

Single Integrated Metadata Structure (SIMS)

Country: Greece

Compiling agency: Population-Housing Census 2011

ELSTAT metadata

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4.1 Data description	
<p>The Population and Housing Censuses collect statistical data on the main characteristics of dwellings, the number and composition of households and nuclear families, as well as on the demographic, social, educational and economic characteristics of the resident population of the Country. The survey unit is the residential dwelling and the individual. The Population-Housing census was conducted in all the Member States of the EU in harmonized definitions. The surveyed characteristics of the census are laid down in Community legislation. The aggregate results are released and presented in statistical tables up to the level of the Regional Unit (NUTS 3) and of the Municipality (LAU 1).</p>	
4.2 Classification system	
<p>Statistical Classification of Economic Activities NACE REV 2 of EU, International Standard Classification of Occupations ISCO 08 of EU, International Standard Classification of Education ISCED 97 of UNESCO, Nomenclature of Territorial Units for Statistics NUTS , LAU of EU, Classification of the countries pursuant to Regulation 763/2008 of the European Parliament and of the Council.</p>	
4.3 Sector coverage	
<p>The Population and Housing Census was conducted all over the Greece and covered all the branches of economic activity of NACE REV2 in 3-digit level, all the professions of ISCO 08 in 4-digit level, levels of Education ISCED 1-6 and the administrative divisions at the following geographical levels: NUTS 1-3 and LAU 1-2.</p>	
4.4 Statistical concepts and definitions	
<p>The main purpose of the Census is to provide a common list of characteristics, which are enumerated on the basis of common rules and procedures so as to ensure the comparability of population and dwellings all over the European Union. The surveyed characteristics and the relevant definitions are laid down in Commission Regulation 1201/2009.</p> <p>Main variables definitions:</p> <p>Resident Population: the total number of persons normally residing in a specified geographical area for a period of at least 12 months prior to the date of conduct of the Census, or who have arrived at the place of usual residence during the last 12 months, with the intention to reside in the area for at least 1 year.</p> <p>Household: is defined as the total number of persons permanently residing in a dwelling, conventional or not, irrespective of whether they are relatives or not.</p> <p>Nuclear Family: is defined as two or more persons who live in the same household and who are related as husband and wife, as cohabiting partners, or as parent and child. Thus, a nuclear family comprises a couple without children, or a couple with one or more children, or a lone parent with one or more children.</p> <p>Child: refers to a blood, step or adopted son or daughter (regardless of age or marital status) who has</p>	

usual residence in the household of one of the parents and who has no partner or own child (-ren) in the same household.

Usual residence: means the place where a person normally spends the daily period of rest, regardless any temporary absence for purpose of recreation, holiday, visits to friends and relatives, business, medical treatment or religious pilgrimage.

As usual resident population in a given geographical area should be considered the persons who: i) reside for a period of at least 12 months in the place of their usual residence, before the reference date or ii) have moved during the 12 months before the reference date to the place of usual residence with intention to stay for at least one year. If it cannot be proved that cases i) and ii) apply, then usual residence is considered the place of declared residence.

Migration means the action by which a person changes the place of his /her usual residence.

Economically active population: are persons either employed or unemployed.

Employed are the persons aged 15 years or older, who during the week preceding the Census, declared:

- (a) that they worked, even for just one hour, for pay or profit, in cash or in kind
- (b) they were not at work but had a job or business from which they were temporarily absent.

Unemployed are the persons aged 15 and over who during the week preceding the Census, declared:

- (a) that they were without work i.e, they were neither employed nor self-employed, or
- (b) they were currently available for work , i.e., they were ready to start working as salaried employees or self-employed during the week preceding the Census and for two weeks after the Census and
- (c) they were seeking for a job, i.e., they had taken all the necessary steps to search for a salaried job or self-employment, within 4 weeks before the end of the week preceding the Census.

Economically non-active are those persons who are younger than the working age (on the basis of the national definition for the minimum working age –15 years -) for having an economic activity, as well as pensioners, capital income recipients, etc.

Conventional dwelling: it is a permanent and independent structure that consists of at least one regular room and it is intended to be used as a dwelling of a household for at least one year.

Non-conventional dwelling: it is a structure from shoddy materials not necessarily intended for dwelling, found occupied during census period (huts, cabins, shacks, shanties, caravans, houseboats etc).

4.5 Statistical unit

The statistical units are: the residential dwelling, the inhabited collective living quarter and the resident. For every residential dwelling data are collected for its geographical position, the type (conventional, non-conventional) the characteristics of the conventional dwelling (status and type of building, period of construction) amenities of the dwelling (useful floor space of the dwelling, number of rooms, water supply system, bathing or shower facilities, toilet or WC, heating), as well as tenure status. For each resident data are collected on the gender, date of birth, legal marital status, place of birth, country of citizenship, previous usual residence at NUTS 3 level, previous usual residence in a foreign country, educational level, recent activity status and branch of economic activity, profession, employment status and place of work.

4.6 Statistical population

Persons enumerated in the 2011 census are those (present or temporary absent) who were usually resident in the territory of Greece, in every age, sex and citizenship as well as all the persons who spent overnight into the greek territory the night of 9th to 10th of May 2011.

The reference population of the data are all the statistical units referred to in item 4.5 and are located within the boundaries of Greece.

4.7 Reference area

The Population-Housing Census was conducted all over Greece, pursuant to Kallikratis Plan (Law No 3852/2010) and at the following levels: 7 Decentralized Central Administrations, 13 Regions, 74 Regional Units, 325 Municipalities, 947 Municipal Units, 6.064 Municipal/Local Communes and 13.512 Settlements (oikismoi).

4.8 Time coverage

The most recent is 2011 Population-Housing Census. The data of the Population-Housing Census are released every ten years. Previous available data are the data of the Population and Housing Census which was conducted in 2001.

4.9 Base period

Not applicable

5. Unit of measure

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Four units of measure are used: the number and the percentage (%) of dwellings, of households, of nuclear families and of individuals.

6. Reference period

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It is the 9th of May 2011. There is an exception for the variables of «main occupation», «type of establishment or enterprise» and «working hours» for which reference period is the week 3-9/5/2011.

7. Institutional mandate

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7.1 Legal acts and other agreements

The legal framework concerning the organization and operation of ELSTAT is as follows:

► **Law 3832/2010 (Government Gazette No 38, Issue A):** "Hellenic Statistical System Establishment of the Hellenic Statistical Authority (ELSTAT) as an Independent Authority", as amended by article 90 paragraphs 8 and 9 of the Law 3842/2010 (Government Gazette No 58, Issue A): "Restoration of fiscal justice, confrontation of tax evasion and other provisions", by article 10 of the Law 3899/2010 (Government Gazette No 212, Issue A): "Urgent measures for the implementation of the assistance program of the Greek Economy", by article 45 of the Law 3943/2011 (Government Gazette No 66, Issue A): "Combating tax evasion, staffing of auditing services and other provisions falling within the competence of the Ministry of Finance", by article 22 paragraph 1 of the Law 3965/2011 (Government Gazette No 113, Issue A): "Operations Reform of the Consignment and Loan Fund, Public Debt Management Agency, Public Enterprises and Government bodies, the establishment of the General Secretary of Public Property and other provisions", by article first of the Law 4047/2012 (Government Gazette No 31, Issue A): "Ratification of the Act of Legislative Content "Very urgent measures for the implementation of the Medium-term Fiscal Strategy 2012-2015 and of the State Budget for 2011" and of the Act of Legislative Content "Regulation of very urgent issues for the implementation of law 4024/2011 "Pension provisions, uniform pay scale - grading system, labour reserve and other provisions for the implementation of the Medium-term Fiscal Strategy Framework 2012-2015" and of issues falling within the competence of the Ministries of Administrative Reform and E-Governance, Interior, Finance, Environment, Energy and Climate Change, and of Education, Lifelong Learning and Religious Affairs and related to the implementation of the Medium-term Fiscal Strategy Framework 2012-2015" and other provisions", by article 323 of the Law 4072/2012 (Government Gazette No 86, Issue A): "Improvement of the business environment New corporate form - Trade Marks - Realtors - Regulating maritime, port and fishing matters and other provisions" and by article 7 paragraph 1 of the Act of Legislative Content dated 18/11/2012 (Government Gazette No 228, Issue A): "Financial rules and other provisions", by Article 93 of the Law 4182/2013 (Government Gazette No 185, Issue A): "Code of charitable estate, inheritances in abeyance and other provisions", by Article 6 paragraph 8 of the Law 4244/2014 (Government Gazette 60, Issue A): "Integration in Greek law of the Council Directive 2013/1/EU of 20 December 2012 amending Directive 93/109/EC as regards certain detailed arrangements for the exercise of the right to vote and stand as a candidate in elections to the European Parliament for citizens of the Union residing in a Member State of which they are not nationals and amendment of law 2196/1994 (A' 41) and other provisions", by Article first subparagraph C.3 of the Law 4254/2014 (Government Gazette No 85, Issue

A): *“Measures for the support and development of the Greek economy, in the context of the implementation of Law 4046/2012, and other provisions of law”* and by Article 33, paragraphs 5a and 5b of the Law 4258/2014 (Government Gazette No 94, Issue A): *“Demarcation process and arrangements of matters for streams - arrangements of Urban Planning legislation and other provisions”*.

► **Regulation on the Operation and Administration of the Hellenic Statistical Authority (ELSTAT)**, 2012, (Government Gazette No 2390, Issue B, 28-8-2012)

► **Regulation (EC) No 223/2009 of the European Parliament and of the Council**, on the European statistics (Official Journal of the European Union L 87/164).

► **Article 14 of the Law 3470/2006** (Government Gazette No 132, Issue A): *“National Export Council, tax regulations and other provisions”*.

► **Article 3, paragraph 1c, of the Law 3448/2006** (Government Gazette No 57, Issue A): *“For the further use of information coming from the public sector and the settlement of matters falling within the responsibility of the Ministry of Interior, Public Administration and Decentralization”*.

► **European Statistics Code of Practice**, adopted by the Statistical Programme Committee on 24 February 2005 and promulgated in the Commission Recommendation of 25 May 2005 on the independence, integrity and accountability of the national and Community statistical Authorities, after its revision, which was adopted on 28 September 2011 by the European Statistical System Committee.

► **Presidential Decree 226/2000 (Government Gazette No 195, Issue A)**: *“Organization of the General Secretariat of the National Statistical Service of Greece”*.

► **Articles 4, 12, 13, 14, 15 and 16 of the Law 2392/1996** (Government Gazette No 60, Issue A): *“Access of the General Secretariat of the National Statistical Service of Greece to administrative sources and administrative files, Statistical Confidentiality Committee, settlement of matters concerning the conduct of censuses and statistical works, as well as of matters of the General Secretariat of the National Statistical Service of Greece”*.

The national legal framework for the conduct of the 2011 Population and housing Census is as follows:

► Presidential Decree No168/2008 (Government Gazette 223/A/04.11.2008) «Conduct of General Censuses of Buildings and Population –Housing for the years 2010-2011».

► Joint Ministerial Decision No 1524/Γ5-473/2011 (Government Gazette 425/B/17.03.2011) «Notice for the Conduct of the General Censuses of Buildings and Population –Housing for the years 2010-2011»

► Joint Ministerial Decision No 3794/Γ5-1070/2011 (Government Gazette 783/B/9.05.2011) «Amendment and completion of the Decision No 1524/Γ5-473/14.02.2011 (425/B/17.03.2011) Notice for the Conduct of the General Censuses of Buildings and Population –Housing for the years 2010-2011».

► The Law No 3852/2010 «New architecture of Self government and the Decentralized Administration – Kallikratis Plan» (Government Gazette 87/A/7.06.2010), as in force on 9 May 2011, reference date of the 2011 Population and Housing Census, replacing the Law 2539/1997 «Establishment of the Local Government of First Degree » (Government Gazette 244/A/4.12.1997)

► Legislative Act on the «Conduct of Population and Housing Census » (Government Gazette 106/A/9.05.2011).

► Law No 3995/2011 ratifying the Legislative Act on the «Conduct of Population and Housing Census » (Government Gazette 166/A/25.07.2011).

► Regulation No 763/2008 of the European Parliament and the Council concerning population and housing census, its implementing Regulations 1201/2009, 519/2010 and 1151/2010.

► The methodological and organizational principles stipulated in the Recommendations of the Conference of European Statisticians for the 2010 Round of Population and Housing Censuses, which are the outcome of the cooperation between UNECE and Eurostat.

7.2 Data sharing

Census Hub project of Eurostat.

8. Confidentiality

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8.1 Confidentiality policy

The issues concerning the observance of statistical confidentiality by the Hellenic Statistical Authority (ELSTAT) are arranged by articles 7, 8 and 9 of the Law 3832/2010 as in force, by Articles 8, 10 and 11(2) of the Regulation on Statistical Obligations of the agencies of the Hellenic Statistical System and by Articles 10 and 15 of the Regulation on the Operation and Administration of ELSTAT.

More precisely:

ELSTAT disseminates the statistics in compliance with the statistical principles of the European Statistics Code of Practice and in particular with the principle of statistical confidentiality.

8.2 Confidentiality – data treatment

► ELSTAT protects and does not disseminate data it has obtained or it has access to, which enable the direct or indirect identification of the statistical units that have provided them by the disclosure of individual information directly received for statistical purposes or indirectly supplied from administrative or other sources. ELSTAT takes all appropriate preventive measures so as to render impossible the identification of individual statistical units by technical or other means that might reasonably be used by a third party. Statistical data that could potentially enable the identification of the statistical unit are disseminated by ELSTAT if and only if:

a) these data have been treated, as it is specifically set out in the Regulation on Statistical Obligations of the agencies of the Hellenic Statistical System (ELSS), in such a way that their dissemination does not prejudice statistical confidentiality or

b) the statistical unit has given its consent, without any reservations, for the disclosure of data.

► The confidential data that are transmitted by ELSS agencies to ELSTAT are used exclusively for statistical purposes and the only persons who have the right to have access to these data are the personnel engaged in this task and appointed by an act of the President of ELSTAT.

► ELSTAT may grant researchers conducting statistical analyses for scientific purposes access to data that enable the indirect identification of the statistical units concerned. The access is granted provided the following conditions are satisfied:

a) an appropriate request together with a detailed research proposal in conformity with current scientific standards have been submitted;

b) the research proposal indicates in sufficient detail the set of data to be accessed, the methods of analyzing them, and the time needed for the research;

c) a contract specifying the conditions for access, the obligations of the researchers, the measures for respecting the confidentiality of statistical data and the sanctions in case of breach of these obligations has been signed by the individual researcher, by his/her institution, or by the organization commissioning the research, as the case may be, and by ELSTAT.

► Issues referring to the observance of statistical confidentiality are examined by the Statistical Confidentiality Committee (SCC) operating in ELSTAT. The responsibilities of this Committee are to make recommendations to the President of ELSTAT on:

the level of detail at which statistical data can be disseminated, so as the identification, either directly or indirectly, of the surveyed statistical unit is not possible;

the anonymization criteria for the microdata provided to users;

the granting to researchers access to confidential data for scientific purposes.

► The staff of ELSTAT, under any employment status, as well as the temporary survey workers who are employed for the collection of statistical data in statistical surveys conducted by ELSTAT, who acquire access by any means to confidential data, are bound by the principle of confidentiality and must use these data exclusively for the statistical purposes of ELSTAT. After the termination of their term of office, they are not allowed to use these data for any purpose.

► Violation of data confidentiality and/or statistical confidentiality by any civil servant or employee of ELSTAT constitutes the disciplinary offence of violation of duty and may be punished with the penalty of final dismissal.

► ELSTAT, by its decision, may impose a penalty amounting from ten thousand (10,000) up to two hundred thousand (200,000) euros to anyone who violates the confidentiality of data and/or statistical confidentiality. The penalty is always imposed after the hearing of the defense of the person liable for the breach,

depending on the gravity and the repercussions of the violation. Any relapse constitutes an aggravating factor for the assessment of the administrative sanction.

► Moreover, as regards the General Censuses (Buildings Census and Population-Housing Census), in 2011 the Hellenic Authority for Personal Data Protection issued the Decision No 52/2011, on the basis of which, at a first stage, the census questionnaire was approved and which laid down issues concerning both data confidentiality during the collection and processing of the questionnaire and the time period during which the questionnaires would be kept. All printed and digital data and material of the Population-Housing Census were destroyed in compliance with the provisions of the Directive No 1/2005 issued by the Hellenic Authority for Personal Data Protection.

9. Release policy

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9.1 Release calendar

Pursuant to Regulation 763/2008 of the European Parliament and of the Council data are made to be available 27 months after the end of the reference year of the Census (March 2014). Data became available after an informal extension of a few days (17/4/2014).

9.2 Release calendar access

Through ELSTAT'S website:

http://www.statistics.gr/portal/page/portal/ESYE/BUCKET/General/release_calendar_en.pdf

9.3 User access

Users have direct access to the published results of the 2011 Population-Housing Census through the official portal of ELSTAT:

<http://www.statistics.gr/portal/page/portal/ESYE/PAGE-census2011>

10. Frequency of dissemination

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The results of the Census are disseminated every tens years as well as after the completion of the data processing of each variable.

11. Dissemination format

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11.1 News release

► 31 July 2012, ELSTAT announced the results for the Registered Population of Greece, i.e., the number of citizens registered in each Municipality of Greece per Municipal Unit, as it was enumerated during the 2011 Population – Housing Census.

► 28 December 2012 and on 15 March 2013 ELSTAT announced the results for the Resident and the de facto Population, respectively.

► 23 August 2013 ELSTAT released the demographic characteristics of the Resident Population as regards sex, age, citizenship, marital status and type of household.

► 20 March 2014 revised data for the Resident, Registered and de facto Population were published on account of minor deviations from the initially published data that were identified, after the completion of the processing and checking of the data collected from the 2011 Population-Housing Census.

► 17 April 2014, Eurostat Census Hub was updated with the results of the Greek 2011 Population-Housing Census.

► 2 September 2014 was published a Press Release concerning the characteristics and amenities of the dwellings.

- ▶ 3 September 2014 was publishes a Press Release about the economic characteristics of the resident population.
- ▶ 5 September 2014 was published a Press Release concerning the migration.
- ▶ 12 September 2014 a Press Release was published concerning the demographic and social characteristics of resident population according to the revised data of the resident population of 20/3/2014.
<http://www.statistics.gr/portal/page/portal/ESYE/PAGE-census2011>

11.2 Publications

A special publication for the results of the 2011 Population -Housing Census has not been published, yet the results have already been published in the Government Gazette. Special leaflets have been published for the demographic and social characteristics, the economic characteristics and the migration of the resident population as well as the characteristics and amenities of the dwellings.

11.3 On-line database

No data available on the online database of ELSTAT.

11.3.1 Data tables - consultations

18.253 users visited Census pages in the official website of ELSTAT during 2013.

11.4 Micro-data access

Users are not allowed to have access to Census microdata.

11.5 Other

Users can be given data or other statistical analysis, through mail, fax or e-mail, upon request, after submitting an application to the Statistical Information and Publications Division, ELSTAT, 46 Peireos & Eponiton str. 80847, 18510 Piraeus (tel. +302131352-310, Fax: +302131352-312, e-mail: data.dissem@statistics.gr and census@statistics.gr).

Users can also submit their requests via website at: "Statistical Data request".

<http://www.statistics.gr/pls/apex/f?p=106:1030:3422840279307253::NO::>

Tabulated census data are available on the official website of ELSTAT, at "Population Census 2011".

<http://www.statistics.gr/portal/page/portal/ESYE/PAGE-cencus2011tables>

Users can also visit the digital library of ELSTAT via website:

<http://dlib.statistics.gr/portal/page/portal/ESYE/>

11.5.1 Metadata – consultations

The relevant software application counts only hits to the webpage of every survey (total hits), without making any distinction between webpages with tables and webpages with methodological documents (metadata) .

12. Accessibility of documentation

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12.1 Documentation on methodology

The methodology implemented for the 2011 Population and Housing Census was laid down in a relevant circular published by ELSTAT (Circular 1 "General guidelines for the preparation, organisation and conduct of the General Censuses") taking into consideration international practice and mainly the recommendations, guidelines and rules set out by Eurostat, in compliance with Regulation No 763/2008 of the European Parliament and the Council as well as with the methodological and organizational principles stipulated in the

Recommendations of the Conference of European Statisticians for the 2010 Round of Population and Housing Censuses .

12.1.1 Metadata completeness - rate

Single Integrated Metadata Structure (SIMS) is fully completed.

12.2 Quality documentation

Quality will be documented on the basis of the Single Integrated Metadata Structure (SIMS) on the 2011 Population-Housing Census that will be posted on the official website of ELSTAT.

13. Quality management

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13.1 Quality assurance

For the 2011 Census ELSTAT implemented for the first time new quality requirements and as a result the quality assurance procedures and the quality controls were stricter than in any other census conducted before.

More specifically, the questionnaires that were collected from the 58,684 Census Sections correspond to 34,780,000 handwritten pages. In order to convert the data in the paper questionnaires into a digital format, so that they become processable and can undergo the necessary multiple quality checks and cross-checks, the Optical Character Recognition (OCR) method was implemented with the use of scanners. In order to check that the data of every questionnaire page were accurately and correctly captured and digitally recorded, and to eliminate any errors due to the optical character recognition after the scanning, ELSTAT staff also optically verified (data verification) the correctness of the data entered for each questionnaire and made the necessary corrections or additions, where appropriate. During this procedure, some first-stage logical checks also took place (verification), as well as other checks (e.g., for identifying and deleting double counts, for checking completeness, correctness of geographic codes, consistency of geographic codes with the corresponding word of geographic identification, uniqueness of the questionnaire code number, continuous ascending numbering of the individual in the household, enrolment in the municipal registers in relation with citizenship, plausibility of the year of birth, etc.), so as to eliminate and correct any errors in the data entered.

Following this procedure, all the variables of the census questionnaires were correlated with each other and if any inconsistencies were identified, the data were duly corrected (e.g. correlation of age with marital status, age with educational attainment, gender with the number of children born, etc.). These checks were conducted very thoroughly despite the huge volume of data.

After the implementation of the aforementioned procedures, the processing of the census data was completed and after having ensured that the data fulfilled the quality requirements of European statistics, the data were published.

Another tool which was used for assessing the quality of the 2011 Census data, in comparison with the 2001 Census, was the Post Enumeration Survey (PES). The PES was conducted after the Census and more specifically during the period 15- 30 June 2011, on a significantly big sample of 19,380 households (representing approximately 0.47% of the total households of Greece). The PES aimed at assessing the completeness and the quality of the 2011 Census data, at the level of the Municipality, according to Kallikratis Plan. A total of 28,997 persons were surveyed. The conduct of the PES is obligatory pursuant to Community Legislation and its usefulness is that through comparisons, it can assess the undercount or overcount of Resident Population of the Census, as well as the consistency of answers given to the questions concerning the Municipal Commune where the enumerated person is enrolled. Therefore, the PES assesses the quality and reliability of the census results both for the resident and the registered population.

http://www.statistics.gr/portal/page/portal/ESYE/BUCKET/General/methodological_note_census_coverage_survey_final.pdf

Moreover, the “Quality Guidelines” of ELSTAT are available at:

http://www.statistics.gr/portal/page/portal/ESYE/BUCKET/General/ELSTAT_quality_guidelines.pdf

13.2 Quality assessment

First stage: The questionnaires, which were filled in by enumerators, were collected by the Chiefs of Census Sectors and then by ELSTAT staff in the local offices of ELSTAT which had been established during the

conduct period of the Census. The questionnaires were then checked in order to identify any errors. The questionnaires underwent logical and completeness checks. Afterwards, the questionnaires were sent to the premises of ELSTAT.

Second stage: the questionnaires were scanned through OCR software and new logical checks were carried out electronically. In addition, they were checked for completeness and for double recordings. The individuals who were double recorded (double enumerated in different places) were dully deleted from the database and in addition a minor loss of questionnaires was identified (the questionnaires of 6 out of 58,684 census sections were lost). The data of these questionnaires were imputed and then imported in the database. The imputation method was based on the questionnaires of similar census sections belonging in the same geographic area.

Then, quality checks and crosschecks between the variables were carried out in the data of the database and any errors were dully corrected by using auto correction rules. The results of the 2011 Population-Housing Census were compared with the corresponding results of the 2001 Population-Housing Census, as well as with corresponding data of other surveys conducted by ELSTAT (e.g. Labour Force Survey, etc) in order to cross check trends and proceed to evaluation of the results. The results of the 2011 Population-Housing Census are not fully comparable with the results of 2001 Census or other surveys due to methodological differences.

Moreover, the data were also checked with other administrative data, when available, in order to ensure, to the maximum extend possible, the coherence of the census data. Indicatively, census data were cross-checked with the data of the Hellenic Gas Transmission System Operator (DESFA) as regards the settlements where natural gas was available, as well as with the data of the Ministry of Administrative Reform, E-Government as regards the number of civil servants.

In addition, in order to assess the completeness and quality of the produced results, ELSTAT conducted a Post Enumeration Survey on a sample of 19,380 households from all over Greece. The results of the PES show that the resident population was under-estimated (coverage error) by 2.83% for Greece total, a percentage share which is in full compliance with the quality standards set out for Censuses.

14. Relevance

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14.1 User needs

The main users of the Population-Housing Census results are General Government entities, universities, research centers, local government and private users, as well as international organisations (Eurostat, the United Nations, etc). The Census data are necessary for drawing the economic and social policy of the Country, but also in order for Greece to fulfill its obligations towards the European Union and other international organisations. In addition, the census data are the basis for the conduct of other surveys and research projects.

The biggest share of users' requests refers to the provision of the census results at a lower level of geographical breakdown than the level of the already published results in order to ensure confidentiality.

14.2 User satisfaction

The Population and Housing Census is conducted pursuant to EU Regulation which was compiled taking into consideration users' needs at European and international level. At the same time, ELSTAT conducts a user satisfaction survey, every six months, the results of which are available on ELSTAT portal, at the following link:

<http://www.statistics.gr/portal/page/portal/ESYE/PAGE-conferences>

14.3 Completeness

The Population and Housing Census and the compiled results are fully inline with Regulation No 763/2008 of the European Parliament and of the Council.

15. Accuracy and reliability

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15.1 Overall accuracy

The main sources of errors were: 1) Refusal of individuals to be enumerated during the census, something that during the PES resulted in under-coverage errors. 2) Some individuals were not enumerated on

account of the enumerators who were not performing their tasks efficiently. Some other individuals, belonging to "single" households, were not enumerated because during the conduct of the census they were abroad (these cases were also reflected as under-coverage errors). 3) Some questionnaires were not filled in properly either because the surveyed persons refused to answer all the questions, or on account of the enumerator (these errors were corrected and filled in with imputed values). 4) A small number of questionnaires were lost during their transportation (these errors were also corrected with the process of imputation).

15.2 Sampling error

No sampling errors, since the survey is a census survey.

15.3 Non-sampling error

The non-sampling errors of the 2011 Population-Housing Census are as follows: 1) Under-coverage (under-coverage errors amounting to 2.83%, which were calculated on the basis of a special sampling post enumeration survey, -Post Enumeration Survey-). 2) Errors due to the erroneous filling in of questionnaires. As regards under coverage errors, no adjustments were made to the Census database on the basis of the error rate, while, as regards the errors on account of erroneous filling in of questionnaires, these errors were identified and duly corrected by applying the imputation method. More specifically, the variables of those individuals who had not responded were filled in with the corresponding values from other individuals with similar characteristics. The imputation rate for each variable did not exceed 10%. This process minimized non-response bias. 3) Errors due to the loss of questionnaires, which were corrected by imputation. More specifically, the items which were corrected by this method amounted to: 0.009% of the dwellings, 0.007% of the households and 0.007% of the individuals.

15.3.1 Coverage error

As it has been mentioned in paragraph 15.3 the percentage of under-coverage error does not exceed 2,83%.

15.3.1.1 Over-coverage – rate

Over-coverage error does not exist.

15.3.1.2 Common units – proportion

Not applicable

15.3.2 Measurement error

Measurement errors may occur during data collection and as a result the recorded values of variables are different from the actual ones. These errors are due to reasons that may be categorized as follows:

Census tools: the questionnaires or other measurement tools (e.g. maps) used for data collection may lead to erroneous recording of values

Enumerated persons: the surveyed persons may, unintentionally or on purpose, provide erroneous information

Enumerators: the external statistical interviewers may influence the answers given by the surveyed persons.

The data were collected by means of personal interviews by filling in printed questionnaires. This data collection method ensured high quality of collected information, since the enumerators assisted the surveyed persons in filling in the questionnaire and checked thoroughly the filled in questionnaires before returning them.

The enumerators were external survey workers. Before the Census, the enumerators attended a special training seminar. The purpose of the seminar was to help the enumerators to: a) fully understand the definitions of the census characteristics in order to avoid bias from the surveyed persons, b) fill in correctly the questionnaire and c) to check thoroughly the questionnaires in order to detect any errors by conducting logical checks.

The structure and the size of the questionnaire were properly designed so as to be user-friendly for the enumerators and the questions were written in a simple language and in a clear manner by using the appropriate vocabulary. Furthermore, relevant circulars were elaborated containing useful information, analyzing all the questions of the questionnaire. All these actions were aiming at enhancing the collection of complete, filled in questionnaires without any missing values.

Any measurement errors which were detected were duly corrected by means of numerous quality checks (see paragraph 15.3 and 21).

15.3.3 Non response error

Non response errors were also managed with processes described on paragraph 15.3

15.3.4 Processing error

Once collected, the data are subject to a series of statistical processes before the production of final estimations (e.g., codification, data processing, etc.). Errors that may occur during these stages are called processing errors. Processing errors may be considered as random errors and they increase variation. The variation due to processing errors is integrated in the parameters estimation variation.

The errors due to the processing of the questionnaire of the 2011 Population -Housing Census are considered negligible due to the use of specialised software applications.

15.3.5 Model assumption error

Not applicable

16. Timeliness and punctuality

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16.1 Timeliness

Pursuant to Regulation 763/2008 of the European Parliament and of the Council the deadline for data availability was 27 months after the end of the year of Census (31/3/2014).

16.2 Punctuality

There was an unofficial extension of the deadline of data dissemination by a few days.

17. Comparability

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17.1 Comparability - geographical

The results are comparable with the corresponding results of other EU Member States since they are based on common definitions of variables in compliance with European Regulation 763/2008, as well as on common procedures for the processing of data which are fully harmonized with international practices.

17.1.1 Asymmetry for mirror flows statistics – coefficient

Not applicable

17.2 Comparability over time

The methodology of the 2011 Census differs significantly in several respects from that of previous Censuses, both in terms of the way it was conducted - e.g., the duration of the Census (15 days) in contrast with previous censuses which were conducted in 1 day- and the way of processing the census data (more complete and stricter quality controls). Moreover, in accordance with Regulation 763/2008 of the European Parliament and of the Council and relevant recommendations, during the 2011 Census, ELSTAT focused on recording the Resident Population of Greece, unlike previous Censuses, which aimed at recording the *De Facto Population*.

In addition, in the 2011 Census the concept of the “household-dwelling” was used (i.e., all the persons residing in a dwelling are considered members of the same household) so as one family corresponds to one occupied residential unit. According to the concept of “household-dwelling”, the number of occupied dwellings is equal to the number of households occupying the dwelling (therefore, the location of the dwellings is the same with the location of households), while in previous census the concept of the “household-administrator” was used (i.e. an individual household may be:

One-person household, i.e., a person living alone in a separate residential unit or occupying as proprietor a separate room (or rooms) but who is not related with none of the other proprietors so as to be part of a multi-persons household as defined in the following paragraph or

Multi-person household, i.e., a group of two or more persons intending to occupy all or part of a dwelling and to make provisions for their living on a common basis).

Therefore, the results of the 2011 census are not fully comparable with the results of previous censuses.

18. Coherence

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18.1 Coherence cross-domain

There is no cross-domain coherence between the Population-Housing Census data and the data from other surveys conducted by ELSTAT, e.g. the population-housing census data differ from the corresponding data of the Labour Force Survey because the latter is a sample survey.

18.1.1 Coherence – sub annual and annual statistics

Not applicable

18.1.2 Coherence – National Accounts

Not applicable

18.2 Coherence - internal

The Census data are internally coherent for similar variables, at all the geographical levels.

19. Cost and burden

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On the basis of calculations for estimating the cost and the burden for the collection and processing of the data of the 2011 Population-Housing Census, it is estimated that all these procedures lasted 40 months and encompassed the work and participation of ELSTAT staff, external survey workers and civil servants from other agencies of the public sector. The actual cost was approximately 66,2 million Euros.

20. Data revision

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20.1 Revision policy

The first data, which are released, are provisional data. They are validated and become final data when all the collected data are finalized. The data are validated by ELSTAT on the basis of strict checking rules. Furthermore the final, aggregate data are checked again. However, the final data may undergo some revisions at a later stage, if any errors are identified. More details on the revision policy of ELSTAT can be found on the portal of ELSTAT, at the following link:

http://www.statistics.gr/portal/page/portal/ESYE/BUCKET/General/ELSTAT_Revisions_Policy_22_5_2013_EN.pdf

20.2 Revision practice

The data, which are published and released as final data, may be revised in case where it is deemed necessary. There is no time schedule for the revision of the Census data.

21. Statistical processing

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21.1 Source data

Traditional Census without using any data from administrative sources or registers from other surveys. Questionnaire of Census can be found on ELSTAT portal, at the following link:

http://athens-intra/DocLib1/ΓΕΝΙΚΕΣ%20ΑΠΟΓΡΑΦΕΣ%20ΟΙΚΟΔΟΜΩΝ_ΚΤΙΡΙΩΝ%20ΚΑΙ%20ΠΛΗΘΥΣΜΟΥ_ΚΑΤΟΙΚΙΩΝ%202010_2011/ΞΕΝΟΓΛΩΣΣΑ%20ΕΡΩΤΗΜΑΤΟΛΟΓΙΑ_ΕΝΗΜΕΡΩΤΙΚΑ_ΠΛΗΡΟΦΟΡΙΑΚΑ/ΑΓΓΛΙΚΑ_CENSUS%20FORM.pdf

21.2 Frequency of data collection

The conduct of general censuses at specific time intervals is provided for in article 10 of the Law 3832/2010 "Hellenic Statistical System (ELSS), Establishment of the Hellenic Statistical Authority (ELSTAT)".

More specifically, population censuses are conducted pursuant to Regulation 763/2008 of the European

Parliament and of the Council.

It is agreed among UN Member States to conduct population censuses every ten years and more specifically in years ending in 0 or 1 (e.g., 1990 or 1991, 2000 or 2001, etc.), thus ensuring comparability of data among Member States.

The previous Population Census was conducted on 18 March 2001.

The 2011 Population-Housing Census was conducted pursuant to the legal framework that has been mentioned in paragraph 7.1.

21.3 Data collection

The data of the Population and Housing census were collected through personal interviews taking place between the enumerator and a representative of the household, as well with every resident of the collective living quarters, on the basis of a specially designed questionnaire. The design of the census questionnaire was covering both Community and national requirements for statistical information covering all the variables laid down in Regulation 763/2008 and in addition variables of national interest. The design of the questionnaire took also into consideration users' needs.

In order to ensure effective collection of data, several training seminars were organised for the staff that participated in the Census.

► **Training of Seniors Supervisors and of Census Supervisors:** a two-day training seminar was organised in the premises of ELSTAT with the participation of seven (7) Senior Supervisors and of ninety-four (94) Census Supervisors. The Senior Supervisors were Directors of Statistical Divisions of ELSTAT and the Census Supervisors were mostly Head of Sections or employees with experience in the conduct of censuses. The trainers were skilled and qualified employees with experience in the conduct of Population-Housing Censuses. Among the issues studied during the seminar were the organisation and the conduct of the census and their competencies. The census questionnaire was also presented and analyzed and some special cases were discussed.

► **Training of Assistant Supervisors:** they were trained by the competent Census Supervisors and they were working under their guidelines and directions. The Census Supervisors amounted to 543 persons who were either permanent personnel of ELSTAT (343 persons) or employees who were recruited on a temporary basis for a time interval of 8 months (200 persons).

► **Training of Chief of Census Sectors and Enumerators:** the Chiefs of Census Sectors (approximately 12,000), the Enumerators (approximately 45,000) and the Assistants-Interpreters (approximately 300) were trained by the local competent Supervisors during one-day training seminars. During the seminars the census questionnaire was presented, their competencies and tasks were explained and other issues were discussed, such as issues concerning the filling in of the questionnaire and specific issues concerning the cases of refusals. The Chiefs of Census Sectors, the Enumerators and the Assistants-Interpreters were employees working in the private or public sector (except ELSTAT) who were selected on the basis of a specific selection procedure.

The Senior Supervisors were supervising and monitoring all the census tasks in a geographic area, which included a big number of Supervision Areas. In every Supervision Area the Supervisor was responsible for the census tasks and he was assisted by the Assistant Supervisors. Each Supervision Area was divided into Census Sectors. The competent person in every Sector - which included four (4) enumeration sections- was the Chief of Census Sector whose main responsibility was to monitor the work of enumerators of his Sector. The enumerators had to visit every inhabited area of their enumeration section and to fill in the corresponding questionnaires. The enumerators were assisted by the assistant-interpreters where necessary.

21.4 Data validation

The data were validated as follows:

1. Logical checks and completeness checks were conducted in every Supervision Area in order to ensure correctness of data and to dully correct any errors. Before the delivery of data to the Supervision Areas, the Chiefs of Census Sectors had already conducted the appropriate checks.
2. Optical Reading of Data (OCR) on the paper questionnaires and data verification process.
3. Verification of data: validation of data after a series of electronic checks. The errors, which were identified by these checks or reminders, were dully corrected.
4. Checks in order to identify any double- enumerated individuals.

5. Quality checks: the variables were correlated and logical checks were conducted in the database by using specific rules and in case of inconsistencies the errors were auto-corrected. The results of the 2011 Population-Housing Census were compared with the corresponding data of the 2001 Population-Housing Census, as well as with the results from other surveys conducted by ELSTAT (e.g., LFS) in order to assess the produced results.
6. Checks with other administrative data, when available, in order to ensure, to the maximum extent possible, the coherence of the census data. Indicatively, census data were cross-checked with the data of the Hellenic Gas Transmission System Operator (DESFA) as regards the settlements where natural gas was available, as well as with the data of the Ministry of Administrative Reform, E-Government as regards the number of civil servants.

21.5 Data compilation

After the collection of questionnaires and their optical reading the data were finally introduced and saved in an electronic file. Then, in the database the variables were correlated and several logical checks were conducted using specific rules and there were also auto-corrections in cases of inconsistencies (more details can be found on paragraphs 13.2, 15.1, 15.3). An imputation procedure was implemented in cases of variables with non-response. Finally, the final database with the Census microdata was compiled from where the tabulated results were produced.

21.5.1 Imputation – rate

Under 10% for each variable.

21.6 Adjustment

No adjustments

21.6.1 Seasonal adjustment

Not applicable

22. Comment

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