



Economic and Social Council

Distr.: General
20 August 2013

Original: English

Economic Commission for Europe

Conference of European Statisticians

Group of Experts on Population and Housing Censuses

Fifteenth Meeting

Geneva, 30 September – 3 October 2013

Item 4 of the provisional agenda

Population bases

Population definitions at the 2010 censuses round in the countries of the UNECE region

**Note by the UNECE Task Force on population to be enumerated and
geographic characteristics***

Summary

In early 2013, UNECE conducted an online survey among its member countries on national practices in the 2010 round of population and housing censuses. This document presents an overview of the main results of the survey, with regard to the population to be enumerated. It is shown that, although there is a large convergence across countries towards a common population concept of reference (the “usually resident” population), the full international comparability of the census results is still hampered by the variety of implementations of the recommended population definition. The analysis concludes with the identification of potential areas of revision for the next recommendations on population censuses.

* This document has been prepared by Giampaolo Lanzieri of the Statistical Office of the European Union (Eurostat). Comments by Ian White (the United Kingdom Office for National Statistics), Harald Utne (Statistics Norway) and Snezana Remikovic (Statistical Office of Montenegro) are gratefully acknowledged.

I. Introduction

1. The definition of the population is not only central to the census operation, but it is at the very heart of the institutional and socio-economic setting of a country. Defining the rules according which a person is part or not of the population of a country has indeed far reaching consequences, first-hand examples being the allocation of parliamentary seats or the attribution of funds depending on the population size. The definition of the population is therefore a fundamental component of the statistical information of a country — if not its core — and the population census is the primary framework in which such choice is made.

2. At the beginning of 2013, UNECE has launched an online survey to analyse the national practices during the latest census round of its Member States. This survey followed previous experiences made by Eurostat and UNECE on the census 2000 round, whose results were published respectively in 2004 and 2008 (University of Thessaly 2004a, 2004b; UNECE 2008).

3. The questionnaire for this exercise was developed by several task forces, each of them dealing with a defined set of census aspects/topics. One of those was concerned with the “Population to be enumerated”, mainly referring to the topics listed in the chapter 3 of the Conference of the European Statisticians (CES) Recommendations, published in 2006 (UNECE 2006). That chapter defined the population that should be surveyed in the census operation, and a number of problematic cases are listed.

4. This paper reports the first outcomes of the UNECE survey on the topics related to the population. The Section II recalls the main population issues dealt in the CES Recommendations, while the Section III describes the logic and potentiality of the approach taken in the UNECE survey as for population issues. The Section IV warns about some data quality issues which should be kept in mind while reading the main results analysed in the Section V. In view of the forthcoming revision of the recommendations for the next population census round, the Section VI concludes with some suggestions about possible items of discussion concerning the population definition, whose follow-up is taken in a separate contribution (see ECE/CES/GE.41/2013/11). For easier verification of the data, the Annex to this document (ECE/CES/GE.41/2013/10/Add.1) reports some of the survey questions on population issues and the answers provided by each country.

II. International recommendations on population

5. The population concept recommended by the CES, later incorporated in the European Union (EU) regulation on population and housing censuses, is based on the place of usual residence, defined as the place where a person spends or intends to spend most of his/her daily night-rest over a continuous period of 12 months.

6. The concept recommended for the UNECE region is in fact one of the two options proposed at global level by United Nations Statistics Division (UNSD) in the “Principles and Recommendations for Population and Housing Censuses – Rev.2” (UNSD 2008). It is there stated that:

“1.461. In general, “usual residence” is defined for census purposes as the place at which the person lives at the time of the census, and has been there for some time or intends to stay there for some time.

1.462. Generally, most individuals enumerated have not moved for some time and thus defining their place of usual residence is clear. For others, the application of the definition can lead to many interpretations, particularly if the person has moved often.

1.463. It is recommended that countries apply a threshold of 12 months when considering place of usual residence according to one of the following two criteria:

- (a) The place at which the person has lived continuously for most of the last 12 months (that is, for at least six months and one day), not including temporary absences for holidays or work assignments, or intends to live for at least six months;
- (b) The place at which the person has lived continuously for at least the last 12 months, not including temporary absences for holidays or work assignments, or intends to live for at least 12 months.”

7. It is of interest to see how the concept has somehow evolved over time. Its roots are in the international recommendations for migration statistics (UNSD 1998) where, recalling a concept already used in previous international recommendations on population censuses by UNSD, first it is stated that:

“32. ...A person’s country of usual residence is that in which the person lives, that is to say, the country in which the person has a place to live where he or she normally spends the daily period of rest. Temporary travel abroad for purposes of recreation, holiday, business, medical treatment or religious pilgrimage does not entail a change in the country of usual residence.” (UNSD 1998).

and then the relevant time specification is given, in agreement with the Recommendations on Tourism Statistics (United Nations and World Tourism Organization, 1994):

“36. With regard to the time element, when the definition of international migrant presented in paragraph 32 is compared with the definition of international visitor presented in paragraph 34, it is clear that if a distinction is to be made between the two, the change of country of usual residence necessary to become an international migrant must involve a period of stay in the country of destination of at least a year (12 months)...” (UNSD 1998).

Here, the concept of usual residence adds a period specification (12 months) to the identification of place of usual residence (where the person spends the daily period of rest). It is also interesting to note that, according to the same recommendations:

“33. ...the place of usual residence may be the same as, or different from, the place where the person was found at the time of the census or his/her legal residence; that is to say, the place of usual residence need not be the place of legal residence of the person concerned...” (UNSD 1998).

Therefore, for migration statistics there is a clear conceptual difference between place of usual residence and legal or registered residence.

8 In the CES Recommendations (UNECE 2006), the definition of total usually resident population becomes as follows:

“171. A total usually resident population count for each territorial division would normally be compiled by adding persons who are usually resident and present and persons who are usually resident but temporarily absent...” (UNECE 2006).

which in turn is based on two previous paragraphs, where the concept of place of usual residence is defined (UNECE 2006):

“158. Place of usual residence is the geographic place where the enumerated person usually resides. This may be:

- (a) The place where he/she actually is at the time of the Census; or
- (b) His/her legal residence; or
- (c) His/her residence for voting or other administrative purposes.”

together with the relevant time specification (UNECE 2006):

“159. Only those persons:

(a) who have lived in their place of usual residence for a continuous period of at least twelve months before Census Day; or

(b) who have arrived in their place of usual residence during the twelve months before Census Day with the intention of staying there for at least one year should be considered as usual residents of the relevant geographic or administrative subdivision... Persons who have been temporarily absent for a short period from their place of usual residence over the previous twelve months for reasons such as work or holiday travel should be included.”

Therefore, in the CES Recommendations it is defined how the period of time should be assessed (continuous period) and the difference between place of usual residence and legal/registered residence is somehow nuanced.

9. Finally, the concept of usual residence is also taken on board by the EU regulation on population and housing censuses¹, implemented in 30 countries (the European Economic Area, composed by the 27 Member States of the European Union plus Iceland, Liechtenstein and Norway). In that regulation the usual residence is defined as follows:

“Art.2(d): ‘usual residence’ shall mean the place where a person normally spends the daily period of rest, regardless of temporary absences for purposes of recreation, holidays, visits to friends and relatives, business, medical treatment or religious pilgrimage.

The following persons alone shall be considered to be usual residents of the geographical area in question:

(i) those who have lived in their place of usual residence for a continuous period of at least 12 months before the reference date; or

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

Where the circumstances described in point (i) or (ii) cannot be established, ‘usual residence’ shall mean the place of legal or registered residence;”

where in fact an identity is set between “place of usual residence” and “place of legal or registered residence”, the latter without being further defined.

III. Defining population concepts

10. The definition of population is as fundamental as it is complex. While it may be safely assumed that there is a large awareness about the importance of the usual residence concept, it is also true that its implementation is not always straightforward, and that details are sometimes not provided in the CES Recommendations.

11. First of all, a distinction should be made between the concept of enumeration and the one of population used for counting purposes. The enumeration may be understood as the act of counting/listing, naming each unit in turn; or as the process of collecting information

¹ Regulation (EC) No 763/2008 of the European Parliament and of the Council of 9 July 2008 on population and housing censuses and its implementing measures. Official Journal of the European Union L 218 p.14 on 13.8.2008.

about units, as implicit in the definition of census (c.f. CES Recommendations paragraph 19). In this report, the latter meaning is used, while the former is referred to as “population count” or “population base”.

12. In the context of a population census, a country is free to enumerate (in the sense of collecting statistical data on) any person in its territory, as well as to define population counts which meet national needs. For the latter task, the country may filter the total list of enumerated units according to defined principle(s) in order to select the persons to be counted in the aggregation process. For international comparison purposes, however, the population definition must be harmonised across countries.

13. In order to identify the population counts adopted in the country, besides a direct question, the questionnaire used a set of criteria. In fact, various principles may be followed to include or not a person in the population count, all referring to/including the census reference time (usually midnight of the census reference date):

- (a) the presence in the territory of the country;
- (b) having lived in the territory of the country for a given period;
- (c) the intention of living in the territory of the country for a given period;
- (d) the legal rights a person has to settle in the country (by citizenship, residence or visa permit, or any other legal system); and/or
- (e) the fact of being listed in a register (e.g., the population register).

The criteria listed above are independent from each other. A person may be present in a country, but not living there during the given period; (s)he can be present/resident without legal rights of staying; (s)he can be included in the population register even if is not present at the time of the census and has not lived in the country for longer than the defined period of time; etc.

The concept of usual residence is identified by three conditions:

- (a) the person has lived or intends to live in the country;
- (b) the duration of staying is at least one year;
- (c) the staying is without interruptions (continuous period of time),

where the concept of a “continuous period of time” should of course take account of the usual exceptions of short-term absences for such purposes as recreation, visit to friends, etc.

14. Another popular concept of population is the *de facto* population, which in fact corresponds simply to the application of the first principle in the list above (presence in the territory of the country at the census reference date). Often confused with the usually resident population, according to the Latin etymology, the *de jure* population should instead be based on the fourth principle (legal right of stay). This population would be composed by all persons that, at the census reference time, either hold the national citizenship, or are granted a residence permit or a visa (a more restrictive interpretation would limit the population to the national citizens). It should be noted that such concept would not necessarily require the presence or the residence of the person in the country, unless it is combined with the relevant principles set above.

15. The table 1 lists some of the population concepts which may be identified using the set of principles listed above. These principles do not necessarily define the geographical place to which a member of the population is allocated, but they do define who is included in, and who is excluded from, the population of a country. For instance:

- the usually resident definition allocates the person to the place of usual residence (within the country) or, in other words, a person is member of the usually resident population if and only if (s)he has a place of usual residence within the country;²
- the *de jure* definition does not formally require any physical place of usual residence (i.e., the population is composed of all national citizens regardless of where they actually live), although specifications may be given such as the official address in the country or abroad; or
- the rules for geographical allocation could be multiple, like when a person is included in the population of a country (again regardless of the actual presence in the country at any moment) because (s)he is listed in, for example, a Tax register, the registered address may refer to the place of his/her economic activity, or because (s)he is listed in the Population register, where the address is the one the person declared at the time of the inscription.

Table 1
Examples of definition of population concepts

Population concept	Principle 2:					Period	Modality
	Principle 1: having presence at census date	Principle 2: lived in the country	Principle 3: intention of stay	Principle 4: legal right of stay	Principle 5: listing in registers		
Usually resident		X	X			1 year	continuously
De facto / Present	X					none	none
De jure / (National)				X		none	none
Former usually resident		X				1 year	continuously
Registered					X	none	none
Legally resident		X		X		1 year	continuously
Legally present	X			X		none	none
Legally registered				X	X	none	none
Usually resident and present	X	X	X			1 year	continuously

² There are exceptions to this rule as well as problematic cases, as it will be clear in the next Section.

Therefore, being included in the population count according to these principles does not always univocally define a person's geographical allocation. There are indeed two conceptually different issues to understand: the first step is to clarify who is member of the population; the second — and subordinate to the membership — is to determine the geographical distribution. The usually resident population is one of the cases where there is a one-to-one relation between membership and geographical allocation.³

IV. Data

16. Fifty-one countries have replied to the UNECE survey (in brackets their UN code): Albania (ALB), Armenia (ARM), Austria (AUT), Azerbaijan (AZE), Belarus (BLR), Belgium (BEL), Bosnia and Herzegovina (BIH), Bulgaria (BGR), Canada (CAN), Croatia (HRV), Cyprus (CYP), the Czech Republic (CZE), Denmark (DNK), Estonia (EST), Finland (FIN), France (FRA), Georgia (GEO), Germany (DEU), Greece (GRC), Hungary (HUN), Iceland (ISL), Ireland (IRL), Israel (ISR), Italy (ITA), Kazakhstan (KAZ), Kyrgyzstan (KGZ), Latvia (LVA), Liechtenstein (LIE), Lithuania (LTU), Luxembourg (LUX), Malta (MLT), Montenegro (MNE), the Netherlands (NLD), Norway (NOR), Poland (POL), Portugal (PRT), the Republic of Moldova (MDA), Romania (ROU), the Russian Federation (RUS), Serbia (SRB), Slovakia (SVK), Slovenia (SVN), Spain (ESP), Sweden (SWE), Switzerland (CHE), Tajikistan (TJK), the former Yugoslav Republic of Macedonia (MKD), Turkey (TUR), Ukraine (UKR), the United Kingdom (GBR⁴) and the United States (USA).

17. Among the countries which replied, two (Bosnia and Herzegovina and the Former Yugoslav Republic of Macedonia) have not yet completed their census. Their responses have nevertheless been included, assuming that they will reflect the national practice once the exercise will be completed.

18. The screening of the replies has revealed some inconsistencies. Some of the responses have therefore been modified according to the understanding of the practice of the country, derived from a comprehensive reading of its answers. Nevertheless, several cases still remain doubtful. However, such data validation requires confirmation by the respondent countries, and that was not possible at the time of the drafting of this report. Therefore the figures presented in this report should be considered provisional.

V. Main results

A. Applied definitions of population

19. The usual residence is the concept of reference for the population count in the latest census round: 39 (76 per cent) out of 51 countries reported using the usually resident population concept, with a further two countries using a definition expanded to cover the legal or registered population as in the EU law. Thus, only one out of five countries has not labelled population counts based to some degree on the usual residence concept.

20. Multiple population counts are used in several countries: 19 countries have used two population counts and 5 countries (Greece, Hungary, Ireland, Russia and Switzerland) even

³ Using a mathematical terminology, having a "place of usual residence" in the country is a *necessary* and *sufficient* condition for the membership to the usually resident population.

⁴ Including Northern Ireland.

three. “Usually resident” population is declared to be the most important population count by 35 countries, the second most important being the “registered” population (7 countries). The other qualifying labels of population reported by the countries are: “present”, “legally resident”, “permanently resident”, “non permanently resident”, “apportionment”, “usually resident and present”, “usually resident, legal or registered”, “domiciled”, “household members”, “temporarily resident”, and “national serving abroad”. Some of these labels may be understood as referring to a specific (possibly subgroup of) population, and not as a concept used to represent the whole population of the country.

21. All the 51 countries reported that they produced a national population count based on the concept of usual residence, of which 34 (67 per cent) were fully compliant with the CES Recommendations, 14 (27 per cent) compliant with the concept of usual residence expanded to cover legal or registered residence like in the EU law, and the rest of the countries (Canada, Italy and the United States) still compliant but with some peculiarity. This outcome seems in contradiction with the initial statement about the quota of countries adopting the usually resident population. A possible reason is that behind the national label, the population concept adopted in practice may vary. A comparison based on the labels used at national level is thus quite difficult.

22. Using the set of questions explained in the previous chapter, it is possible to identify objectively the population counts which are based on the concept of usual residence, as well as on other concepts. As reported in the table 2, by strictly applying all the three criteria for usually resident population listed in the Section II, only 11 countries meet the requirements: Armenia, Azerbaijan, Georgia, Greece, Ireland, Montenegro, Portugal, Romania, Ukraine and the United Kingdom using a traditional census approach, and Estonia using a combined methodology. (This number is likely to increase once the classification of persons temporary absent as well as their intention of stay will be clarified with some countries.)

Table 2

Number and list of countries adopting selected population counts (defined according to the criteria in table 1)*

<i>Population count</i>	<i>Number (%) of countries</i>	<i>List of countries</i>
Usually resident	11 (22%)	ARM, AZE, EST, GBR, GEO, GRC, IRL, MNE, PRT, ROU, UKR
<i>De facto</i> / Present	8 (16%)	ARM, GRC, IRL, ITA, MKD, PRT, TJK, UK
<i>De jure</i> / (National)	0 (0%)	none
Former usually resident	4 (8%)	BLR, MDA, SVK, TJK
Registered	2 (4%)	DNK, GRC
Legally resident	2 (4%)	KGZ, RUS
Legally present	1 (2%)	KGZ
Legally registered	5 (10%)	HUN, LIE, SVK, SVN, SWE
Usually resident and present	5 (10%)	BIH, CYP, IRL, MLT, SRB
Others	28 (55%)	ALB, AUT, BEL, BLR, CAN, CHE, CZE, DEU, ESP, FIN, FRA, HRV, HUN, ISL, ISR, ITA, KAZ, LTU, LUX, LVA, MKD, NLD, NOR, POL, RUS, SVN, TUR, USA

Source: own computation from UNECE Survey 2013.

* Provisional results to be further validated.

23. The majority of countries have population concepts which need clarification or proper labelling. The results in the table 2 would certainly be modified if more “flexible” concepts of usual residence were to be dropped/extended, such as the duration or the continuity in time of the residence in the country, or the intention of stay. For instance, as shown in the table 3, most of the countries — but not all — use a period of at least 1 year in combination with “continuous time” for the population count considered the most important for the country.

Table 3

Number of countries by duration and modality of residence for the most important population count (population count 1)

Modality	Duration				Not required	Total
	Less than 3 months	At least 3 months	At least 6 months	At least 1 year		
Continuous	1	2	1	25		29
Most of the time			5	3		8
Not defined			1	3		4
Not required					10	10
Total	1	2	7	31	10	51

Source: own computation from UNECE Survey 2013.

24. Such differences between the number of countries reporting population counts based on the usual residence concept and that derived from the application of objective criteria are indicative of the intricacy of the concept which, although intuitive, faces a number of challenges when implemented. For instance, when it comes to the definition of the period of time, the countries using a traditional approach are in principle better placed to properly implement the concept of usual residence, while the countries with registers-based censuses are instead more at risk of adopting a time criteria defined for administrative purposes. Table 4 however shows that even countries with traditional methodology do not always comply with the 12-month criterion.

Table 4

Number of countries by census methodology and duration for the most important population count (population count 1)

Modality	Duration				Not required	Total
	Less than 3 months	At least 3 months	At least 6 months	At least 1 year		
Traditional			3	23	6	32
Registers based		2	2	2	3	9
Combined	1		2	6	1	10
Total	1	2	7	31	10	51

Source: own computation from UNECE Survey 2013.

B. Geographical allocation of usually resident persons within a country

25. So far, the analysis has focused on the national level. Israel, the Russian Federation and the United Kingdom reported to have applied criteria other than usual residence for the

geographical distribution of the total population of the country. In particular, the first has adopted the address of primary residence at the census day, while in the United Kingdom persons were regarded as being resident in institutions/collective living quarters if they had been living there or were intending to live there for more than 6 months.

26. In fact, the complexity of the concept of usual residence can raise doubts about the geographical allocation of specific groups of persons, and therefore particular care is required for a proper identification of their place of usual residence. The table 5 shows the number of countries where specific criteria were adopted for certain population groups. The most problematic category seems to be “students”, particularly those in tertiary education and studying within the country, for which three out of four countries have issued special provisions.

Table 5

Number of countries adopting specific criteria for the place of usual residence of selected population groups

<i>Category (sorted by decreasing number of cases)</i>	<i>Count</i>	<i>% of 51 countries</i>	<i>% in census 2000</i>
Students in tertiary education (International Standard Classification of Education (ISCED) levels 5–6) who are away from home while at college or university within the country	34	76	70*
Persons who work away from their homes during the week and return at weekends	28	62	57
Students in primary and secondary education (ISCED levels 1–4) who are away from home during the school term	27	60	70*
Children who alternate between two households	24	53	9
Persons who have been an inmate of a hospital or hospices, old persons in nursing homes, prisoners, juvenile detention centres, etc.	23	51	71
Persons who regularly lives in more than one residence during the year	23	51	64
Homeless or roofless persons, nomads	22	49	57
Students in tertiary education (ISCED levels 5–6) studying abroad but returning home at weekends	21	47	-
Persons in military service	19	42	52
Persons working for international organisations (not including diplomats or military forces)	12	27	-
Refugees and asylum seekers	11	24	-
Others:	4	9	-
• new-borns in the hospitals (BLR)			
• bargemen, i.e. persons living in a boat all the year for professional reasons (FRA)			
• persons without dwelling but with fictitious legal permanent residence only — so called administrative residence (SVN)			
• specific rules not corresponding to CES Recommendations (USA)			

Sources: UNECE Survey 2013 (text of the question: “There are various population groups for which some uncertainty may arise in defining their place of usual residence (CES Recommendations paragraph 162). For which of the following population groups were specific criteria adopted to define the place of usual residence? Indicate all that apply. For counts based on population registers, please consider criteria adopted by register authorities”); own computation from UNECE (2008) for the last column.

* No distinction in UNECE (2008) between students in primary/secondary and in tertiary education.

27. In comparison to the previous census round, in general the percentage of countries which have issued instructions has decreased, in particular for persons in institutions (–20 percentage points) and persons with multiple residence (–13 percentage points). On the contrary, the case of the children alternating between two households has received much more attention (+44 percentage points). The issuance of specific rules does not guarantee the classification of those population groups in compliance with CES Recommendations, nor does the lack of specific instructions necessarily imply difficulties. However, uniformity of rules of classification across countries would help the comparability of census results.

C. Inclusion/exclusion of selected population groups

28. Another important point is the inclusion/exclusion in the usually resident population of specific categories. The table 6 lists various population groups for which there is often some uncertainty as to whether or not they should be included in the usually resident population: students in tertiary education studying abroad, foreign military, naval and diplomatic personnel and short-term international migrants should be excluded. All the other 11 categories should be included, provided that the conditions of duration of residence are met.

29. It should be noted that no one category has been included by all countries (or conversely, has been excluded by all countries). This may be seen as a problem of coverage rather than of breach of the usual residence concept, although the inclusion of certain categories of persons may actually depend on the adoption of that concept. For instance, illegal migrants would not be part of the legally resident population, and therefore their exclusion would not be a problem if the population concept of reference were the legal right of stay. However, if the declared criterion is, instead, “usual residence” then they should indeed be part of the usually resident population.

30. The category closest to the inclusion in all countries is that of **homeless persons**. Despite the difficulties to collect information about them, homeless or roofless persons were included in all but three countries. Surprisingly enough, those three countries have carried out a census with combined methodology, whilst all the countries with a register-based census included the homeless.

31. The next most commonly included categories are those persons **who regularly cross a border for work or study reasons**. Among the countries which do not include cross-border workers are also the islands (Cyprus, Iceland and Malta), for which obviously this population group is less relevant, and therefore the percentage of inclusion could actually be higher. As for the students, according to CES Recommendations they should actually be excluded from the usually resident population (see CES Recommendations paragraph 162, item c); however, this is in contradiction with the classification of workers who are instead part of the usually resident population, while “behaving” at the same way. The bulk of countries seem instead to apply consistently the same rule, regardless of the reason for the crossing of the borders: 37 countries include both workers and students, 3 exclude them. Of the remaining 11 countries, 7 are fully compliant with the CES Recommendations because they include the cross-border workers and exclude the cross-border students, while for the other 4 the opposite applies.

32. Two other categories whose inclusion should be quite unambiguous are **holders of residence permits staying for at least one year, and national military and diplomatic personnel** located outside the country; however, respectively 20 per cent and 25 per cent of the countries did not include them in the usually resident population. Another surprising outcome is the exclusion of **persons living in remote areas**. While such people should nowadays be of limited concern for census taking in most of the European countries, even

countries with registers-based censuses have not included this category, which sounds very unlikely unless those persons do not comply with the national requirements about registration. At least for those countries with small territories, it is likely that the response to that specific item should be interpreted as “not applicable” rather than negative.

33. Some uncertainty about the interpretation of the CES Recommendations also seems to apply to **asylum seekers** and **refugees**. While CES Recommendations paragraph 175 clarifies that they should be considered as no different to any other person (thus subject to the criterion of duration of time continuously spent in the country), in about one third of the countries they are still excluded from the usually resident population, as had been previously recommended. Confusion about CES Recommendations implementation may also be the reason of the exclusion in 21 countries (41 per cent) of **foreign persons working for international organisations** who, unlike foreign diplomats and military forces, should actually be included in the total population count.

Table 6

Number of countries including selected population groups in the usually resident population

<i>Category (sorted by decreasing number of cases)</i>	<i>Count</i>	<i>% of 51 countries</i>	<i>% in census 2000</i>
Homeless or roofless persons	48	94	86
Civilian residents who cross a frontier daily to work in another country, but returning home every day or at weekends	44	86	-
Students in tertiary education who study in another country, but returning home every day or at weekends	41	80	-
Holders of temporary residence permit (and their families) staying in the country for more than 12 months	41	80	-
National military, naval and diplomatic personnel and their families, located outside the country	38	75	72
Persons living in remote areas	35	69	-
Merchant seamen and fishermen resident in the country but at sea at the time of the census (including those who have no place of residence other than their quarters aboard ship)	34	67	83
Persons who have applied for or been granted refugee status or similar types of international protection	33	65	67
Asylum seekers	30	59	52
Foreign persons working for international organisations (not including diplomats or military forces) located in the country	30	59	-
Nomads or other travelling people	24	47	55
Illegal, irregular or undocumented migrants	20	39	41
Short-term international migrants (staying in the country less than 12 months)	9	18	35
Foreign military, naval and diplomatic personnel and their families temporarily located in the country	7	14	23

Sources: UNECE Survey 2013 (text of the question: “Which of the following groups of persons were included in the total usually resident population? Indicate all groups that are included or attempted to include — even partially — in the population”); own computation from UNECE (2008) for the last column.

34. As for the **nomads** and other travelling people, the low share of countries including them in the usually resident population may simply reflect the operational difficulties typical of this difficult-to-reach population group. The methodology chosen for the census does not seem to be relevant, given that almost the same percentage of countries (about half) did not include them, regardless if their census was registers-based or traditional. The situation is even worst for another difficult-to-reach group, the **illegal migrants** (to be included according to CES Recommendations paragraph 174), who are not included in a large majority (60 per cent) of countries and in none of the nine countries with a registers-based census. For the category of **seamen**, the overall percentage of inclusion is higher (two thirds of all countries), but still revealing operational difficulties to identify this population group.

35. The coverage of this last category has also worsened over time. In **comparison to the census 2000 round**, as shown in the last column of the table 6, the larger change (in percentage points) regards in fact the seamen (–16 percentage points). On the other hand, the situation has remarkably improved for the short-term immigrants, who are now excluded in a much larger share of countries (–17 percentage points). For the asylum seekers, for whom the recommendations have changed, and for nomads the coverage has also improved (about plus 7–8 percentage points) across countries, while for foreign military personnel there is a larger compliance to CES Recommendations (+9 percentage points). In contrast, the situation for illegal migrants (for whom there were no clear recommendations for the 2000 round) remains problematic, as well as for national armed forces and refugees but to smaller extent.

36. In summary, no country fully follows the CES Recommendations regarding the inclusion/exclusion from the usually resident population of the listed categories. Six countries (Bosnia and Herzegovina, Georgia, Greece, Ireland, Portugal and Romania) include all 11 categories which should be part of the usually resident population, but they also include one or two that should be excluded; at the other extreme, Austria, the Czech Republic and Malta include only 3 out of those 11 categories (see tables in Annex (ECE/CES/GE.41/2013/10/Add.1)).

D. Population bases other than usually resident population

37. Additional population bases have been used in some countries (but not in the majority of cases). As shown in the table 7, the most popular addition is the one based on the place of work. The countries with more additional bases are Ireland and the United Kingdom, both with five additions, and the Czech Republic and Hungary, with three additional population bases each.

Table 7
Number and list of countries with additional population bases

<i>Additional population basis</i>	<i>Number (%) of countries</i>	<i>List of countries</i>
Persons with a workplace in an area	15 (29%)	AUT, AZE, CAN, CZE, ESP, FIN, GBR, HRV, HUN, IRL, ITA, NLD, NOR, SVN, USA
Students in an area	11 (23%)	AUT, AZE, CZE, ESP, EST, GBR, IRL, ITA, MDA, NOR, SVN
Visitors (non-residents) enumerated in an area at the time of the census	6 (12%)	ALB, CZE, GBR, IRL, ITA, ROU
Daytime population — persons usually present in an area during the day in the period Monday – Friday (in the week before the census)	2 (4%)	GBR, HUN
Others:		
<ul style="list-style-type: none"> • Population aged 15 or more, living in private households (CHE) • Short-term migrants (persons not born in the United Kingdom intending to stay more than 3 months but less than 12 months (GBR) • Population living in institutional households in an area (HUN) • Persons in private households (IRL) • Persons in non-private households (IRL) • Persons occupying collective living quarters (POL) • Homeless (POL) 		
None	26 (51%)	ARM, BEL, BGR, BIH, BLR, CYP, DEU, DNK, FRA, GRC, ISL, KAZ, LIE, LTU, LUX, LVA, MLT, MNE, PRT, RUS, SRB, SVK, SWE, TJK, TUR, UKR

Source: UNECE Survey 2013 (text of the question: “Other than the population counts produced for your census and covered in the previous questions, what other population bases did you use for the purpose of producing census tabulations? Indicate all that apply”).

38. Likewise, several other bases may be used for census tabulations: table 8 shows that a majority of countries have used additional bases other than persons. Ireland and the United States are the countries with the larger number of additional basis, followed by other 12 countries which have used four bases other than population: Albania, Austria, Bosnia and Herzegovina, Finland, Germany, Hungary, Kyrgyzstan, Liechtenstein, the Republic of Moldova, Portugal, Slovakia and Spain.

Table 8
Number and list of countries using bases other than persons

<i>Additional population basis</i>	<i>Number (%) of countries</i>	<i>List of countries</i>
Households in an area	38 (84%)	ALB, ARM, AUT, AZE, BEL, BGR, BIH, BLR, CAN, CYP, CZE, DEU, ESP, FIN, GBR, GRC, HRV, HUN, IRL, ISL, KAZ, KGZ, LIE, MDA, MLT, MNE, NLD, NOR, PRT, ROU, RUS, SRB, SVK, SVN, TJK, TUR, UKR, USA
Families in an area	29 (64%)	ALB, ARM, AUT, BEL, BIH, BLR, CAN, CYP, DEU, ESP, FIN, GBR, HRV, HUN, IRL, ISL, KGZ, LIE, MDA, MNE, NLD, NOR, PRT, RUS, SRB, SVK, SVN, TUR, USA
Dwellings in an area	40 (89%)	ALB, ARM, AUT, AZE, BEL, BGR, BIH, BLR, CAN, CHE, CYP, CZE, DEU, ESP, EST, FIN, FRA, GBR, GRC, HRV, HUN, IRL, ISL, ITA, KGZ, LIE, MDA, MLT, MNE, NLD, NOR, PRT, ROU, RUS, SRB, SVK, SVN, SWE, TJK, USA
Buildings in an area	20 (44%)	ALB, AUT, BGR, BIH, CHE, CZE, DEU, ESP, EST, FIN, GRC, HUN, ITA, KGZ, LIE, MDA, PRT, ROU, SVK, TJK
Others:		
<ul style="list-style-type: none"> • Federal Buildings and Dwellings Register (CHE) • Group quarters population in an area (USA) • Sewerage tanks by area (IRL) • Broadband by area (IRL) • Central heating by area (IRL) 		
None	7 (14%)	DNK, GEO, ISR, LTU, LVA, MKD, POL

Source: UNECE Survey 2013 (text of the question: “What other bases did you use for the purpose of producing census tabulations? Indicate all that apply”).

39. As a final remark, the United Kingdom has pointed out that “*measuring the count of homeless (that is 'roofless') persons proved difficult, and in practical terms no real attempt was made to do so. Estimates were made on the basis of those persons using day centres on census day. However, persons with no permanent place of usual residence who were recorded at an address on census night (that is the 'rootless') were regarded as being usually resident at that address*”, and the United States have warned that “*a lot of these terms and applications do not apply in the United States*”.

VI. Possible items for revision in the next census recommendations

40. Following the summary analysis in the previous chapters, the following items could be subject of discussion in view of the revision of the census recommendations:

(a) To clarify the strictness of the criteria of time duration and modality for the usual residence concept.

- (b) To provide a definition of legal residence and registered residence, and of other relevant population counts.
- (c) To clarify the relation between legal or registered residence and usual residence, and in particular that they could overlap in practice but they follow different principles.
- (d) To agree on rules for the choice of place of usual residence for problematic cases.
- (e) To clarify the rationale for inclusion/exclusion of selected population groups.

The above list is discussed in more detail in ECE/CES/GE.41/2013/11.

VII. References

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