for persons affected by natural disasters (for flood victims, fire victims), temporary buildings inhabited until a new house is built;
- provisional premises, e.g. a cell, a hut;
- movable objects, e.g. barracks, railroad car, caravan, yacht, barge.

**Type of entity owning the dwelling** – the type of entity that held ownership of the dwelling. The legal status to the dwelling was determined at the so-called critical moment of the census.

In terms of the type of entities, dwellings were classified as owned:

- natural person(s) (also concerns co-ownership, e.g. marital co-ownership) concerns dwellings where the
  ownership right is held by a natural person (one or more). It also includes dwellings where the cooperative
  ownership right to a dwelling has been transformed into separate ownership, i.e. in addition to the ownership of the dwelling, the co-ownership of the common parts of the building and the land on which it was built
  has been obtained;
- housing cooperative (proprietary dwelling) concerns cooperative dwellings with cooperative ownership right to a residential premise;
- **housing cooperative (tenant dwelling)** concerns cooperative dwellings to which a cooperative tenant right is entitled:
- **gmina** refers to dwellings in the gmina's housing stock, transferred to the gmina, but owned by the State Treasury or the powiats (local self-government communities);
- State Treasury refers to dwellings remaining as part of resources of the National Agricultural Support Centre, taken over and remaining within the resources of the Military Property Agency, remaining under the management of entities subordinate to ministers, remaining under the management of the following bodies: state authority, state administration and state control, handed overby the unit representing the State Treasury for use, lease or rental to diplomatic representations and consular offices of foreign countries:
- **companies** concerns dwellings which are the property of state-owned enterprises and state organizational entities;
- **public building societies (TBS)** concerns dwellings (inhabited by lease), located in buildings owned by a legal entity, which in its name has the words 'public building society' or the abbreviation 'TBS', regardless of the fact of participation in the construction costs of the building by another entity;
- **other entities** concerns dwellings owned by entities other than listed above, e.g. religious associations, political parties, associations, foundations.

Legal title to occupy the dwelling by a household – refers to the legal title to the dwelling held at the time of the census by one or more persons comprising the household residing in the dwelling; Regarding the right to occupy a dwelling, households are classified into those residing by virtue of: ownership of a dwelling or house, cooperative right to a dwelling, lease, sublease (subtenants), relationship to the owner or the so-called main tenant of a dwelling, and other.

**Useful floor area of a dwelling** is the sum of the areas of all rooms within the dwelling, in particular: rooms, kitchens (with and without windows), pantries, hallways, bathrooms, lavatories, enclosed verandas or porches and other rooms serving the residential or economic needs of the inhabitants of dwelling, regardless of their purpose and way of usage.

A **room** or **kitchen** is considered to be a premise in a dwelling separated from other rooms by permanent walls extending from floor to ceiling, with direct daylight and an area of not less than 4 m<sup>2</sup>. Other rooms in the dwelling such as hallway, lobby, bathroom, lavatory, pantry, storage room, closet, enclosed veranda, porch, regardless of their area and method of lighting, are auxiliary rooms and are not considered rooms.

#### Method of heating the dwelling

The census distinguishes between three main types of heating:

- central heating;
- furnaces;
- other types of heating.

A dwelling equipped with central heating – a dwelling connected to an installation that supplies heat (hot water, steam or hot air) from a central source of its generation, i.e.:

- from the supply system if the heat is supplied from a combined heat and power plant, a central heating station or a local boiler house:
- from a source supplying one multi-dwelling building if the heat is supplied from a boiler house serving only
  one multi-dwelling building;
- individual where heat is generated in a single-family building (a central heating boiler installed in the building's own boiler room or in another room, or where electric floor heating is installed) or outside the building, e.g. solar collectors, photovoltaic panels, heat pumps, or where the heat source is located within a dwelling located in a multi-dwelling building (so-called single-storey heating system), e.g. the central heating furnace is installed in the kitchen or bathroom.

**Dwelling heated by furnace(s)** – a dwelling in which individual rooms are heated by tiled stoves or various portable stoves for solid fuels, e.g. coal, coke, briquettes, pellets, peas, as well as tile stoves with electric heaters built in.

**Dwelling heated in another way** – a dwelling is heated e.g. by so called economical gas stoves for gas from a network or cylinder, by electric blowers or by portable oil stoves of radiator type, connected to electricity.

**Predominant type of fuel or energy source used to heat the dwelling** – refers to the type of fuel/energy source used to heat the predominant area of the dwelling or used for a longer heating period. Fuels/energy sources used for supplementary heating (e.g. heating the dwelling with a fan heater or other portable heating) are not taken into account.

**Residential building** – a structure with at least half of its total floor area used for residential purposes. In cases where less than half of the total floor area is used for residential purposes, such building shall be classified as non-residential, according to its intended use.

Multi-dwelling building - a residential building with a minimum of three separate dwellings.

**Single-family building** – a detached residential building or a building in semi-detached, terraced or group housing, serving the purpose of satisfying residential needs, constituting a structurally independent unit, in which no more than two residential units or one residential unit and a commercial unit of a total area not exceeding 30% of the total area of the building are permitted.

**Non-residential building** – a building that is more than half occupied for non-residential purposes (e.g. occupied by a school, office, store, warehouse, medical clinic) and that also contains at least one dwelling.

**Collective living building** – a building belonging to a collective living quarter (e.g. dormitory or early childhood home) that contains at least one dwelling.

The owner of a building is a natural person or a legal person or an organizational unit without legal personality, who has a title to the building, confirmed by an entry in the land and mortgage register, or, if there is no register, by another document confirming ownership.

#### Type of entity that owns the building

The owner of a building is a natural person or a legal person or an organizational unit without legal personality, who has the property rights to the building, confirmed by an entry in the Land and Mortgage Register or, if there is no register, by another document confirming ownership. It is irrelevant whether the owner (individual or institution) occupies the building for his own use or rents it in whole or in part to another individual or institution.

In terms of the type of building owned, a distinction is made between buildings that are owned:

• **natural person** – a building that is wholly unrestrictedly owned by a natural person regardless of whether the owner of the building lives in it, or has rented or given it for free use to another person(s), or the building has been placed in service but has not been inhabited yet;

- a housing cooperative a building to which the title of ownership (to the entire building) is held by a housing cooperative and there are no premises in that building that are the separate property of another entity;
- **gmina** a building that is owned in its entirety (i.e. there are no premises in it that constitute separate property of another entity) by a gmina, managed by a housing management company (enterprise) or a municipal organizational unit established especially for the purpose of managing housing stocks of a gmina, as well as a building managed directly by an office of gmina;
- **State Treasury** a building that in its entirety (i.e. with no premises separately owned by another entity) is under administration/management of entities managing State Treasury property;
- **company** a building that is owned entirely (i.e. no premises that are separately owned by another entity) by the company;
- **public building society (TBS)** a building owned entirely by a legal entity (i.e. there are no premises in it that constitute separate property of another entity), which has the words 'public building society' or the abbreviation 'TBS' in its name, regardless of the fact of participation in the construction costs of the building by another entity (gmina, housing cooperative, company) in exchange for obtaining dwellings (on a rental basis) for third parties indicated by those entities;
- **another entity** a building that is owned in its entirety (i.e. there are no premises in it that are the separate property of another entity) by other entities, e.g. religious associations, political parties, associations, foundations;
- **co-ownership** this category includes buildings constituting joint property, in which all or only some residential premises are separately owned by natural persons.

The year a building is placed in service (the year the building is erected) is the year in which construction has been completed.

**Connections leading to the building** refer to active and temporarily inactive installations and those that are actually already installed in the building, but the connection of the building to the network has not yet been made. Does not apply to installations that have been out of service for more than one year due to significant damage.

A building equipped with water supply system – a building in which a water supply system is provided to all or some dwellings in the building.

A building equipped with a sewage system – a building where there is an installation inside the dwelling or in a corridor (with such appliances as a sink, toilet, washbasin, bathtub) allowing for removal of waste and used water (so-called domestic sewage) to recipients: a sewage system, an outflow tank, a household treatment plant, a sewer.

A building equipped with gas supply system – a building where mains gas is supplied to dwellings (all or some of them) using a gas network.

# 7. Classifications and groupings used for population

There are the following classifications and groupings used in the 2021 Census:

- a) Groupings and classifications as defined in Commission Implementing Regulation (EU) 2017/543 of 22 March 2017 laying down rules for the application of Regulation (EC) No 763/2008 of the European Parliament and of the Council on population and housing censuses as regards the technical specifications of the topics and concerning their breakdowns;
- b) International Standard Classification of Education (ISCED 2011);
- c) International Standard ISO 3166-1, Codes for the representation of names of countries and their subdivisions Part 1: Country code (ISO 3166-1:2020).

### IV. Data sources in the 2021 Census

# 1. Administrative registers and information systems used for the census

The information scope of the 2021 Census was collected about the entire population to be surveyed using a mixed method, i.e. from administrative registers and data collected directly from respondents by means of an electronic census form using online self-reporting, telephone interview, and interview with a census enumerator.

Decisions about the utility of information systems in the censuses and the forms of their use had to be preceded by an assessment of their quality according to an accepted standard. This is because the lack of knowledge about the quality of administrative registers is a methodological problem and involves uncertainty about whether a particular register contains information that can be used for official statistics, substituting for data that could be obtained directly from respondents. Preparatory works for the 2021 Census included results of previous research and projects carried out by official statistics, concerning methodologies such as:

- a) identification of new data sources administrative registers for statistical surveys;
- b) evaluating the utility of administrative registers taking into account the requirements of official statistics;
- c) conducting analyses of the methodological compatibility of administrative registers with the system of official statistics;
- d) determining the degree of correspondence between the information characteristics of administrative records and the system of official statistics, the presentation of the coherence of public administration systems with the system of official statistics;
- e) cooperating with the administrative registers' keepers to achieve compatibility of information characteristics of objects mutually beneficial and agreed upon information standards that enable information sharing;
- f) improving the quality of the state's information system by increasing system interoperability and reducing redundancy of data collected in systems.

The following priorities are adopted in the proposed works:

- ensuring full coverage of the core variables in the 2021 Census by data from government information systems;
- b) ensuring that the additional variables in the 2021 Census are covered to the fullest extent possible by data from public administration information systems;
- c) obtaining data from public administration information systems with PESEL number and address;
- d) linking administrative data from different systems at the unit level micro-integration of different sources;
- e) preparation of complete and up-to-date inventories for the 2021 Census.

The assessment of the quality of administrative records planned for use in the 2021 Census was also based on the expertise of statistical staff. It should be emphasized that official statistics has been successfully using data from administrative sources for several decades, while the National Population and Housing Census conducted in 2011 brought major progress in the evaluation of administrative sources, as well as their much wider use in statistical surveys, e.g. through systematic cooperation with administrators of administrative registers and systems.

All features in the registers and systems have been assessed for their ability to provide information on population, dwellings, and buildings – in accordance with the definitions and classifications contained in the recommendations of the United Nations Statistical Office (UND) and EUROSTAT, applicable to the countries of the ECE region and the European Union, and Regulation (EC) No 763/2008 of 9 July 2008 on population and housing censuses and their implementing regulations.

The assessment of the register's quality covered three areas:

- a) information on the register's quality;
- b) information on the quality of data in a register;
- c) a general evaluation of the administrative register.

Approximately 35 major registers and information systems were used in the 2021 Census. The following should be mentioned as priorities: the Universal Electronic System for Registration of the Population and registration collections of gminas in the field of population data; sets of data from the Social Insurance Institution system concerning payers of contributions, insured persons and persons receiving pensions, pre-retirement benefits or allowances, social pensions, self-paid cash benefits; Central Register of Insured Persons – with regard to data on persons covered by the health insurance system; Land and building register, National Register of Boundaries and Area of Administrative Units of Poland – as regards data on buildings and premises; The National Official Register of Territorial Division of the Country, as well as data from the State Fund for Rehabilitation of Disabled Persons, Agricultural Social Insurance Fund, the Pobyt System, the POL-on System (integrated information system on Polish science and higher education), the Educational Information System, and information systems of powiat employment offices on the unemployed and job seekers; data from social welfare systems on benefit recipients and claimants.

Additionally, data from non-administrative data sources were used, i.e. from: operators of public telecommunication networks, entrepreneurs selling and distributing electric energy, entities conducting activity within the scope of collective sewage disposal and collective water supply, within the scope of distribution or trading in gaseous fuels, within the scope of transmission and generation of heat energy, for which the final customer purchasing are households<sup>2</sup>.

It was considered that the eligible administrative registers and systems would be used as:

- a) a direct source of data:
- b) a source of information for creating a list of entities to be enumerated in the census (personal/address/housing list);
- c) a source of information for imputation, data estimation, comparisons and data quality determination.

#### 2. Electronic census form

The electronic census form is an interactive application that consists of the following parts: data of the person (with whom the census was carried out or who did the online self-enumeration), determining the person's address of residence, persons in a dwelling/premises other than a dwelling/collective living quarters, persons staying abroad, family relations, personal questionnaires containing questions on demographic-social, migration, national or ethnic, religion and economic activity characteristics of the persons and a housing questionnaire containing questions on the description of the dwelling and the building.

It was assumed that the adult who first logged on to the census application provided information about the dwelling and all persons living there, established the personal composition of the dwelling, and defined family relations between persons. Subsequently, personal questionnaires were filled in for persons residing at the given address.

The application contained scope and logic checks that allowed the user to move on to subsequent questions depending on the answer given to the question. Thus, the number of all questions in the electronic form should not be equated with the actual number of questions answered by the respondent, as it resulted from the individual situation of the person covered by the census, e.g. his/her migration history, labour market status, being

<sup>2</sup> For a complete list of administrative registers and non-administrative information systems, see Annex 2 to the National Population and Housing Census Act 2021 <a href="https://spis.gov.pl/ustawa-o-nsp/">https://spis.gov.pl/ustawa-o-nsp/</a> Accessed: 29.12.2021

a person with disabilities. The application displayed visual prompts (in the form of so called 'helps'), containing a definition of a given concept and a description facilitating understanding of the question, in order to provide a correct answer.

The electronic form was supported by dictionaries of:

- a) localities locality, voivodship, powiat, gmina;
- b) countries of residence:
- c) countries of birth;
- d) countries of citizenship;
- e) ethnonyms with open text capabilities;
- f) languages with open text capabilities;
- g) denominations with open text capabilities;
- h) fuel types and energy sources to determine the method of heating the dwelling;
- occupations and specialties. This dictionary was mainly based on occupations (groups of occupations) described in the Classification of Occupations and Specialties (KZiS)in three or four characters. The dictionary was supplemented with occupations from the KZiS-occurring on six characters, which represented well the collective, four-character group of occupations. Also used to a limited extent are popular synonyms often used in colloquial speech;
- j) non-agricultural activities. The dictionary is based on groups of activities denoted by three digits in Polish Classification of Activities (PKD code) 2007. Additions have also been made to include some class names, as well as the few synonyms for types of activities found in colloquial speech.

Note that the census application for the occupation and specialty and non-agricultural activity dictionaries uses a 3-step approach to determining occupation and non-agricultural activity. The first stage allowed the selection of an occupation or a type of activity from complete dictionaries containing in both cases about 1200 entries. In case of problems with indicating the proper entry from full dictionaries of professions and activities, there was a possibility of choosing from a shortened list of names of type of activity (corresponding to sections according to PKD code in case of the dictionary of activities or a shortened list of professions (corresponding to large groups of professions). The final, third solution (step) provided was the ability to 'manually' enter the occupation and type of activity in the text field.

The census app has also been adapted for persons with disabilities. Deaf and deafblind persons were able to use a web-based self-reporting application that met Web Content Accessibility Guidelines (WCAG) 2.0 standards. Those who did not have access to the Internet could use the census sites in the nearest municipal office, where, in accordance with the Act of August 19, 2011 on Sign Language and Other Means of Communication, service was also provided in sign language.

Four language versions of the census application were prepared. Apart from Polish, the application was available in English, Russian and Ukrainian.

# 3. Survey of persons staying in collective living quarters (CLQs) and the homeless

Information on persons staying in collective living quarters and the homeless allows for a comprehensive characterization of the population staying in dwellings and in other types of facilities, which is also important for developing information on households, but most importantly for characterizing the full population in the census.

Information needs on persons staying in collective living quarters result both from obligations imposed on statistics by international legal acts and from national needs. The EC implementing regulations for the 2020 round of population and housing censuses, including Commission Regulation EU 2017/543 of 22 March 2017 laying down

rules for the application of Regulation (EC) No 763/2008 of the European Parliament and of the Council on population and housing censuses as regards the technical specifications of the topics and their breakdowns, oblige member countries to provide information on persons living in an institutional household under topics concerning, inter alia:

- type of living quarters (collective living quarters);
- housing conditions (residents of collective living quarters, other living quarters and the homeless).

According to the definition adopted in the EU Commission Regulation 2017/543, an 'institutional household' persons comprises persons whose need for shelter and subsistence are being provided by an institution. An institution is understood to be a legal body for the purpose of long-term inhabitation and provision of services to a group of persons. Institutions usually have common facilities shared by the occupants (baths, lounges, eating facilities, dormitories and so forth).

A homeless person is a person who, for a variety of reasons – economic, familial, or administrative – claims to have no permanent place to live. These are persons living in the streets without a shelter that would fall within the scope of living quarters (primary homelessness) or persons moving frequently between temporary accommodation (secondary homelessness). Homeless persons do not include those who are deprived of a roof over their heads due to random accidents (disasters, floods, fires, etc.). Accordingly, the census also **covered persons staying in the collective living quarters selected for the survey**.

A collective living quarters (CLQs) is a group of rooms (rooms and other ancillary facilities), located in one or more buildings, occupied by one separate establishment, providing services for the following activities:

- education and work;
- foster care system and facilities for children and youth with special needs;
- treatment and care:
- facilities of religious institutions;
- temporary shelter:
- sheltered housing;
- correctional facilities and juvenile shelters.

The aim of the census in collective living quarters was to obtain information on the number of persons staying in particular types of facilities, including those intended for the homeless.

The data on the persons staying in collective living quarters were submitted by the managers of these facilities, within the scope of the documentation held (Article 19 of the abovementioned Act on Census 2021), using an electronic application dedicated to. The application contained basic information on the type of facility and persons staying there. Complementarily and independently, persons staying in collective living quarters were able to provide data on their own through an online self-enumeration or upon request through a telephone interview.

A letter from the President of Statistics Poland was sent to the addresses of the individual collective living quarters identified in the list of CLQs, together with the given facility's login, used to activate the account in the census application. The letter from the President of Statistics Poland also contained information on the purpose, the method of performing the census, the website address concerning the census in the CLQs, the telephone number for the hotline and the method of logging in/authentication.

For the purpose of performing a census in CLQs, detailed 'Guidelines for enumeration of persons in collective living quarters' have been developed, which include both rules of conduct for logging in and submitting data, as well as rules for filling in data in the application.

Due to the state of the SARS-CoV-2 virus epidemic it was not possible to carry out a separate survey of homeless persons, especially those who did not use temporary shelter in institutional facilities. A homeless person who wanted to participate in the census, filled in a census form giving, if possible, the address where he/she stays or the name of the place of his/her current stay, indicating that he/she is a homeless person.

# V. Construction and establishment of inventories in the 2021 Census

A necessary element of the censuses is the preparation of a list of survey units, i.e. buildings, dwellings and persons containing address information and, for persons, data allowing identification of a given unit.

In the 2021 Census, the list of persons, addresses and dwellings has been prepared on the basis of address data and data on persons from available administrative and statistical registers. The person and address-dwelling lists were the main source of information both on persons and on buildings and dwellings to be enumerated. In addition, the inventory was the primary tool for managing the census, checking the completeness of the enumerated persons, buildings and dwellings, authentication in the self-enumeration, as well as the flow of information on the degree of completion of the census between data collection channels. At the same time, the lists is also a very important element in the processing and elaboration of the results of the Census 2021.

Many administrative, non-administrative and statistical registers and systems were used in the construction of the aforementioned lists. On the basis of these sources, the inventory has collected the most complete resource of persons (Polish citizens and foreigners) as well as dwellings and buildings, which in a key way supported the implementation of the adopted methods of collecting data from respondents (in the first place, implementation of the census through an online self-enumeration and a telephone interview, and then a direct interview by a census enumerator).

# 1. Address – dwelling list

The address and dwelling inventory contained addresses of buildings, dwellings, collective living quarters and other inhabited premises to be enumerated, together with spatial location data in the form of x, y coordinates.

The process of preparing data for the address-dwelling list was conducted separately for buildings and dwellings and collective living quarters.

The address-dwelling list for dwellings was a combination of selected address data from:

- a) the system of address identification for streets, properties, buildings and dwellings (NOBC) functioning in the framework of the TERYT national official register of territorial division of the country (Journal of Laws of 1998, No. 157, item 1031, as amended), containing inhabited and unoccupied dwellings located in residential and non-residential buildings, as well as dwellings within closed facilities (occupied by persons subject to the census) and inhabited premises that are not dwellings;
- b) official registers and information systems of public administration:
  - Universal Electronic System for Registration of the Population(PESEL);
  - Central Register of Entities National Taxpayers' Register (CRP-KEP);
  - Central Register of Insured Persons National Health Fund (NFZ);
  - Comprehensive Information System Central Register of the Insured (KSI-CRU) Social Insurance Institution (ZUS);
  - new Social Insurance Information System (nSIU) Agricultural Social Insurance Fund (KRUS);
  - address data from the National Register of Boundaries and Area of Administrative Units of Poland (PRG), supplemented by the Register of localities, streets and addresses (EMUiA);
- c) information systems of enterprises performing economic activity in the field of sale or distribution of electricity.

From among many types of addresses collected in the above-mentioned sources, the following have been selected for the construction of the address-dwelling list:

- the address of registration for permanent and temporary residence (PESEL);
- the insured person's registered permanent address, the insured person's residential address, the payer's residential address (ZUS):
- the natural person's residential address (KEP);
- the insured person's residential address (KRUS);
- beneficiary's residential address (KRUS);
- the insured person's residential address (NFZ);
- the property address (PRG/EMUiA);
- · addresses of premises to which electricity is supplied.

The address-dwelling list as a set created on the basis of many sources, with different quality and completeness of address data required verification. Due to the scope of the census, the verification of the List covered objects directly related to the fact of residence of the population. Verification was conducted by employees of gmina offices, and the changes made by them were then analysed and accepted by experts of statistical services.

The purpose of the verification was to ensure completeness of buildings, dwellings, collective living quarters and other objects inhabited by the population (especially those put into use recently) and to establish correctness of their addresses.

The obligation of gminas to verify, update and complete the address-dwelling list resulted from:

 Article 24(1)(1) of the Act of 9 August 2019 on the 2021 National Population and Housing Census. (Journal of Laws of 2019, item 1775, of 2020, item 1486, of 2021, item 615);

#### and

• the Regulation of the Council of Ministers of 15 April 2020 on the detailed scope of data for the needs of the Addresses-Dwelling List, provided for verification, updating and supplementation by gminas in connection with the National Population and Housing Census 2021 (Journal of Laws of 2020, item 737).

In accordance with the aforementioned regulation, the subject of verification, updating and supplementation of the Address-Dwelling List was data on buildings, dwellings and collective living quarters, i.e. the following information:

- concerning buildings: name of the locality, name of the street, serial number or serial numbers of the building, additional numbering of buildings located on the same real estate and marked with the same serial number, type of the building: residential, non-residential, collective living quarter, description of the non-residential building (more precise definition of the building, e.g. school, office, warehouse), description of the address, location of the building in the state system of spatial references;
- concerning dwellings: type (comprising: dwelling, part of a dwelling forming part of the gmina's housing stock occupied on the basis of a lease agreement, dwelling situated in a closed facility, occupied premises other than a dwelling), dwelling number, reason for non-occupancy of a dwelling forming part of the gmina's housing stock;
- for collective living quarters: name of facility, number of buildings occupied by the facility.

The process of verification of the address-dwelling list was supported by an application prepared for this purpose, which, in addition to the descriptive part, including addresses from the TERYT register and those from administrative and non-administrative sources (separately for dwellings and collective living quarters), also included a digital map containing the following layers: administrative division (voivodship, powiat and gmina borders), statistical division (borders and numbers of statistical regions and census districts), registration division, location and names of localities, street and road network, address points. The support for the above-mentioned

layers were the following: orthophotomap, MapBox, OpenStreet, BDOT500. The application enabled the following operations: modification of record parameters (including change of location on the map), confirmation of a correct record, adding new items, marking items for deletion and linking addresses from the administrative records with corresponding dwellings from the TERYT register.

Verification of the address-dwelling inventory by gmina offices has been carried out from 2 November to 31 December 2020.

# 2. List of persons

An important stage in the process of compiling the census list was the preparation of a list of persons with addresses of residence in Poland assigned to these persons in registers. In order to build the population list, sources were selected which, due to their subject and object scope and verified quality, were optimal for the purpose. The following information resources were used:

- Chancellery of the Prime Minister (former Ministry of Digitalisation) PESEL register with regard to persons registered for permanent or temporary residence in Poland; persons de-registered from permanent residence; persons who left Poland; persons who emigrated from Poland for permanent residence;
- Ministry of Finance, Central Register of Entities National Taxpayers' Register (KEP) with regard to natural persons (taxpayers) conducting and not conducting business activity;
- Social Insurance Institution (ZUS), Comprehensive Information System of Social Insurance Institution Central Register of the Insured Persons and Central Register of Contributors as regards natural persons (insured persons and contributors); insured persons/ beneficiaries for whom an open declaration for insurance has been established;
- Agricultural Social Insurance Fund (KRUS), KRUSNAL system with regard to insured persons and recipients
  of agricultural benefits;
- National Health Fund (NFZ) with respect to insured persons:
- Agency for Restructuring and Modernisation of Agriculture (ARiMR) with regard to natural persons agricultural producers and holders of farm animals: pigs, cattle, sheep and goats.

The population was defined using the UNS identifier (unique statistical number). The UNS number was assigned automatically to each person having a PESEL number, as well as by means of special, complex algorithms and with the use of numerous data sources to persons who did not have this number. UNS is a permanent numerical symbol, which unambiguously identifies a natural person and through its uniqueness makes it possible to distinguish many persons bearing the same name and surname. The assumption connected with assigning UNS arose due to the necessity of taking into account also foreigners staying on the territory of Poland, not all of whom have a PESEL number. An important element of creating the whole list for the needs of the census in the context of data personalisation and realisation of the census through the census form (authentication) was attaching the residential addresses from selected administrative registers.

# 3. The role of the inventory in the census implementation process

The most important stage of work in the construction of the list was the integration of the list of persons with the address data of the updated address and dwelling list. Carrying out this stage was important due to the fact of checking both the quality and correctness of the established addresses and those attached to persons. The created persons and address-dwelling list, together with the assigned telephone numbers and information on spatial location, was the basis for the implementation of the 2021 Census. This made it possible to feed the multi-channel census data collection system (CAXI) and to monitor the progress of the census, as well as to logistically manage the work of the census enumerators.

Additionally, the list was supplemented with information important for the management of the process of data collection from respondents in the form of special markings of the surveyed units, the so-called flags. This information was derived from administrative or non-administrative data. The flags indicated the potential occurrence of phenomena that might constitute an impediment to the acquisition of data using the different data collection channels (CAXI) envisaged in the census, including in particular information on the possibility of obtaining data from an online self-enumeration, limitations in communication, or difficulties in access to persons in the dwelling. Some of the flags were developed as a result of other flags or attributes of persons assigned to the dwelling (designation due to the personal composition of the dwelling), while others were attributes relating directly to the dwelling.

These flags had a technical and organizational impact on the management of the census, because by appropriately diagnosing different situations within dwellings and persons, they made it possible to decide on the allocation of priority units that did not make use of the online self-enumeration or the 'Participate in the census/Fill out the census form? by phone' helpline to other channels for active collection of data envisaged by the census. This process effectively supported the work of the dispatcher.

# 4. List of collective living quarters (CLQs)

One of the stages of work related to the preparation and implementation of the 2021 Census was the creation of a list of collective living quarters (CLQs). The list of CLQs containing information on the type of facilities and address characteristics was used to contact unit managers, provide information on the census and monitor the completeness of the survey in CLQs.

The preparation of this list was aimed at distinguishing the population of collective living quarters with a well-defined typology and scope of activities. The list was compiled in several stages in order to achieve the most complete possible population of CLQs. The list of collective living quarters was created on the basis of data from:

- the address identification system for streets, properties, buildings and dwellings (NOBC), which is part of the TERYT national official register of territorial division of the country;
- the scattered numerous registers and lists of CLQ published on websites (among others, registers and lists maintained by voivodship offices);
- the lists of CLQs from the resources of official statistics, including, among others, the Database of Statistical Units (BJS).

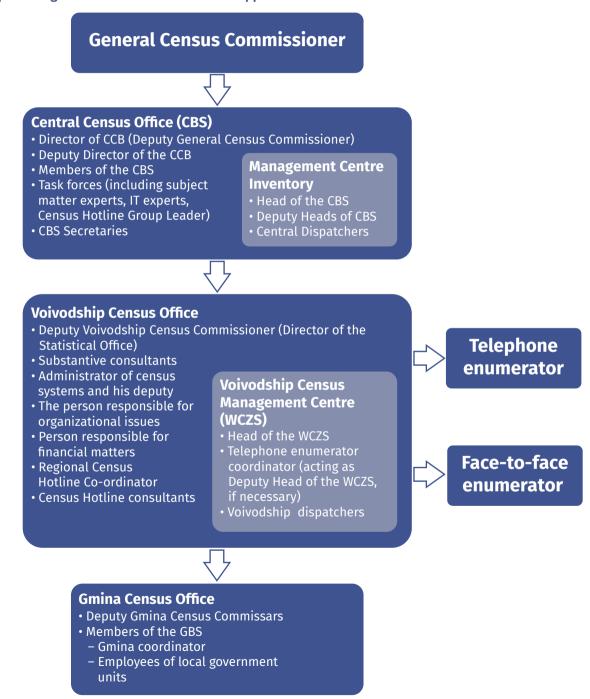
The address data included in the list of collective living quarters, similarly to the address data in the address-dwelling list, were verified in the offices of gminas.

As a result, the list of collective living quarters intended for the execution of the CLQs survey conducted within the census included information on the address and type of facility, supplemented by contact data in the scope of e-mail address and telephone number in order to make direct contact with the collective living quarters during the execution of the 2021 Census.

# VI. Organization of the 2021 Census apparatus

The entire census work, i.e. the preparation, organization and execution of the census, as well as the processing of the results, the release and dissemination of the resulting statistical information, is managed by the President of Statistics Poland as the General Census Commissioner and the administrator of personal data.

Simplified organizational chart of the census apparatus



# 1. Central Census Office (CBS)

The Central Census Office was established by the General Census Commissioner pursuant to Order No. 1 dated September 11, 2019. (as amended, i.e. Order No. 2 of 13 November 2019, Order No. 3 of 25 March 2020 and Order No. 4 of 30 November 2020), which also regulated the scope of work and organizational structure.

The work of the CBS is directed by the Director of the CBS, who is the director of Statistics Poland organizational unit responsible for censuses and who also acts as the Deputy General Census Commissioner.

The Central Census Office is composed of:

- the CBS Director;
- 2. the Vice- Director of CBS;
- 3. the Members of the CBS;
- 4. the CBS secretaries;
- 5. task forces for:
  - data collection by CAxI methods;
  - organization and preparation of factual materials;
  - · personnel and organization of training;
  - financial;
  - legal;
  - promotion of censuses;
  - data sources;
  - inventories;
  - data sharing;
  - quality;
  - statistical confidentiality;
  - preparation of the CAxI Census 2021 application;
  - processing and analysis of Census 2021 data;
  - CAxI authentication;
  - ICT infrastructure;
  - IT systems;
  - · process control;
  - security;
  - postal operator;
  - hotline;
- 6. legal advisor;
- 7. CZS (Census Management Centre).

#### **Diagram showing the CBS Task Forces**



Within the CBS there were also, originating from task groups:

- subject matter experts persons from the Task Force on inventorie and the Task Force on Preparation of
  CAXI Application (on the methodology side), who handled submissions in the Redmine submission system
  and provided support to Census Hotline consultants, central and voivodship dispatchers at the level of this
  system, on the methodology side;
- IT experts persons from the CAXI Authentication Task Force, IT Systems Task Force on Preparation of CAXI Application (from the IT side), administering census systems, who handled notifications in Redmine and provided support to census hotline consultants, central and voivodship dispatchers at the level of this system, with respect to census applications and IT issues;
- census hotline group leader, who was responsible for planning, coordinating and monitoring the operation
  of the census hotline, developing service schedules and hotline reports, as well as handling requests in Redmine and providing support to census hotline consultants, central and voivodship dispatchers at the level of
  this system, in terms of the census hotline.

The CBS tasks included:

- · development of strategic documents;
- preparation of materials and conduct of central training;
- monitoring and supervising the preparation for and conduct of the census;
- · preparation and support of census dissemination activities;
- assistance in day-to-day activities supporting the implementation of the census;
- support of the WBS during the census by central dispatchers;
- preparation of a report on the implementation of the census.

Within the CBS, the Census Management Centre (CZS) operated to manage the conduct of the 2021 Census in the country.

# 2. Voivodship Census Offices (WBS)

Voivodship Census Offices were established by Voivodship Census Commissioners (voivodes) to carry out census work in the voivodship. Their tasks included: monitoring the timely and proper conduct of census work in the province, monitoring promotional and dissemination activities in the province, supporting Gmina Census Commissioners and performing other work ordered by the General Census Commissioner.

The Deputy Voivodship Census Commissioner was the locally competent director of the statistical office, who undertook all possible measures to obtain complete results of the 2021 Census and correct enumeration of all persons and housing units subject to enumeration in the voivodship; they were performed by employees of the locally competent statistical offices.

In addition, his tasks included:

- a) supervising the work carried out by the WBS for the 2021 Census in the voivodship;
- b) managing the work of the Voivodship Census Offices (WBS) and supervising the work of the Gmina Census Offices (GBS);
- c) appointing staff (including statistical interviewers) to perform work in the WBS and allocating WBS members to perform individual census work:
- d) establishment of the Voivodship Census Management Centre (WCZS) and appointment of the head of the WCZS;
- e) appointment of a coordinator for the telephone enumerators;
- f) appointment of voivodship dispatchers and telephone enumerators;
- g) appointment of the census systems administrator and the deputy census administrator;
- h) appointment of a regional census hotline coordinator and persons to act as census hotline consultants at the statistical office:
- i) overseeing the recruitment and training of candidates for field enumerators;
- j) concluding contracts with field enumerators and granting them authorizations to process personal data and providing field and telephone enumerators with enumerator IDs;
- k) supervision of voivodship trainings according to the adopted organization of trainings described in § 19 of this manual;
- l) provision of free access to a computer station with software installed that allows for conducting an online self-enumeration, adapted to the needs of persons with disabilities, together with protective measures appropriate to the current pandemic risk, as well as at the request of the person using it – necessary assistance in operating the interactive application;

- m) conducting and monitoring activities aimed at achieving the highest possible response rate in the CAXI;
- n) carrying out activities popularizing census in the province;
- o) cooperation and support to GBS in the work carried out for the census;
- p) supervision over observance of statistical confidentiality and protection of personal data, and granting authorizations to process personal data, within the scope of the granted authorization/authorization;
- q) reporting to the CBS on matters not mentioned in the instructions that require uniform resolution;
- r) supervising the preparation of the census report and making financial settlements with the gminas, WBS and GBS members and census enumerators;
- s) Immediately reporting to the Director of the CBS obstacles and difficulties in the timely implementation of census tasks;
- t) performing other tasks ordered by the General Census Commissioner or the Director of the CBS.

#### Number of staff at voivodship census offices:

Description of functions	Number of persons
Voivodship Census Commissioner	16
Deputy Voivodship Census Commissioner	16
Member of the Voivodship Census Office	1535
Member of the Voivodship Census Management Centre	927

# 3. Voivodship Census Management Centre (WCZS)

In addition, for the census data collection stage, the Deputy Regional Census Commissioner set up the Regional Census Management Centre (WCZS), consisting of the manager, the regional dispatchers, the coordinator of the census enumerators conducting telephone interviews and the census enumerators coming from internal recruitment.

#### **Recommended number of regional dispatchers:**

Voivodship	Number of region al dispatchers
Dolnośląskie	64
Kujawsko-Pomorskie	46
Lubelskie	47
Lubuskie	22
Łódzkie	54
Małopolskie	75
Mazowieckie	118
Opolskie	22
Podkarpackie	47

Voivodship	Number of region al dispatchers
Podlaskie	26
Pomorskie	51
Śląskie	100
Świętokrzyskie	27
Warmińsko-Mazurskie	32
Wielkopolskie	77
Zachodniopomorskie	38
TOTAL	846

Their tasks included, among others: monitoring of the census in the voivodship and responding to threats of failure to complete the census by the planned deadline; supervising the work of voivodship dispatchers and defining the schedule of voivodship dispatchers' on-call duty; providing substantive and organizational support to GBS.

The course of the census on the territory of the voivodship was supervised by voivodship dispatchers, who, with the use of the CORstat\_Census system, monitored the progress of the census on a current basis and the flow of data via the Internet, allocated address points for the enumerators, cooperated with gmina coordinators, reacted in the event of a threat to the field enumerator.

The detailed tasks of individual members of the Voivodship Census Office and the Voivodship Census Management Centre were specified in the Organizational Instructions for the National Population and Housing Census in 2021.

# 4. Gmina Census Offices (GBS)

In the territory of a gmina, the census work was directed by the head of the commune, the mayor or the head of the city, respectively, as the Commune Census Commissioner. To carry out census work, the Commissioners appointed Gmina Census Offices, recruiting members, including the Deputy Gmina Census Commissioner and commune coordinators, from the staff of the local government units reporting to them. The Gmina Census Commissioners themselves determined the number of persons involved in the census work and the tasks assigned to them.

The tasks of the GBS included:

- a) conducting activities promoting the census, and especially the self-enumeration, in cooperation with the WBS, based on materials prepared at the CBS;
- carrying out an appropriate information and dissemination campaign aimed at recruiting a sufficient number of candidates for field enumerators and monitoring its impact; based on the materials prepared in the CBS and in close cooperation with the WBS and in accordance with the adopted line of communication;
- c) cooperation with the locally competent WBS in logistical and organizational-technical work;
- d) assisting the gmina coordinator in day-to-day matters concerning the census;
- e) registering the data of field enumerator candidates in the SER;
- f) providing information to the candidates for field enumerators about training and qualifying those who meet the requirements to work as a field enumerator;

- g) keeping a list of persons who will be qualified to be field enumerators and persons who will constitute a reserve resource for appointment as field enumerators should the need arise;
- h) transmitting reports on the progress of the census work in the gmina to the WBS by e-mail;
- i) monitoring the progress of the census and immediately reporting to the GKS any organizational problems, and to the WBS any methodological problems not resolved on the basis of the current instructions;
- j) assisting the field counters in all situations that threaten the safety of the counters or that may cause the census results to be incomplete;
- k) drawing up a report on the progress of the census and sending it by e-mail to the WBS.

The communal coordinator was a communicative and reliable person, fluent in computer skills. The coordinator was supported in his/her duties by the other members of the Gmina Census Office. The municipal coordinator was trained, among others, in methodology, organization, data security in the census, including personal data protection and popularization, and issues related to the operation of the form application for data collection.

## 5. Self-enumeration stations

Provision of free access to a computer station with software installed to enable the online self-enumeration and necessary assistance in operating the interactive application (at the request of the person using it) was the responsibility of the General Census Commissioner, the Deputy Regional Census Commissioner (the director of the statistical office) and the Gmina Census Commissioner (the head of the village/mayor/city mayor). The collective list of self-census premises was published on 31 March 2021 on the website of the Statistics Poland (GUS). More than 2,550 self-census posts have been set up across the country. The posts were launched at Statistics Poland, statistical offices and gmina offices and gmina organizational units. All of them were provided in a sanitary regime, with personal protective equipment adequate to the current pandemic risk. The posts were adjusted to the needs of disabled persons. A specially trained and sworn person was present at each of them to support respondents during the self-enumeration if necessary.

Additionally, in order to increase the completeness of the census, statistical offices – with the support of gmina census offices – organised mobile self-enumeration points in some offices of ZUS, the Polish Post Office, as well as at numerous open-air events, i.e. family picnics, communal harvest festivals, meetings in village common rooms, etc.

#### 6. Census enumerators

Work for the 2021 population and housing census was also carried out by census enumerators. Their task was to obtain data collected as part of the population and housing census from persons who did not self-enumerate. A person who did not complete an online self-census or did not provide data in the form of a telephone interview could not refuse to provide data in the form of a face-to-face interview with a census enumerator.

During the 2021 Census, census enumerators conducted telephone and face-to-face interviews.

The census enumerators conducting the interviews by telephone were:

- a) employees of units of official statistical services, including statistical interviewers, appointed by the IRSG;
- b) natural persons appointed by the IRSG as a result of external recruitment, organised under the principles and procedure defined by the Census Act 2021, with whom a contract of mandate was concluded.

The principles of recruitment of field enumerators:

- a) the recruitment was open and competitive;
- b) the recruitment was conducted and performed by the GBS:

- c) recruitment was made from among persons:
  - adults;
  - of good reputation;
  - have at least a secondary education;
  - computer literate;
  - speak and write in Polish;
  - who have not been sentenced by a final court judgement for an intentional crime or an intentional fiscal crime.

All candidates for enumerators were required to attend a training course. A candidate who did not attend the training could not take the exam. The GBS kept a list of persons who were qualified to be an enumerator and a reserve list of persons. The census enumerator was obliged to respect statistical confidentiality and the provisions of the legal regulations on the protection of personal data, to use an ID badge and wear it visibly while working in the field, to use during the interviews only a mobile device equipped with an interactive form application and to act during the interviews in accordance with the provisions of the methodological manual and the knowledge acquired during the training.

#### Number of interviewers:

Voivodship	Number of telephone interviewers	Number of field operators
Dolnośląskie	161	1034
Kujawsko-pomorskie	186	1148
Lubelskie	66	1014
Lubuskie	30	332
Łódzkie	115	962
Małopolskie	110	1414
Mazowieckie	301	2185
Opolskie	46	326
Podkarpackie	173	989
Podlaskie	45	599
Pomorskie	56	840
Śląskie	196	1872
Świętokrzyskie	59	621
Warmińsko-mazurskie	72	510
Wielkopolskie	114	1468
Zachodniopomorskie	69	602
TOTAL	1799	15910

## 7. Census hotline

For the purposes of the implementation of the Census 2021, a census hotline has been set up, open on: 22 279 99 99 ext. 1 (call charge as per operator's tariff), the hotline operated from 15 March to 30 September 2021.

The helpline was a facilitator for respondents to:

- enumeration by telephone using the 'Census on demand' method (census with the assistance of a census agent/telephone operator),
- filling in the census form by themselves using the CAWI method,
- obtaining assistance and factual information about the Census 2021,
- obtain information on census enumerators and verify their identity.

To ensure efficient operation of the hotline, regional census hotline coordinators were appointed in the voivodship census offices, working together with the leader of the census hotline group.

The tasks of the group leader for the census hotline included:

- planning and coordinating the operation of the census hotline,
- developing a work schedule for consultants,
- monitoring the volume of calls and, depending on the needs, increasing the staff and the number of working hours,
- cooperation with Voivodship Census Offices, the Statistical Information Technology Centre,
- and departments of Statistics Poland in the field of effective service and functioning of the census info-line,
- · ongoing support for persons operating the census info-line,
- · monitoring the reporting system,
- preparing reports on the functioning of the hotline.

The helpline of the National Population and Housing Census 2021 was operated by the staff of the voivodship statistical offices. A respondent calling the hotline number: **22 279 99 99**, could dial:

number 1 – National Population and Housing Census 2021;

and then:

number 1 – 'Sign up by phone';

or

number 2 – 'Assistance and factual information about the census and verification of the identity of the enumerator'.

Next, the respondent was asked to enter the **postal code** of the town in which he or she lives (as a string of digits, without dashes or other special characters). After entering the postal code of the locality, the respondent was automatically connected to the Statistical Office from the province assigned to the code. The system verified the postal codes entered and automatically assigned them to a specific voivodship/16 US authorities.

In the situation where the respondent did not enter the postal code of the locality or entered the wrong number twice, he or she was automatically redirected to the general line. Automatic switching to a free, different consultant was preceded by a message such as: 'due to extended waiting time, you will be redirected to any available consultant...'. In this way the respondent knew that he was talking to a consultant from a different voivodship than the one he had initially selected.

If all lines were busy and the call waiting time was prolonged, the respondent had the option to select the callback option (message like: 'if you do not want to wait and ask for callback, press #'). The 2021 Census hotline was launched before the deadline for the start of the 2021 Census. From 15 to 31 March 2021, the hotline was open

from 8:00 to 18:00, Monday to Friday, excluding weekends. During this time, respondents were not able to enumerate, but only to inquire about the census. Full operation of the helpline began on the day the census began, 1 April 2021. From 1 April to 31 August 2021, the helpline was open from 8:00 to 18:00, Monday to Friday, excluding weekends and public holidays.

In September, which was the last month of the census, on-call hours were also introduced on Saturdays and Sundays and, at the last stage of the census, the hotline hours were extended to 20:00.

## 8. Training of the census apparatus members

Due to the pandemic risk associated with COVID-19, training for the population and housing census was conducted remotely. This form of training allowed participants to choose a date convenient to them within the timeframe offered. It was a novelty for both the trainees and the trainers and required a lot of self-discipline from the participants.

Prior to the commencement of the Census of Agriculture, training sessions were held for all groups of persons involved in census work in order to prepare staff of official statistics services and candidates for census enumerators for the implementation of the census.

The training was organised in a cascade model.

In the first stage, central training was conducted, in which substantive and organizational trainers, central and voivodship dispatchers, coordinators and consultants of the census hotline, directors and deputy directors of statistical offices and other members of voivodship census bureaus (WBS) were trained. The centrally trained trainers then trained candidates for field and telephone enumerators and members of the Gmina Census Offices (GBS), and also retrained census enumerators.

The following training courses were delivered as part of the central training:

- 1. Methodology and organization of the 2021 Census.
  - This training was intended for substantive and organizational trainers (i.e. employees of statistical offices, who in the next stage of training conducted training for candidates for census enumerators and members of the GBS), central and voivodship dispatchers, census hotline consultants and other employees of the GBS. The scope of training included the following topics:
  - organization of the 2021 Census: general regulations, structure of the census apparatus, census equipment and its tasks, census enumerators of various types (recruitment, training, tasks);
  - personal data protection;
  - popularization of the 2021 Census: organization of central and regional promotion, activities of the Central Census Office, voivodship and gmina census offices in the field of promotion, line of communication, organization of hotlines;
  - social engineering: the most important problems that may arise in face-to-face and telephone interviews, e.g. how to convey questions, basic communication barriers, stress in the work of interviewers, verbal and non-verbal communication;
  - Methodological aspects of 2021 Census and rules for filling in the form.
- 2. Practical workshops for substantive and organizational trainers.

The workshops were intended for employees of statistical offices in order to prepare them for the role of trainers who, in the next stage of training, conducted trainings for candidates for census enumerators and GBS members. The workshops consisted in working with the census application, including conducting interviews based on training examples.

- 3. Workshops for central and voivodship dispatchers.
  - Workshops were intended for employees of Statistics Poland and statistical offices acting as central and voivodship dispatchers. The main objective of the training was to present the functionality of the system management and monitoring of the population and housing census in the CORstat\_Census system built especially for this purpose.
- 4. Workshops for census hotline consultants.

The workshop was intended for employees of statistical offices acting as Census Hotline consultants. The main objective of the training was to prepare employees of official statistics services for the role of census hotline consultants, whose task was to provide information support on the Census 2021, such as respondent support by assisting in self-enumeration (logging in and explaining questions in the application), verification of the accountant, providing information on the 2021 Census (e.g. objectives of the census, GDPR), as well as to familiarise employees of official statistics services with the application for servicing the census hotline, the CORstat\_Census application, the Redmine Notification System and the census application.

In addition, recordings of the central trainings were made available to staff of official statistics and answers to questions asked during the central trainings via chat were developed.

There was also developed a procedure of organization of training of candidates for census enumerators, which included training of candidates via e-learning application, online workshops conducted by WBS and rules of examination in the e-learning system.

In order to obtain the best quality data from the respondents and to facilitate the data collection process, a set of guidelines and instructions was prepared with the following content:

- 1. Organizational manual for the 2021 Census, intended for voivodship and gmina census offices;
- 2. Methodological manual intended for enumerators performing the census by telephone and face-to-face interviewing. The document contained principles for filling in the census application, including explanations concerning definitions of terms, attached dictionaries, and examples and solutions for selected cases;
- 3. Procedures for the 2021 Census for voivodship and gmina census offices, including census agents;
- 4. Instructions for filling in the census application (self-enumeration), intended for persons performing the self-enumeration. The manual contained rules for filling in the census application which, in addition to the instructions on the electronic form, served as support material for census respondents in case of difficulties encountered in answering the questions. It was a document intended for external users, which was officially made available on the website https://spis.gov.pl/. The document was developed in language versions, i.e. apart from the version in Polish, a document in English, Ukrainian and Russian was also placed on the website;
- 5. instructions for logging in to the self-census;
- 6. a brochure intended for employees of voivodship census offices and persons working on the hotline, in order to enable them to provide quick and appropriate answers to the questions asked. The material included a summary of the most important issues from the methodological manual with numerous examples;
- 7. Instructions for using CORstat\_Census application;
- 8. instructions for the Redmine Notification System;
- 9. instructions for use of the application for data collection for the census taker and performing tasks via telephone;
- 10. guidelines for promotional activities;
- 11. a set of examples for workshops;
- 12. a set of sample exam questions for the enumerators;
- 13. examination test for enumerators:
- 14. training presentations;
- 15. list of questions for the census form.

# VII. Selected IT systems and applications supporting the 2021 Census

During the census work, members of the census apparatus used various IT systems and applications. The most commonly used IT tools are described below.

## 1. CORstat\_Census

The CORstat\_Census system was the central link of the IT environment for the implementation of the 2021 Census, concentrating all resources and functions related to the management of tasks of census participants – accountants, dispatchers, telephone consultants and persons monitoring the course and progress of the census campaign. For each user of the system, the scope of available functions and the data space within which they carried out their tasks were defined. CORstat\_Census cooperated with data acquisition systems and applications, collected and distributed to their users data and information related to the implementation of data acquisition processes. Each of the partner systems sent to CORstat\_Census the results of their activities and reported on events relevant for the census.

The system enabled to:

- · monitor the status of the census and report on the progress of the census;
- control the workflow between different data collection channels;
- allocate work to interviewers:
- provide data on the progress of the census of dwellings and persons;
- · handle events related to census duties;
- ensure data flow between census systems;
- manage data availability;
- · determine census statuses.

## 2. Redmine

The Redmine ticketing system was a tool to facilitate problem clarification and communication between different levels of the census apparatus. It also made it possible to use previously developed solutions for persons who encountered a given problem for the first time (access to the knowledge base). It also made it possible to quickly provide all participants with information.

## 3. Call Center System

The Call Centre system was used to handle the Census Hotline and outbound calls to complete the census by computer-assisted telephone interviewing, using an electronic form to record data.

# 4. IC Business Manager

IC Business Manager made it possible to check the load on the Hotline on an ongoing basis. The application allowed to check the number of calls from respondents, the time of waiting for a call from a consultant or an accountant, the time of calls and the number of serving consultants and census enumerators.

The Central Census Bureau, during the census, after analysing the statistics available in the IC Business Manager, made decisions on changes in staffing on the 'Write by phone' line to eliminate excessive waiting times for respondents.

# 5. Applications for users

For the purpose of the 2021 Census, an IT environment was created to enable data collection through the following channels:

- Online self-census, which was carried out by the respondent using an application running in a web browser;
- On-demand telephone census carried out by a telephone enumerator, after the respondent contacted the Hotline using a dedicated application;
- Telephone interview carried out by the census agent using the Call Centre system software;
- Interview carried out by the census agent face-to-face or by telephone using a mobile application on a smart-phone.

### 6. Information Dashboard

In order to ensure access to information on the progress of the census and selected phenomena recorded during it, a dashboard was developed that made statistics, graphs and maps available – on the national level, as well as for individual voivodships, gminas, statistical regions and census districts.

Two versions of the dashboard were prepared for Statistics Poland and voivodship census offices (full version) and for gmina census offices (version with a limited range of data).

At the level of statistical region, the dashboard displayed a map with the location of buildings. Points on the map were displayed in a colour indicating the stage of census completion (e.g. green represented locations where the census had been completed). Additionally, after pointing to a point on the map, detailed address information and census completion statuses were displayed. For multi-dwelling buildings, points were marked in black with a number indicating the number of dwellings in the building. After indicating the building, individual premises were displayed in colours showing the stage of the census realisation, and after indicating the premises, it was possible to read the details concerning the method of the census realisation for the selected address.

Within the dashboard, daily targets were also calculated and made available, i.e. the number of dwellings and persons who should be registered on consecutive days in order to achieve the assumed completeness of the census. Targets were calculated on the nationwide and voivodship level on a daily basis and were the key tool for planning future actions on particular levels of the organization, in order to finally achieve the required completeness of data.

# VIII. Security of processed data in the 2021 Census

## 1. Protection of data collected and compiled by official statistics

Persons performing census work are obliged to observe statistical confidentiality. Before starting work, pollsters were instructed about the nature of statistical confidentiality and the sanctions for breaching it. Pursuant to Article 35aa. of the Act on Official Statistics, from the moment personal data are collected for the purposes of performing tasks specified in the Act, they become statistical data and are covered by statistical confidentiality, with the exception of information contained in the National Official Register of National Economy Entities.

Employees of official statistics, including census enumerators, make a written oath that reads as follows: 'I promise that I will perform my work for the benefit of official statistics with all diligence, in accordance with the professional ethics of a statistician, and that I will keep the individual data learned during their processing in secret from third parties'. The Act on Official Statistics (Articles 54 and 55) provides sanctions for violation of statistical confidentiality in the form of restriction of liberty for up to 3 years, whereas the use of statistical data which an employee of official statistics has become aware of in connection with the performance of work or activities commissioned by the investigator, for the purpose of obtaining a financial or personal benefit, is punishable by imprisonment for up to 5 years.

The data collected during the work on organization and execution of the census, as referred to in Article 11 of the Act on the 2021 Census, shall be processed in accordance with the principles referred to in Article 2 of 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, 31.03.2009, p. 164, as amended).

Taking into account the nature, scope, context and purposes of data processing and the risk of violation of rights or freedoms of natural persons with different probability and seriousness of threat, the Data Controller which is the President of Statistics Poland, has implemented appropriate technical and organizational measures so that the processing of data collected within the framework of the 2021 Census is performed in accordance with the GDPR and legal acts regulating all the issues related to the performance of the 2021Census.

The Statistical Informatics Centre (CIS) is responsible for ensuring security of data collected within the framework of census works processed with the use of ICT systems, as referred to in Art. 13 of the Act on the National Population and Housing Census 2021. CIS ensures also the interoperability of ICT systems referred to in Art. 13 of the Act on the National Census 2021, according to the principles defined in the Regulation of the Council of Ministers of 12 April 2012 on the National Interoperability Framework, as defined in Art. 3 item 21 of the Act on informatization of the activity of entities performing public tasks (Journal of Laws 2020, item 346, 568, 695 and 1517), in a manner ensuring confidentiality, integrity and availability of information, taking into account its authenticity, non-repudiation and reliability.

All personal data processed as part of the census work are confidential and subject to special protection, under the principles set out in the Act on Official Statistics and the Law on Personal Data Protection. Personal data from the time they are collected become statistical data and are covered by statistical secrecy. The principle of statistical secrecy is absolute, perpetual, covers all personal data and does not provide for any exceptions giving the possibility of its abrogation.

Data protection in censuses and all other statistical surveys of official statistics is regulated by the EU GDPR Regulation. Article 5 of the GDPR sets out the principles according to which personal data may be processed. One of them is that confidential data may only be collected and processed for specified and legitimate purposes (Article 5(1b)).

One of these purposes is statistical purpose, pursued in the legitimate public interest through censuses and statistical surveys.

The data collected during the censuses will be used exclusively for statistical studies, compilations and analyses and for updating the operators for statistical surveys conducted by the official statistics services. The data collected as part of the 2021 Census have been anonymised and are further processed in this form.

The disclosure or use of data obtained from the censuses for purposes other than those stated is prohibited under pain of criminal liability.

# 2. Safeguards used by official statistics

The census, similarly to all statistical surveys conducted by Statistics Poland, was carried out in compliance with high security standards, on the basis of modern ICT techniques ensuring, among others, advanced protection against cyber-attacks, and serving the management of information security events. The security tools and procedures used by official statistics meet the highest standards and ensure the legally required protection of the collected information.

In the course of the 2021 Census, security design and management standards such as ISO/IEC 27001 (in the scope of information security system management), ISO/IEC 27002, ISO/IEC 27005 and good network and security design practices, e.g. CERT, IETF/RFC guidelines, have been used.

During the selection of security measures, the identification of potential threats was also carried out in order to select the best technical measures contributing to the minimisation of their occurrence and to develop risk response scenarios.

In all methods used in the 2021 Census, only an interactive form application was used to collect data. The methods for secure login to the census application by respondents used during the 2021 Census were:

- a) Logging in with the use of a national electronic identification node calling the login.gov.pl website, which offered the possibility to authenticate in the census application with the use of electronic identification means, issued by other entities under the electronic identification systems (Trusted Profile, Trusted Profile confirmed through Internet banking). Due to the nature of this method (ensuring full confidentiality of the information entered), once it was successfully used, it was permanently assigned to a given respondent, and subsequent login attempts required its re-use;
- b) Logging in with PESEL number and mother's family name in this case, after the first logging in by the respondent, it was necessary for him/her to define his/her own individual password. If a person completed the form in many work sessions, access to the form during the next login required entering the PESEL number and a password known only to that user this allowed the protection of the data entered by the user:
- c) **Entering the PESEL number as well as the surname** in the 2021 Census was not only used for logging in to the census application, but was also intended to identify the person. Therefore, in this case it fulfilled the function of data protection and security and additionally a validation function. When logging in using this method for the first time, it had to define our own password. This was an additional security measure in a situation where the enumeration was not carried out during a single session (single login), but where there was a need to log in to the form several times. After the final closing of the census application (completion of the census), it was no longer possible to log in to the census form again:
- d) Foreigners without a PESEL number it was necessary to provide an e-mail address and define a password to access the account. An activation link was sent to the email address, which had to be opened in order to activate the account. Persons with this type of account were able to log in repeatedly with their email and password. After the final closing of the census application (completion of the census), it was no longer possible to log in to the census form again.

Respondents who were not able to enumerate themselves using the web form or by phone via the census hotline were enumerated by the enumerators by phone or through a face-to-face interview.

The telephone enumerators called from the following number: 22 828 88 88. Each enumerator had an individual ID and could be verified by the respondent. The identity of the enumerator could be verified using the census hotline by calling 22 279 99 99 or on the website spis.gov.pl using the application for verification of the enumerator from May until the end of the census. In order to efficiently manage and monitor the processes performed within the census, an electronic platform was used which includes systems, subsystems and applications supporting the processes of collecting, processing and making available census data. Data collected by enumerators was transferred through a dedicated, encrypted transmission channel and processed and stored only on the territory of Poland in the protected IT infrastructure of the Polish statistics.

# 3. Principles of personal data processing

The President of Statistic Poland (based at al. Niepodległości 208, 00-925 Warsaw) is the Controller of personal data processed in the 2021 Census.

Personal data are processed for statistical purposes, including organization and conduct of a census referred to in Article 25 (1) (4) of the Act on Official Statistics.

Pursuant to Article 89 GDPR, Article 31 (1) of the Act on the Census 2021, Articles 15–21 RODO do not apply to the processing of personal data for the purpose of conducting a census:

- a) right of access by the data subject;
- b) right to rectification:
- c) right to erasure (right to be forgotten);
- d) right to restriction of processing;
- e) notification obligation regarding rectification or erasure of personal data or restriction of processing;
- f) right to object.

Personal data are processed for statistical purposes, including the conduct of the census referred to in Article 25, paragraph 1, point 4 of the Act on Official Statistics, and for the planning, collection, linkage, evaluation, dissemination and analysis of demographic, social, economic and housing stock data for the lowest levels of data aggregation, at a specified time, in relation to natural persons in the territory of the Republic of Poland, referred to in Article 2, point 1 of the Act on the Census 2021.

Personal data collected as part of the work related to the organization and conduct of the census are processed in accordance with Article 6(1)(c) of the GDPR – processing is necessary for the compliance with a legal obligation incumbent on the controller with regard to Article 28(1) in connection with Article 10(1) and (2) and Article 11(3) of the Census 2021 Act, article 6(1)(e) RODO – processing is necessary for the performance of a task carried out in the public interest or in the exercise of official authority vested in the controller, Article 9(2)(g) GDPR – processing is necessary for reasons of substantial public interest and Article 9(2)(j) GDPR – processing is necessary for archiving purposes in the public interest scientific or historical research purposes or statistical purposes.

The services of official statistics process personal data for statistical purposes, in accordance with the catalogue specified in Article 35b of the Act on Official Statistics. From the time personal data are collected from respondents or from public administration information systems and official registers or non-public information systems for the purpose of performing the tasks defined in the Act on Official Statistics (including the conduct of censuses), they become statistical data and are covered by statistical confidentiality.

As part of the preparatory work for the 2021 Census, personal data were obtained from entities obliged to provide data to the President of Statistics Poland (a detailed list of obliged entities is provided in Appendix No. 2 to the Census 2021 Act).

Only persons authorised by the data controller to process personal data shall participate in the process of personal data processing, observing the necessary knowledge principle.

# IX. Preparation of results in the 2021 Census

## 1. Data processing

The census data processing process consists of several main stages that result in products in the form of specific data sets that are subject to further data processing. The main processes include:

- 1. Acquisition and transforming of register data;
- 2. Collection and preparation of source data;
- 3. Creation of inventory list;
- 4. Creation of so-called Domain Data Sets (DZD);
- 6. Acquisition and processing of field survey data (CAxI data);
- 7. Calculation of the Resultant Census Data Set (WZDS);
- 8. Data analysis and dissemination.

For the processes indicated above, the tools and environment implementing the individual stages have also been defined. The implementation of the census project in the form of phases of collecting, processing, storing, analysing and providing access to census data is carried out using two basic IT systems: OBM – Operational Microdata Base and ABM – Analytical Microdata Base and is consistent with the implemented MPPS Statistical Production Process Model, whereby:

- **OBM** is an IT system supporting census processes, and above all, it is used to integrate data from various sources and calculate the census results. The main processes that are performed in OBM are: data standardization, validation, deduplication and correction of data as well as preparation of sets for the purpose of feeding electronic forms to the census. OBM is responsible for transforming the source data into the resulting census data. The end product of OBM is the resulting set with all the variables to be calculated during the census (WZDS). The end result is exported to ABM;
- ABM is a database that stores anonymised census data in the final version, collected during the census. In the ABM further transformations are performed (mainly derivation of further variables) as well as any statistical analysis and sharing of.

The main data processing processes are described below.

Data acquisition from administrators from central and distributed administrative systems and non-administrative systems according to the established data scope and registers list.

According to the adopted assumptions, the data collection process, both in the case of central and distributed collections, consists of three main stages:

- preparation for the acquisition of data sets;
- · acquisition, transformation and control of data sets;
- transferring the data set for further processing.

In the case of the first stage concerning preparation for data collection, the most important task is to determine the detailed scope of data and the structure of the data set to be collected from information systems on the basis of Annex No. 2 to the Act on the 2021 National Population and Housing Census.

The second stage involves the proper acquisition of the data sets, followed by their formal check, which consists in assessing the compliance of the set with the description, i.e. the metric and the file attached to it describing the set structure, and checking whether the dictionaries of values of individual characteristics have been transferred. The transferred sets are also checked for compliance of the scope of features with the Census Act, and in particular with Annex 2 to the Act.

#### 2. Collection and preparation of the statistical source data.

Once the submitted data set is formally correct, it is transformed into a statistical data set. This includes standardisation of identification-address data, coding with TERYT identifiers, context checking of addresses, deduplication, data conversion. The resulting statistical set is then controlled according to the developed and implemented rules. On the basis of the created set control reports its correctness is assessed. If the set is positively assessed, it is placed, together with metadata, in an IT environment for further processing.

#### 3. Creation of a persons and address-dwelling list.

The persons and address-dwelling list, as mentioned earlier, is the main source of information about the persons to be enumerated and the buildings and dwellings. In addition, it is an essential tool for enumeration management, for checking the completeness of enumerated persons, buildings and dwellings, for authentication, as well as for the flow of information between CAXI channels.

The establishment of an inventory starts with the definition of its structure, i.e. the scope of information describing the survey units. According to the adopted assumptions, the persons and-address-dwelling inventory consists of five, interrelated (relational) tables: Buildings, Dwellings, Persons, CLQ and Telephones. For each person, the most likely residential address is also determined. This address is then paired with the addresses of the dwellings in the address-dwelling list, as a result of which persons are assigned to dwellings. On the basis of the registration data, the basic features concerning demographic characteristics of persons are also calculated, e.g. age, sex, country of birth, country of citizenship and characteristics of dwellings. This information is calculated on the basis of prepared procedures, the so-called algorithms of variables calculation.

The list is subject to analysis and substantive control carried out on the basis of prepared quality indicators covering, among others, the scope of subjects of the lists, assessment of address consistency, assessment of the used data from administrative registers and the degree of integration of the list tables.

#### 4. Establishment of thematic Domain Data Sets.

Initially, twelve domain data sets (DZD) were created. The domain data sets contain characteristics that are derived exclusively from data originating from administrative and non-administrative systems, including statistics:

- Buildings:
- Dwellings;
- Households;
- Families;
- Persons;
- Demographic and social characteristics;
- Disability;
- Socio-economic characteristics;
- Foreigners;
- Migration;
- Economic activity;
- Territorial and Statistical Unit Coding System (KTS).

DZD are derived based on previously developed and implemented feature derivation structures and algorithms. Each of the derived domain sets is additionally checked and corrected according to the developed and implemented rules. Before approval, each domain is subjected to a detailed analysis and quality assessment. After validation, the domain data sets are made available for further processing.

#### 5. Extraction of data from CAxI channels.

This process is carried out by a census application built on the basis of detailed substantive assumptions. After the collected data are imported into the previously developed and implemented structures, they are identified, deduplicated, and then, based on the developed and implemented assumptions, the best result is selected for a given unit of study (person or dwelling). The data from the CAXI channels are subjected to analysis, control and quality assessment. Once validated, the data are transferred to the next stage, which is the generation of the resulting census dataset.

The survey of persons residing in collective living quarters is carried out using a dedicated application with which facility administrators enter data.

On the basis of data from the CAXI channels, an update of the scope of the persons and address – dwellings list is carried out, consisting in the addition to the tables of buildings, dwellings, persons and the CLQs of new units that have appeared in the data from the CAXI channels, and were not in the original inventory.

#### 6. Creation of the Resultant Census Data Set in the Operational Database (OBM).

The resulting Census Data Set (WZDS) on the OBM side is derived on the basis of developed and implemented structures and algorithms of feature derivation. These are both features whose only source of information is data from domain datasets or CAxI feeds and those that are the result of compilation of data from the DZD and CAxI. The subjective scope of individual tables included in the result set, which describe particular units (objects) of the census survey, is determined on the basis of the subjective scope of the respective tables of the persons and address-dwelling inventory, updated with data from the CAxI layers. Once the result set is created, it is subject to control, correction and imputation on the basis of the developed and implemented rules. The result set is also subjected to a detailed analysis and quality assessment based on the developed and implemented quality indicators. An origin file indicating the source of particular feature values is also created. Once the dataset is validated, it undergoes a process of anonymisation based on the developed and implemented assumptions. After anonymisation, the resulting census dataset is exported from OBM to ABM for further processing.

#### 7. Creation of the Resultant Census Dataset in the Analytical Database (ABM).

The Resulting Census Dataset imported from OBM into ABM is supplemented with further features on the basis of developed and implemented algorithms. Once the result set is created, it is subject to control and correction on the basis of developed and implemented rules. It is also subjected to detailed analysis and quality assessment on the basis of developed and implemented quality indicators.

After the set is approved, the census data are disseminated in forms compliant with the adopted policy of publishing census results.

In the final stage, data are also developed for the Eurostat Hub Censuses in the form of so-called Hyper-Cubes on the basis of the structures and dimensions defined by the Commission Implementing Regulation (EU) 2017/881 of 23 May 2017 – structures and dimensions.

## 2. Post – enumeration survey (PSE)

A post – enumeration survey is the primary means of assessing the quality of statistical data.

The PSE used in the 2021 Census consisted of two phases. The first phase of control activities was carried out during the course of the population and housing census and consisted in routine control of the correctness of the work of the enumerators (from the general pool, about 2% of the enumerators were subject to control; random or purposive selection was applied). The main aim of the PSE of the second phase was to estimate the error of coverage both on the scale of the whole country and in the territorial cross-section. By comparing the results

of the PSE with the results of the population and housing census for specific domains it will be possible to obtain information about the completeness of the census and thus to estimate the error rate. Moreover, the PSE will provide information about errors of content in relation to selected characteristics.

The PSE of the second phase was conducted in Poland as a sample survey (in ca. 100 thousand dwellings randomly selected) from 12 November 2021 to 24 November 2021. The sampling frame consisted of dwellings surveyed in the main census with an available telephone number, for which the census was conducted (by means of CAWI, CATI and CAPI methods). The survey unit was the person directly interviewed in the main census (the so-called first respondent). Interviews with respondents were conducted by interviewers of the control survey exclusively by the telephone interview method, using a specially prepared CAPI application. Before the start of the PSE, i.e. between 9 and 10 November 2021, a letter from the President of Statistics Poland informing about the survey was sent to dwellings selected for the control survey.

In the PSE the effort was made to recruit the most experienced and qualified team of statistical interviewers and to obtain a central allocation of addresses for the control survey, thus ensuring separation of territorial areas and guaranteeing that interviewers do not carry out the control survey in their own voivodship.

Respondents could verify the identity of a control survey interviewer by calling the control survey hotline at 22 279 99 99 and in the 'Check the control survey interviewer' application on the https://kontrolny.stat.gov.pl/website.

# 3. Disseminating of the census results

Censuses are a complex undertaking, posing a major organizational challenge due to their importance, scope, and complicated logistics, requiring the implementation of separate procedures in the system of official statistics. Making the census results available is the result of several years of work of a team of experts from many areas of social and political life involved in this undertaking.

Taking into account various user needs, the census results should be made available as soon as possible after the censuses are completed, and the data should be presented at the lowest possible territorial level, while respecting the principles of statistical secrecy.

The results of the censuses will be made available according to schedules publicly accessible to the recipients of information using various forms and tools that will allow the needs, possibilities and preferences of various user groups to be taken into account.

For the 2021 Census, the following catalogue of forms of making result information available will be used:

- news releases the fastest form of making result information available, used to disseminate basic census data;
- database system the basic form of making census results available, understood as a structured set of data and metadata presented in a fixed structure;
- publication a traditional form of making census results available, published in the 'Censuses' publication series, available online and/or in printed form;
- other forms of dissemination (e.g. infographics, dashboards, tweets).

The following catalogue of solutions will be used in terms of tools for making census result information available:

- Local Data Bank;
- Domain Knowledge Database;
- Geostatistical Portal;
- 'Scientist' stand;

- programmes for data transmission to international organizations;
- electronic communication tools social media, e-mail, newsletter, RSS channel.

Apart from providing access to census information with the use of the above-mentioned IT tools – online, the solutions for dissemination of information will also be used through:

- Central Statistical Informatorium;
- network of Voivodship Regional Research Centres;
- Central Statistical Library;
- Statistics Poland Publications Sales Kiosk;
- Statistical Hotline;
- presentation of information on the occasion of various events (e.g. seminars, conferences, meetings).

On the basis of requests made by individual or institutional clients, individual orders will also be carried out.

## X. Promotion and communication in the 2021 Census

Popularization of the 2021 Census was planned as a long-wave activity covering the time of preparatory work for the Census, the period of implementation of the survey and the time of popularization of the results. Intensive popularization of the census was carried out from January to November 2021. Before that, there were activities to popularise the upcoming census and at the same time activities related to preparations for the 2021 Census, i.e. public consultations (November 2016-January 2017), the first trial census (September-October 2019), the second trial census (March-April 2020). The concept of popularization of the 2021 Census assumed reaching with information about the census obligation to the largest possible number of Polish residents and persons residing abroad covered by this obligation. The planned popularization activities were based on an earlier analysis of potential recipients. In the subsequent activities, the target groups for popularization were defined, the communication channels and tools were adjusted, along with the information message, popularization activities were planned and necessary materials for popularization of the census were prepared.

Activities promoting the 2021 Census were carried out on a national, regional and local level, thanks to which information on the census obligation was widely disseminated also on the level of gminas. A direct and indirect target group for the promotional activities was identified. Within the direct group, the residents of Poland (Poles and foreigners) and permanent residents of Poland staying abroad during the census were identified, and the target groups to which the activities were addressed were additionally specified. The target groups included, inter alia, young persons 18+ (pupils, students and persons starting their professional career), persons planning a family and families with children, seniors and persons with special needs. It should be noted, however, that the selection of dissemination channels and tools also took into account other variables characterising the specific target groups, i.e. differentiated access to mass media resulting, for example, from the place of residence or the possibility of using promotion channels and tools in the sanitary regime caused by the COVID-19 pandemic. The indirect target group included the institutional environment (including public administration employees) and persons under 18 years of age who have influence on persons covered by the census obligation. Through activities targeted at the indirect target groups it was possible to spread knowledge about the census obligation and to reach out with information about the census through, for example, educational activities targeted at the youngest, as well as information activities targeted at employees of public administration.

The main objective of the planned dissemination activities was to provide the public with fundamental information about the 2021 Census and to encourage respondents to have an open attitude and to actively participate in the census, in particular to take part in the online self-census. Complementary objectives were also defined, such as introducing the public to the value of the census as a common public interest, communicating the value of using census data in making important decisions in private and professional life, engaging public institutions in informing about the census duty and building awareness of the census duty among respondents.

The campaign to popularize the 2021 Census was carried out under the slogan 'We'll count for Poland', and in the social media there was also #liczysiękażdy [#everyonecounts]. The materials used to popularize the census were visually coherent; the set of rules and principles for the use of colours and logos was defined in the Visual Identity Book of the 2021 Census. The materials used to popularize the census included: radio and TV spots, an instructional film for self-enumeration, animations and educational materials, infographics, leaflets, posters, colouring books. Promotional materials were also produced, which constituted prizes in numerous competitions and were also handed out to respondents who took the census at census sites organised by Statistics Poland and statistical offices. The leading information channel in the campaign was the website https://spis.gov.pl. Activities popularising the census included:

public and commercial media campaigns and social media (radio, press, television and Internet).
 The national campaign in radio and television was carried out in both public media (as part of the public mission) and commercial media. Census-themed programmes and spots were aired from January to November 2021 on the main national broadcasts with the highest viewership and listenership and in the regional broadcasting bands. As part of the public mission, a programme entitled 'Policzymy się dla Polski' [We will

count for Poland] was produced to promote the Census on a national and regional scale. Interviews with Statistics Poland management and census bureau representatives were conducted on radio, television and in the press. Active information activities were also conducted in social media on the Statistics Poland and statistical offices' profiles;

- mailing (including a letter from the President of Statistics Poland to the respondents) and mailings.
  - One of the basic forms of informing about the census, apart from the website and the media campaign, was a letter from the President of Statistics Poland sent to 12 million households in Poland. The letter informed about the beginning of the census, the statutory obligation, the census methods (including the role of the enumerators) and possible sanctions for failing to complete the census. In addition to letters to respondents, Presidential letters were also sent to stakeholders in official statistics, church and religious associations, uniformed services, among others. The letter correspondence was also supplemented by mailing;
- organization of events (conferences, seminars, meetings).
  - The conferences, seminars and meetings were held either remotely or on-site depending on pandemic conditions. The events were targeted at various circles, in particular scientists involved in statistical research, government administration and, thanks to online access, also a wider audience;
- · organization of lotteries and competitions.
  - The promotional lottery of the 2021 Census was conducted from the beginning of the census until 30 June and its aim was to encourage as many respondents as possible to take the online self-census. In the lottery, material prizes were awarded: 480 gift cards worth PLN 1,000 each, 960 gift cards worth PLN 500 each and 16 cars (main prizes). Prizes were drawn in 7 draws. Apart from the lottery, numerous competitions were organized, e.g. a competition for the most digital gmina during the 2021 Census, a competition for teachers for a script of a census-themed lesson;
- an information campaign in the public space.
  - Information about the census also appeared in public space, these included billboards, banners, mobile advertisements and in public transport. In the voivodship cities, exhibitions on the census topics were also organized;
- educational activities.
  - They were implemented among target groups in accordance with the Statistical Education Plan, in particular through educational initiatives i.e.: open day, census night, lessons, seminars, educational games, quizzes, lesson plans;
- involvement of census ambassadors:
- internal information campaign addressed through internal communication channels to staff of official statistics.

The census was also popularized in cooperation with and thanks to the involvement of the employees of the Gmina Census Offices, representatives of national and ethnic minorities and communities speaking a regional language, representatives of the church and religious associations, organizations and associations working on behalf of persons with special needs and seniors, public administration, uniformed services, curatoria, and non-governmental organizations.

In its dissemination activities, the Central Census Office paid a lot of attention to persons with special needs. These activities include, for example, the census form fully translated into the Polish Sign Language, as well as spots and an instructional video, which were also provided with audio description and subtitles. In addition, leaflets were prepared in versions for the visually impaired and those using Braille. A video chat for sign language users was also launched.

Confirmation of the effectiveness of the popularization efforts is provided by the Google Trends report: 'Year in Google search' on topics that gained popularity in 2021. In this report, the census appeared as a search term in 3 lists:

• in 1st place in the 'Topics that were talked about category';

- in 3rd place among the fastest gaining topics in popularity;
- **in 3rd place** in the list of queries starting with the question: 'How' (the question typed into the search engine was 'How to write yourself up online.'

The full summary is available at the following link: <a href="https://trends.google.com/trends/yis/2021/PL/">https://trends.google.com/trends/yis/2021/PL/</a>.

After the main census was completed, dissemination activities focused on the PSE, and in the final stage of dissemination, activities are aimed at promoting the results of the 2021 Census. Dissemination activities of the census results are carried out in accordance with the dates of census publications and planned events.

# **XI. Annexes**

Annex 1: Framework schedule for release of result information from the 2021 Census

No.	Date of availability	Form of availability	Data version	Information scope	Territorial crosssection
1.	January 2022	NEWS RELEASE entitled Census 2021 Preliminary results	preliminary data	population by sex and age (economic groups) number of buildings, number of dwellings, useful floor area of dwellings, methodological notes	administrative division: Poland
2.	January 2022	PUBLICATION entitled National Population and Housing Census 2021 Research methodology and organization	_	information on the legal basis for the Census 2021, data collection methods, organization of data collection and processing, information scope of the census, definition of terms	_
3.	May 2022	PUBLICATION entitled National Population and Housing Census 2021 Report on preliminary results	preliminary data	population by sex and age, country of birth, citizenship (EU countries, non-EU countries), marital status, feminisation rate, population density, number of employed by sex number of occupied and unoccupied dwellings number of rooms useful floor area of dwellings number of buildings with dwellings collective living quarters: number of CLQs by type, methodological notes	administrative bre- akdown: Poland, voivod- ships
4.	May 2022	NEWS RELEASE entitled Population by social characteristics, Census 2021. Population by social characteristics, Census 2021. Preliminary results	preliminary data	population by education level, sex, age methodological notes	administrative bre- akdown: Poland, voivod- ships
5.	June 2022	NEWS RELEASE entitled Equipment of dwellings and buildings with installations and facilities, Census 2021. Preliminary results	preliminary data	Equipment of dwellings and build- ings with installations and technical facilities methodological notes	administrative bre- akdown: Poland, voivod- ships
6.	July 2022	NEWS RELEASE entitled Status of persons on the labour market, Census 2021. Preliminary results	preliminary data	labour market status (employed, unemployed, economically inactive persons) by sex and age group methodological notes	administrative bre- akdown: Poland, voivod- ships
7.	September 2022	DATABASE SYSTEM: Local Data Bank, Geostati- stics Portal	final data	population by sex and age number of buildings and dwellings (occupied, unoccupied)	administrative bre- akdown: Poland, voivod- ships, powiats, gminas statistical breakdown: 1. macro-regions (NUTS 1), regions (NUTS 2), sub- -regions (NUTS 3) 2. statistical breakdown: statistical localities

No.	Date of availability	Form of availability	Data version	Information scope	Territorial crosssection
8.	SeptemberNovember 2022 (successive availability in databases)	DATABASE SYSTEM: Local data Bank, Geostati- stics Portal	preliminary data	population by marital status, country of birth, country of citizenship demographic and social characteristics: persons with disabilities, persons by education level status of persons on the labour market: employed, unemployed, economically inactive collective living quarters: number of CLQs by type, number of persons in the CLQs foreigners in Poland Polish emigrants staying temporarily abroad national – or ethnic structure of the population: national or ethnic affiliation, language used at home families: the number and types of families and families with children households: number of persons per dwelling, family composition characteristics of housing stocks: basic information on dwellings, types of dwelling ownership, age of dwellings and their equipment with installations and technical facilities	administrative bre- akdown: Poland, voivod- ships, powiats (selected range) statistical breakdown: macro-regions (NUTS 1), regions (NUTS 2), subregions (NUTS 3)
9.	November 2022	PUBLICATION entitled Report on the quality of the Census 2021 results	_	evaluation of the quality of the census in terms of the implementation pro- cess and the census results	_
10.	December 2022	Geostatistics Portal	final data	population by sex and age number of dwellings number of buildings	kilometre grid for the variables defined in Commission implementing Regulation (EU) 2018/1799 of 21 November 2018 on the establishment of a temporary direct statistical action for the dissemination of selected topics of the 2021 population and housing census geocoded to a 1 km² grid user-defined aggregates kilometre grid user-defined aggregates

No.	Date of availability	Form of availability	Data version	Information scope	Territorial crosssection
11.	JuneAugust 2023 (successive availability in databa- ses)	DATABASE SYSTEM: BDL, Geostatistics Portal	final data	population by sex, age, marital status demographic and social characteristics: number of persons with disabilities, number of persons by level of education, source of maintenance status of persons on the labour market: employed, unemployed, economically inactive migration stocks: country of birth, country of citizenship foreigners in Poland migration for temporary residence: emigrants by country of residence, age, sex, immigrants staying in Poland temporarily internal migration: population by period of residence, demographic and social structure of migrants families: types of families, number of children households: number of persons, family composition collective living quarters: number of CLQ by type, population housing conditions: type of occupied living quarter (dwellings and other premises not being a dwellings, occupancy status of dwellings, ownership types of dwellings, floor area and number of rooms in dwellings, population density, legal title to occupied dwelling, method of heating dwellings, equipment of dwellings with technical installations, dwellings with dwellings; types of buildings with dwellings, occupancy of the building, equipment of the buildings with technical installations and facilities, useful floor area of the dwellings in the building, number of rooms in the building, ownership of the building, number of dwellings in the building, number of construction	administrative break- down: Poland, voivod- ships, powiats and gminas (for selected variables)  1. statistical breakdown: macro-regions (NUTS 1), regions (NUTS 2), sub- regions (NUTS 3)  2. statistical breakdown: statistical localities (for selected variables) kilometre grid for selec- ted variables as defined in Commission imple- menting Regulation (EU) 2018/1799 of 21 Novem- ber 2018 on the estab- lishment of a temporary direct statistical action for the dissemination of selected topics of the 2021 population and housing census ge- ocoded to a 1 km² grid user-defined aggregates (for selected variables)

No.	Date of availability	Form of availability	Data version	Information scope	Territorial crosssection
12.	September 2023	ANALYTICAL PUBLICATION entitled: Size and demo- graphic, social and economic structure of the Polish popu- lation in the light of Census 2021 results	final data	population size and demographic structure population by country of birth and citizenship immigration and emigration internal migrations population by education level disabled persons source of maintenance national or ethnic affiliation, language used at home religious affiliation collective living quarters: number of CLQs by type, number of persons in the CLQs	administrative bre- akdown: Poland, voivod- ships
13.	September 2023	ANALYTICAL PUBLICATION entitled: Population on the labour market in the light of Census 2021 results	final data	demographic, social and economic characteristics of the labour resources, including: the employed (professional characteristics: employment status, type of activity, occupation performed location of work), the unemployed (including the long-term unemployed), the economically inactive persons (main reasons for inactivity)	administrative break- down: Poland, voivod- ships
14.	September 2023	ANALYTICAL PUBLICATION entitled: Housing conditions in Poland in the light of Census 2021 results	final data	type of occupied living quarters (dwellings and premises not being a dwelling), occupancy status of dwellings, ownership of dwellings, floor area and number of rooms in dwellings, population density, legal title to occupy a dwelling, type of heating and fuels used, technical equipment of dwellings: gas from network and other fuels ownership of dwellings, area and number of rooms in dwellings, population density, legal title to occupied dwelling, method of heating dwellings and types of fuel used, equipment of dwellings with technical with installations: gas supply system, water supply, sewage system, dwellings by type of buildings and age of buildings	administrative break- down: Poland, voivod- ships
15.	September 2023	ANALYTICAL PUBLICATION entitled: Commuting to work in the light of Census 2021 results	final data	territorial differentiation of commuting matrix of work-related population flows showing the links between the gminas from which persons go to work and the gminas in which they work	administrative break- down: Poland, voivod- ships, powiats, gminas
16.	September 2023	ANALYTICAL PUBLICATION entitled: Families in Poland in the light of Census 2021 results	final data	number and size private households, household status, relationship between household members, demographic and social characteristics of the reference person, number and types of family nucleus and families with children, including families with at least one child under 25	administrative bre- akdown: Poland, voivod- ships

No.	Date of availability	Form of availability	Data version	Information scope	Territorial crosssection
17.	March 2024	Census Hub	final data	data as defined in Commission Regulation 2017/712 of 20 April 2017 on the establishing the reference year and the programme of the statistical data and metadata for population and housing censuses provided for by Regulation (EC) No 763/2008 of the European Parliament and of the Council and Council Regulation (EC) 263/2008 and Commission Regulation 2018/1799 of 21 November 2018 on establishing a temporary direct action in the field of statistics for the dissemination of selected topics of the 2021 population and housing census geocoded to a 1 km² grid	

## Annex 2. List of questions for the electronic form of the 2021 Census

PER	SO	NAL DATA
Plea	ise	complete the following information
		last name
		first name
		middle name
		PESEL number
		sex
		date of birth
EST	ABL	LISHING A PERSON'S HOME ADDRESS
1.	W	here did you live on 31 March 2021, at 24.00 hours?
		in Poland
		Please provide the address of:
		place
		street building no.
		dwelling no.
		abroad
		Please provide:
		country of residence
		year of departure from Poland month of departure (for 2020 only)
		last place of residence in Poland before departure (place, street, building and dwelling number – select
		as in item a)
2.	На	ave you lived in:
		a dwelling/a single-family house (also applies to clergy houses and diocesan houses)
		premises other than a dwelling (e.g. utility room, basement, barrack, caravan, etc.)
		collective living quarters (e.g. social welfare home/nursing home, single mother's home, student dormi-
		tory, convent, sheltered training dwellings, etc.)
3.	Is	the address provided a permanent or temporary residence address?
		permanent
		temporary
4.	Н	ow long have you lived at the provided address?
		less than one year
		one year
		one month
		one year or more

5.	What was your permanent residence?
	$\square$ at a different address in Poland
	place
	street
	building no.
	dwelling no.
	□ abroad
PER	SONS IN A DWELLING/PREMISES OTHER THAN A DWELLING
1a.	On 31 March 2021, at 24.00 hours, were there any other persons also living at this address?
	□ yes
	□ no
2a.	Please indicate the number of this persons, not including yourself.
	Please add all persons who on 31 March 2021, at 24.00 hours, lived at the following address.
	□ last name
	□ first name
	□ middle name (if applicable)
	□ PESEL (National Identification Number)
	□ date of birth
	Li date of birth
4a.	Is the address provided a permanent or temporary residence address?
	□ permanent
	□ temporary
5a.	How long has this person stayed at the address provided?
	□ less than one year
	one year
	one month
	$\square$ one year or more
6a.	What is a permanent address of residence of this person?
	□ at a different address in Poland
	□ abroad
7a.	Please state whether all persons staying on 31 March 2021, at 24.00 hours at this address were added.
	□ yes
	□ no
DFD	SONS IN COLLECTIVE LIVING QUARTERS
	On 31 March 2021, at 24.00 hours, did other members of your family also live at this address?
	□ yes
	□ no
2b.	Please indicate the number of this persons, not including yourself.

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3b.	Please add all persons in your family who on 31 March 2021, at 24.00 hours, also lived at the following address.
	□ last name
	☐ first name
	□ middle name (if applicable)
	□ PESEL (National Identification Number)
	□ sex
	□ date of birth
4b.	Is the address provided a permanent or temporary residence address?
	□ permanent
	□ temporary
5b.	How long has this person stayed at the address provided?
	$\square$ less than one year
	one year
	one month
	□ one year or more
6b.	What is a permanent address of residence of this person?
	at a different address in Poland
	□ abroad
7b.	Please state whether all members of your family staying on 31 March 2021, at 24.00 hours at this address were added.
	□ yes
	□ no
PER	SONS RESIDING ABROAD
1.	On 31 March 2021, were there any persons registered at this address who were not staying here and were abroad?
	□ yes
	□ no
	☐ I do not know
2.	Please add all persons who on 31 March 2021 were registered at the address below, but did not stay here and were abroad.
	□ last name
	☐ first name
	□ sex
	□ year of birth (if known)
3.	Please provide the current country of residence of the person
	□ country of residence (list)
	☐ I do not know the country of residence of this person

4.	Please advise the date the person moved abroad
	<ul><li>□ year of departure from Poland</li><li>□ month of departure from Poland (for 2020)</li></ul>
5.	Please indicate the last place of residence of the person before moving abroad  □ at the address (the address you entered at the beginning shall be displayed)  □ at a different address in Poland  □ I do not know where this person lived before going abroad
6.	Do you have any information about this person, e.g. country of birth, country of citizenship, marital status, education, labour market status (at least one of those listed)?  ☐ yes ☐ I do not know
7.	Have all persons registered at this address and residing abroad been added?  ☐ yes ☐ no
	IILY RELATIONSHIPS
For 1. 2. 3.	each person, please indicate parents (including adoptive parents) and spouse (or partner).  Spouse/partner (list of persons to indicate spouse/partner)  Father (list of persons to indicate father)  Mother (list of persons to indicate mother)
DW	ELLING QUESTIONNAIRE
1.	Please indicate who is the owner of the dwelling  natural person/persons (also applies to joint ownership, e.g. conjugal) housing cooperative (private dwelling) housing cooperative (tenant dwelling) gmina State Treasury company public building societies other
2.	The dwelling is occupied by  □ at least one person who owns a dwelling or a part of it □ at least one person with a cooperative right (ownership or tenancy) to the dwelling □ person(s) renting the dwelling □ at least one person subletting the whole dwelling or a part of it (also applies to a lease of a part of the dwelling) □ other
3. 4.	Please provide the total useful floor space of the apartment (in m²) Please provide the number of bedrooms and kitchens with daylight, i.e. (each room of at least 4 m²)

<b>5.</b>	Please advise the main method of heating the dwelling
	□ supply system
	$\square$ a heat source supplying one multi-dwelling building
	□ individual central heating
	☐ furnace(s)
	□ other
6.	Please provide the main type of fuel or energy source used to heat the dwelling
	☐ hard coal – eco-pea coal
	□ hard coal – blocks
	☐ hard coal – nut coal
	□ hard coal – pea coal
	☐ hard coal – coke breeze
	□ hard coal – billets
	☐ hard coal – hard coal briquettes
	☐ hard coal – nthracite
	□ hard coal – other
	□ brown coal – brown coal briquettes
	□ brown coal – other
	□ natural gas
	□ liquid gas – propane-butane, LPG
	□ liquid gas – propane
	□ biogas
	☐ fuel oil
	□ bio-oil
	□ electricity
	□ wood – logs
	□ wood – chips
	□ wood – particles
	□ wood – sawdust
	□ wood – pellets
	□ wood – billets
	□ wood – shavings
	□ wood – wood granulate
	□ wood – other
	□ biomass from agricultural production – straw
	□ biomass from agricultural production – cereal grains
	□ biomass from agricultural production – corn
	□ biomass from agricultural production – other
	□ solar energy – photovoltaic panels/installations
	□ solar energy – solar collectors/installations
	$\square$ energy obtained from the environment – wind power
	☐ energy obtained from the environment – hot springs

	<ul> <li>□ energy obtained from the environment – heat pump</li> <li>□ energy obtained from the environment – other (excluding solar energy)</li> <li>□ other – peat</li> <li>□ other – coke</li> <li>□ other – waste (rubbish)</li> <li>□ other – petrol</li> </ul>
	□ other – gas oil □ other
7.	Do you use renewable energy sources to heat your home?  ☐ yes ☐ no
8.	Please indicate the type of renewable energy source used  □ solar energy – photovoltaic panels/installations □ solar energy – solar collectors/installations □ energy obtained from the environment – wind power □ energy obtained from the environment – hot springs □ energy obtained from the environment – heat pump □ energy obtained from the environment – other □ other
9.	Is the dwelling located in a multi-dwelling building?  ☐ yes ☐ no
BUII	LDING DESCRIPTION
10.	Please provide the details of the owner of the building where your dwelling is located:    natural person   housing cooperative   gmina   State Treasury   Company   public building societies   other   building is jointly owned
11.	Please provide the year when the building was placed in service  ☐ year (if unknown, provide approximate date)  ☐ under construction
12.	Please indicate whether:  ☐ the building is supplied with water  • from a water supply network  • from a well  • none

	$\ \square$ wastewater is discharged from the building to		
	<ul> <li>sewerage network</li> <li>septic tank or a household sewage treatment systems</li> <li>none</li> </ul>		
	<ul> <li>not applicable gas is supplied to the building</li> <li>from the gas network</li> <li>none</li> </ul>		
PER	RSONAL QUESTIONNAIRE		
1.	What is your country of birth (taking into account current borders)?		
	□ Polish		
	□ other – country of birth ( <i>list</i> )		
2.	What is your country of citizenship?		
	□ Polish		
	□ other – country of citizenship (list)		
	☐ I am not a citizen of any country		
3.	Where did you live one year ago (31 March, 2020)?		
	$\square$ at the same address where I currently live		
	$\square$ at a different address in the same place where I currently live		
	☐ in another place in Poland:		
	Specify this place (list – place, voivodship, powiat, gmina) Specify how long you lived/resided there:		
	<ul> <li>up to 3 months (inclusive)</li> <li>over 3 months to 12 months</li> <li>12 months and more</li> </ul>		
	Year of arrival in/return to the place of current residence		
	□ abroad:		
	Country name (list of countries) Specify how long you lived/resided there:		
	• up to 3 months (inclusive)		
	<ul> <li>over 3 months to 12 months</li> <li>12 months and more</li> </ul>		
	Year of arrival in/return to Poland		
4.	How long have you lived in the place of your current residence?		
	How long have you lived in (name of place)?		
	$\ \square$ since birth (i.e. continuously or the breaks in residence were less than one year)		
	☐ I arrived/returned before 2011		
	$\square$ I arrived/returned in the years 2011–2021 from another place in the country		
	The place of previous residence Year of arrival/return		
	☐ I arrived/returned in the years 2011–2021 from abroad		
	Country of residence Year of arrival/return		

5.	Have you ever stayed abroad for at least one year?
	□ yes
	The year of arrival in/return to Poland
	Name of the previous country of residence – refers to the last stay (list of countries)
	□ no
DEN	MOGRAPHIC AND SOCIAL CHARACTERISTICS
6.	What is your marital status?
	□ single
	□ married
	□ widowed
	□ divorced
7.	Are you in an informal relationship with another person?
	☐ yes, we live together and jointly maintain a household
	☐ yes, we live separately
	□ no
	$\square$ I don't want to answer this question
8.	What is your highest attained level of education?
	□ tertiary education with an academic degree of at least doctorate
	☐ tertiary education with a master's degree, master's degree in engineering or equivalent
	□ tertiary education with a bachelor's (licentiate), engineer's, or equivalent degree
	□ College graduation diploma
	□ post-secondary education
	☐ general secondary education
	□ vocational secondary education
	□ basic vocational/stage I sectoral vocational education
	□ lower-secondary (gimnazjum) education
	□ primary
	□ incomplete primary or no school
9.	What is your nationality?
<b>7.</b>	(Nationality should be understood as national or ethnic affiliation and should not be confused with citizen
	ship)
	□ Polish
	☐ Belarusian
	□ Czech
	□ Karaim
	☐ Lithuanian
	□ Lemko
	□ German
	□ Armenian
	□ Romany
	□ Russian

	□ Slovak □ Tatar □ Ukrainian □ Jewish	
	□ other (specify) (list of nationalities edit box)	
10.	Do you also have a sense of affiliation to another nation or ethnic community?  ☐ yes (specify)  (list of nationalities edit box)  ☐ no, I do not	
11.	What language(s) do you usually speak at home?  □ only Polish □ Polish and language(s) other than Polish (please specify) (list of languages edit box; possibility to indicate up to 2 non-Polish languages) □ only language(s) other than Polish (please specify) list of languages edit box; possibility to indicate up to 2 non-Polish languages	
12.	<ul> <li>What religious denomination (church or religious association) do you belong to?</li> <li>I belong to a denomination: <ul> <li>Roman Catholic Church (Catholic Church – Latin rite)</li> <li>Orthodox Church</li> <li>Jehovah's Witnesses</li> <li>Evangelical Church of the Augsburg Confession</li> <li>Greek Catholic Church (Catholic Church – Byzantine-Ukrainian rite)</li> <li>Pentecostal Church</li> <li>Old Catholic Mariavite Church</li> <li>other (specify which) <ul> <li>(list of churches and religious associations edit box)</li> </ul> </li> <li>I do not belong to any religious denomination</li> <li>I do not want to answer this question</li> </ul> </li> </ul>	
13.	Do you have a limited ability to perform daily activities due to health problems lasting 6 months or longer?  □ no, I do not have any limitations □ yes, moderately limited □ yes, severely limited □ yes, totally limited – I am not able to perform daily activities □ I do not want to answer this question	
14.	Please indicate your current group of medical conditions that cause difficulty in performing daily activities damage and diseases of the locomotive (musculoskeletal) system damage and diseases of the visual system damage and diseases of hearing cardiovascular diseases neurological diseases other conditions do not want to answer this question	

15.	Which of the indicated groups of medical conditions is the main cause of your perceived limitations/difficulties?
	$\square$ damage and diseases of the locomotive (musculoskeletal) system
	$\square$ damage and diseases of the visual system
	☐ damage and diseases of hearing
	□ cardiovascular diseases
	□ neurological diseases
	□ other conditions
	$\square$ I do not want to answer this question
16.	Do you have a valid certificate of disability, degree of disability, incapacity for work or registered disability?
	□ no
	□ yes
	I have a:
	certificate of disability issued to persons under 16 years of age
	<ul> <li>a person with a minor degree of disability, partial inability to work, recommendation for occupatio- nal re-training, disability class III, permanent or long-term inability to work in an agricultural holding without the right to the nursing benefit,</li> </ul>
	<ul> <li>a moderate degree of disability, total inability to work, or disability class II,</li> </ul>
	• a considerable degree of disability or total inability to work and function independently, or inability to
	function independently, or disability group I, or permanent or long-term inability to work in an agricultural holding while being entitled to the nursing benefit.
FCO	
	NOMIC ACTIVITY
	erforming or having a job
1/a.	Did you do any paid work or helped in conducting family economic activity without contractual pay in the week of 25–31 March 2021
	□ yes
	□ no
17b.	. Were you employed but temporarily did not work due to leave (including holiday, maternity, or parental leave), illness, care leave, bad weather, etc. during the reference week?
	□ yes
	□ no
II. Jo	ob search, search period and job availability
17c.	Were you actively seeking work in the period between 1 and 30 March 2021?
	□ yes
	$\square$ no, because I had already found a job and was waiting for it to start
	□ no
17d.	. Could you take up a job in a period between 1 and 15 April 2021?
	□ yes
	□ no
17e.	g. Period of active, continuous job search
	□ up to and including 12 months
	□ more than 1 year up to and including 2 years

no   III. Reasons for not taking up a job   17f. Please indicate the primary reason for your inability to take up a job between 1–15 April 2021   continuing your education as a student at school or university   caring for a child or an adult   health condition that does not allow the person to work   other reasons   17h. Please give the main reason for not seeking a job   disability or retirement pension/capital income (stocks, bonds, property)   continuing education as a student at school or university   other reason   earing for a child or an adult   health condition that does not allow the person to work   exhausting all possible options for finding a job   other reason   IV. Main job characteristics   18. What was your occupation?   From the list, select the occupational group containing the occupation that you perform.   If you have difficulty identifying a group of occupations, select the last item on the abbreviated list itions 'other occupation; I do not know'.   19. Please state the location of your main job:   in Poland   eat an address other than the place of residence specify the place from the list (paying attention to voivodship, powiat and gmina)   if available, enter the street – selection from a list (optional)   if the name of the place is unknown, choose the answer 'I do not know the place of work', and cate the voivodship of the place of work' and cate the voivodship of the place of work' and the place of residence eat the voivodship of the place of work' and cate the voivodship of the place of work' and cate the voivodship of the place of work work eat the place of residence	
III. Reasons for not taking up a job  17f. Please indicate the primary reason for your inability to take up a job between 1–15 April 2021    continuing your education as a student at school or university   caring for a child or an adult   health condition that does not allow the person to work   other reasons  17h. Please give the main reason for not seeking a job   disability or retirement pension/capital income (stocks, bonds, property)   continuing education as a student at school or university   other reason   caring for a child or an adult   health condition that does not allow the person to work   exhausting all possible options for finding a job   other reason  17. What in job characteristics  18. What was your occupation?   From the list, select the occupational group containing the occupation that you perform.   If you have difficulty identifying a group of occupations, select the last item on the abbreviated list tions 'other occupation; I do not know'.  19. Please state the location of your main job:   in Poland   at an address other than the place of residence specify the place from the list (paying attention to voivodship, powiat and gmina)   if available, enter the street – selection from a list (optional)   if the name of the place is unknown, choose the answer 'I do not know the place of work', and cate the voivodship of the place of work   at the place of residence	
<ul> <li>17f. Please indicate the primary reason for your inability to take up a job between 1-15 April 2021</li></ul>	
continuing your education as a student at school or university caring for a child or an adult health condition that does not allow the person to work other reasons  17h. Please give the main reason for not seeking a job disability or retirement pension/capital income (stocks, bonds, property) continuing education as a student at school or university other reason caring for a child or an adult health condition that does not allow the person to work exhausting all possible options for finding a job other reason  IV. Main job characteristics  18. What was your occupation? From the list, select the occupational group containing the occupation that you perform. If you have difficulty identifying a group of occupations, select the last item on the abbreviated list tions other occupation; I do not know.  19. Please state the location of your main job: in Poland at an address other than the place of residence specify the place from the list (paying attention to voivodship, powiat and gmina) if available, enter the street – selection from a list (optional) if the name of the place is unknown, choose the answer 'I do not know the place of work', and cate the voivodship of the place of work at the place of residence	
<ul> <li>□ caring for a child or an adult</li> <li>□ health condition that does not allow the person to work</li> <li>□ other reasons</li> <li>17h. Please give the main reason for not seeking a job</li> <li>□ disability or retirement pension/capital income (stocks, bonds, property)</li> <li>□ continuing education as a student at school or university</li> <li>□ other reason</li> <li>• caring for a child or an adult</li> <li>• health condition that does not allow the person to work</li> <li>• exhausting all possible options for finding a job</li> <li>• other reason</li> <li>IV. Main job characteristics</li> <li>18. What was your occupation?         From the list, select the occupational group containing the occupation that you perform.         If you have difficulty identifying a group of occupations, select the last item on the abbreviated list tions 'other occupation; I do not know'.</li> <li>19. Please state the location of your main job:         □ in Poland</li> <li>• at an address other than the place of residence specify the place from the list (paying attention to voivodship, powiat and gmina) if available, enter the street - selection from a list (optional)               if the name of the place is unknown, choose the answer 'I do not know the place of work', and cate the voivodship of the place of work</li></ul>	
<ul> <li>□ health condition that does not allow the person to work</li> <li>□ other reasons</li> <li>17h. Please give the main reason for not seeking a job</li> <li>□ disability or retirement pension/capital income (stocks, bonds, property)</li> <li>□ continuing education as a student at school or university</li> <li>□ other reason</li> <li>• caring for a child or an adult</li> <li>• health condition that does not allow the person to work</li> <li>• exhausting all possible options for finding a job</li> <li>• other reason</li> <li>IV. Main job characteristics</li> <li>18. What was your occupation?         From the list, select the occupational group containing the occupation that you perform.         If you have difficulty identifying a group of occupations, select the last item on the abbreviated list tions 'other occupation; I do not know'.</li> <li>19. Please state the location of your main job:         □ in Poland</li> <li>• at an address other than the place of residence             specify the place from the list (paying attention to voivodship, powiat and gmina)             if available, enter the street – selection from a list (optional)             if the name of the place is unknown, choose the answer 'I do not know the place of work', and cate the voivodship of the place of work</li> <li>• at the place of residence</li> </ul>	
□ other reasons  17h. Please give the main reason for not seeking a job □ disability or retirement pension/capital income (stocks, bonds, property) □ continuing education as a student at school or university □ other reason • caring for a child or an adult • health condition that does not allow the person to work • exhausting all possible options for finding a job • other reason  IV. Main job characteristics  18. What was your occupation? From the list, select the occupational group containing the occupation that you perform. If you have difficulty identifying a group of occupations, select the last item on the abbreviated list tions 'other occupation; I do not know'.  19. Please state the location of your main job: □ in Poland • at an address other than the place of residence specify the place from the list (paying attention to voivodship, powiat and gmina) if available, enter the street – selection from a list (optional) if the name of the place is unknown, choose the answer 'I do not know the place of work', and cate the voivodship of the place of work • at the place of residence	
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<ul> <li>□ other reason         <ul> <li>caring for a child or an adult</li> <li>health condition that does not allow the person to work</li> <li>exhausting all possible options for finding a job</li> <li>other reason</li> </ul> </li> <li>IV. Main job characteristics</li> <li>IV. What was your occupation?         <ul> <li>From the list, select the occupational group containing the occupation that you perform. If you have difficulty identifying a group of occupations, select the last item on the abbreviated list tions 'other occupation; I do not know'.</li> </ul> </li> <li>IP Please state the location of your main job:         <ul> <li>□ in Poland</li> <li>at an address other than the place of residence specify the place from the list (paying attention to voivodship, powiat and gmina) if available, enter the street – selection from a list (optional) if the name of the place is unknown, choose the answer 'I do not know the place of work', and cate the voivodship of the place of work</li> <li>at the place of residence</li> </ul> </li> </ul>	
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<ul> <li>other reason</li> <li>IV. Main job characteristics</li> <li>18. What was your occupation?         From the list, select the occupational group containing the occupation that you perform.         If you have difficulty identifying a group of occupations, select the last item on the abbreviated list tions 'other occupation; I do not know'.</li> <li>19. Please state the location of your main job:         <ul> <li>in Poland</li> <li>at an address other than the place of residence specify the place from the list (paying attention to voivodship, powiat and gmina) if available, enter the street – selection from a list (optional) if the name of the place is unknown, choose the answer 'I do not know the place of work', and cate the voivodship of the place of work</li> <li>at the place of residence</li> </ul> </li> </ul>	
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<ul> <li>if available, enter the street – selection from a list (optional)</li> <li>if the name of the place is unknown, choose the answer 'I do not know the place of work', and cate the voivodship of the place of work</li> <li>at the place of residence</li> </ul>	
if the name of the place is unknown, choose the answer 'I do not know the place of work', and cate the voivodship of the place of work  • at the place of residence	
<ul><li>cate the voivodship of the place of work</li><li>at the place of residence</li></ul>	d than ind
at the place of residence	i tileli illai
·	
no permanent location	
□ outside Poland	
work at a permanent location in another country – select a country from the list	
<ul><li>no permanent location</li><li>unknown country</li></ul>	
□ no permanent location	
20. What was the predominant activity of the institution/company that was your main job?	
non-agricultural activities, select the kind of activity from the list of activities.	
□ agricultural activity, indicate whether the work was performed:	
<ul> <li>on a private agricultural farm (owned by a natural person)</li> <li>on an agricultural farm owned by a legal person or an organizational unit without legal per</li> <li>outside an agricultural farm</li> </ul>	

21.	Did you work as:  ☐ an employee (paid worker) of a public institution or a private employer  ☐ self-employed person     • employing paid workers (employer)     • not employing paid workers  ☐ unpaid family worker  ☐ a trainee/intern	
	□ person working in another capacity (e.g. member of a production or agricultural cooperative)	
Eco 22.	conomic activity in the questionnaire of a person staying abroad for 12 months or more.	
23.	What was your occupation in your main job?	
	<ul> <li>□ From the list, select the occupation group containing the occupation that you perform.</li> <li>If you have difficulty identifying the occupation group, select the last item 'other occupation; I do not know' in the list of occupations</li> <li>□ I don't have any knowledge about it</li> </ul>	
24.	What kind of activity is conducted by the institution (company) that was your main job?	
	□ public administration and defence; education; human health and social work □ industry, manufacturing	
	$\square$ agriculture, forestry, hunting and fishing	
	□ wholesale and retail trade; repair of motor vehicles	
	<ul> <li>professional, scientific and technical activities; administrative and support service activities</li> <li>transportation and storage, accommodation and food service activities, information and communication, financial and insurance activities, real estate activities</li> </ul>	
	<ul> <li>□ construction</li> <li>□ electricity, gas, steam, hot water and air conditioning manufacturing and supply; water supply, sewerage,</li> </ul>	
	waste management and remediation activities	
	□ arts, entertainment and recreation	
	<ul><li>□ mining and quarrying</li><li>□ other activities</li></ul>	
	☐ I don't have any knowledge about it	
25.	Have you worked as:	
	□ employed by a public institution or private employer	
	□ self-employed with employees (employer)	
	□ self-employed without employees □ other	
	□ other □ I don't have any knowledge about it	

#### Appendix 3. List of questions for the electronic form of the 2021 Census for collective living quarters

#### I. Questionnaire on CLQs

# 1. Please confirm or complete the address:

- Voivodship
- Powiat
- Gmina
- Town
- Street
- Building number
- Dwelling number

#### Please confirm or select the type of collective living quarter from the dictionary.

(If the facility type is not listed, indicate the response 'other enter what' and enter the prevailing facility type in the text box).

# 3. Please confirm or enter the name of the collective living quarter.

# 4. Please enter the number of persons staying in the collective living quarter as of 31 March 2021.

- a) total
- b) of which number of women

# 5. Please choose the form in which you would like to provide information about the persons staying at the facility

- a) entering data about persons in the application
- b) submission of a dataset (dataset structure available under the question and on the census page in the tab for CLQs)

# II. Individual questionnaires for persons in CLQS

Please complete the following information for all persons who resided at the address (facility address displayed automatically) on March 31, 2021 at 24.00.

Order number of a person in CLQ

#### 1. PESEL number

- a) PESEL number
- b) Child without PESEL number
- c) Foreigner without allocated PESEL number
- d) No information on PESEL number

# 2. No PESEL number (foreigner or child without PESEL number)

- a) Last name
- b) First name
- c) Middle name
- d) Sex
  - man
  - woman
- e) Date of birth
  - day
  - month
  - year

# 3. Residence status/character

- a) permanent
- b) temporary

# 4. Period of residence

- a) up to 3 months
- b) from 3 months to 1 year
- c) over year or more
- 5. Please indicate the number of residents for whom information was provided in the collection.
  - a) number of persons ......
- 6. Have all the persons living on March 31, 2021 at 24.00 at this location been added?
  - a) ves
  - b) no, I am completing the data
  - c) no
- 7. Please provide a reason for not providing data on all residents of the facility.
  - a) SARS-COV-2 epidemic situation
  - b) no data available for the remaining residents of the facility to be enumerated
  - c) other
    - please specify the reason.

#### Appendix 4. List of questions for the post – enumeration survey (PSE)

#### **Probing questions**

- 1. Do I talk to Mr/Mrs (name)
  - yes → interviewer authenticates the person, i.e. asks him/her to provide his/her date of birth.
  - no → interviewer asks question no. 2
- 2. Would there currently be an opportunity to speak with you (respondent's name)?
- 3. On March 31, 2021, did you live at (Interviewer provides the address of the dwelling drawn for the follow-up survey where he/she is conducting the survey)?
  - yes
  - no
- 4. Did you personally provide answers to the census questions?
  - yes, in person
  - yes, but with the participation of others
  - no, the answer was given by someone else
  - I was not interviewed

#### **Home inspection questions**

- 1. How was the census conducted in this dwelling?
  - using a web application (online self-reporting)
  - by phone
  - directly

If the census was conducted using several methods, the method that allowed to successfully complete the census must be stated.

- 2. Did the census enumerator introduce himself/herself and inform you of options for verifying his/her identity?
  - yes
  - no
  - I don't remember
- 3. Did the census enumerator presented the purpose of the contact?
  - yes
  - no
  - I don't remember
- 4. Did the census enumerator answer your questions completely?
  - I had no questions
  - yes
  - no
  - I don't remember
- 5. Were there any other persons living at this address on March 31, 2021 at 24.00?
  - yes
  - no

#### 6. Please indicate how many persons lived at this address as of March 31, 2021 at 24.00

• number of persons .....

Provide the number of persons to the best of your knowledge.

# 7. Please list all those persons who lived at this address on March 31, 2021, and who were enumerated jointly with you

It concerns only persons for whom a personal form was completed as part of a joint interview, i.e. those who expressed a wish to be interviewed together with you.

- surname
- · first name
- · second name
- Date of birth (day, year, month or year if full date of birth is not known)

# 8. Did you list all the persons who were interviewed with you (for whom a personal form was completed)?

- yes
- no

# **Individual form questions**

Questions are as of March 31, 2021, and apply to the first respondent being interviewed.

- 1. Surname and first name
- 2. Date of birth: day month year
- 3. Was the address you indicated as your address of residence on March 31, 2021 your permanent or temporary residence address?
  - permanent
  - temporary

# 4. What is your highest attained level of education?:

Determine the highest level of education completed – by March 31, 2021, regardless of the form of education (full-time, part-time, evening, weekend, extramural/intramural, distance learning, correspondence) at home or abroad.

- tertiary education with at least a doctoral degree
- tertiary education with a master's degree, master's degree in engineering or equivalent
- tertiary education with a bachelor's, engineer's or equivalent degree
- · college graduation diploma
- post-secondary education
- general secondary education
- vocational secondary education
- basic vocational/stage I sectoral vocational education
- lower-secondary education (gimnazjum)
- primary
- incomplete primary or no school education.

#### 5. What is your nationality?

Two questions about nationality (national-ethnic affiliation) are asked.

Nationality should be understood as national or ethnic affiliation – and should not be confused with citizenship.

- Polish
- Belarusian

- Czech
- Karaim
- Lithuanian
- Lemko
- German
- Armenian
- Roma
- Russian
- Slovak
- Tatar
- Ukrainian
- Jewish
- other (specify)
   (list of nationalities with the option of text entry)

# 6. Do you also feel a sense of affiliation to another nation or ethnic community?

yes (please specify)(list of nationalities with the option of text entry)

• no. I don't

#### Questions about the dwelling

he questions refer to the dwelling that was indicated as the first respondent's home address. The questions, as in the census, are as of March 31, 2021 at 24.00.

# 7. Please indicate who is the owner of the dwelling:

- natural person(s) (also applies to joint ownership, e.g. conjugal)
- housing cooperative (private dwelling)
- a housing cooperative (tenant dwelling)
- gmina
- State Treasury
- company
- public building societies;
- other

#### 8. The dwelling is occupied by

- at least one person who owns a dwelling or part of it
- at least one person with a cooperative right (ownership or tenancy) to the dwelling
- person(s) renting the dwelling
- at least one person subletting the whole dwelling or a part of it (also applies to a lease of a part of the dwelling)
- other.

The question may be answered with maximum three answers, depending on the ownership of the dwelling you have selected (question: Please indicate who is the owner of the dwelling).

# Attachment 5. Typology of the collective living quarters to be surveyed

CLQ category	Category description
EDUCATION AND WORK	<ol> <li>Student dormitories operated by universities, private student dormitories, assistant lecturers' dormitories including student dormitories operated in buildings owned by private investors, aparthotels and condo hotels offering dormitories.</li> <li>Workers' hotels including dwellings predominantly devoted to provide accommodation for workers.</li> </ol>
FOSTER CARE SYSTEM AND FACILITIES FOR CHILDREN AND YOUNG PERSONS WITH SPECIAL EDUCATIONAL NEEDS	<ol> <li>Facilities from the foster care system allowing temporary residence, including: emergency shelters, family emergency shelters, intervention pre-adoption centres, adoption and care centres, including homes for young children converted into care and educational facilities.</li> <li>Institutional foster care in the form of care and educational institution of socialization and family type, including: children's homes, regional care and therapy centres and children's villages, including family support centres and child and family care institutions.</li> <li>Family foster care in the form of a care and educational institution of a family type, including children's villages, excluding foster families.</li> <li>Establishments for children and young persons with special educational needs, including: youth socio-therapy centres, special purpose school and educational centres, special purpose educational centres and revalidation-educational centres, including dormitories attached to these establishments, as well as care and educational-therapeutic centres, including coordination-rehabilitation-care centres and school-educational centres performing the functions of a centre coordination-rehabilitation-care.</li> </ol>
TREATMENT AND CARE	<ol> <li>Social assistance homes for the elderly, including military retirement homes.</li> <li>Social assistance homes for the chronically ill suffering from somatic diseases</li> <li>Social assistance homes for the chronically ill suffering from mental diseases</li> <li>Social assistance homes for adults with intellectual disabilities.</li> <li>Social assistance homes for children and youth with intellectual disabilities.</li> <li>Family social assistance homes for persons requiring assistance due to age – homes for the elderly.</li> <li>Family social assistance homes for persons requiring assistance due to disability.</li> <li>Care homes in the form of aparthotels and condo hotels.</li> </ol>
FACILITIES OF RELIGIOUS INSTITUTIONS	<ol> <li>Monastic houses, monasteries and congregations of clergy persons (including habitless).</li> <li>Houses for students of major seminaries and theological colleges.</li> </ol>
TEMPORARY SHELTER	<ol> <li>Facilities for the homeless, including: shelters, shelters with care places for persons waiting for a place in a social welfare home, night shelters, warming centres (if located in buildings).</li> <li>Facilities for caregivers with children or pregnant women, including: with minor children and pregnant women, shelters for victims of domestic violence, accommodation for minor parents (including hotels, motels, hostels for these persons).</li> <li>Crisis intervention centres and hostels offering accommodation at such centres for the homeless, pregnant women, victims of domestic violence.</li> <li>Centres for foreigners.</li> </ol>
CLOSED FACILITIES	1. Juvenile correctional centres and juvenile shelters.
SHELTERED DWELLINGS	<ol> <li>Sheltered training dwellings and transitional living dwellings for persons leaving foster care.</li> <li>Sheltered supported housing for persons with disabilities, including: persons with physical disabilities or mental disorders and the elderly or chronically ill.</li> <li>Sheltered training dwellings for persons transitioning out of homelessness.</li> <li>Sheltered training dwellings for foreigners.</li> </ol>