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# ANALYSIS OF INTERNATIONAL MIGRATION ESTIMATES USING DIFFERENT LENGTH OF STAY DEFINITIONS

## Report of the UNECE Task Force on analysis of international migration estimates using different length of stay definitions[1]

This contribution aims to present the final report of the *UNECE Task Force on analysis of international migration estimates using different length of stay definitions* whose objective was to assess the impact on international migration estimates derived from the use of different duration thresholds to define usual residence

## THE TIME CRITERION IN THE DEFINITION OF INTERNATIONAL MIGRATION

How migration is defined as far as the time criterion is concerned directly affects the size of the estimate produced. Concretely, a broader definition of migration based on a shorter minimal duration of stay will include more moves and estimates will be larger.

Long-term international migration should be defined using the United Nations (UN) recommended definition of someone who changes his or her country of usual residence for a period of at least one year. In practice, the duration threshold used to determine who is considered a migrant can vary from country to country, making international comparability more challenging. The reasons why the time criterion varies between countries are linked to the use of different data sources and the existence of some specific national rules in data collection.

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[1] Paper presented by Michel POULAIN on behalf of the UNECE Task Force

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The UN recommendations on international migration statistics (Revision 1, UN 1998) include the following definitions:

32. Thus, an international migrant is defined as any person who changes his or her country of usual residence. A person's country of usual residence is stated 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 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.

34. The concept of country of usual residence is also used to determine who is a "visitor" for purposes of international tourism statistics. According to the Recommendations on Tourism Statistics (United Nations and World Tourism Organization, 1994), "a person is considered to be a resident in a country if the person: (a) has lived for most of the past year (12 months) in that country or (b) has lived in that country for a shorter period and intends to return within 12 to live in that country" (para. 24). An international visitor is defined as "any person who travels to a country other than that in which he/she has usual residence but outside his/her usual environment for a period not exceeding 12 months and whose main purpose of visit is other than the exercise of an activity remunerated from within the country visited" (para. 29). The category of international visitors includes tourists (overnight visitors) and same-day visitors (also known as "excursionists") (para. 30).

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 (12 months). Therefore, a long-term migrant should be defined as a person who moves to a country other than that of his or her usual residence for a period of at least a year (12 months), so that the country of destination effectively becomes his or her new country of usual residence.

37. In addition, because one of the new features of international population mobility is the increase of short-term international movements of people for purposes other than tourism, it is important to gather information on some of the persons who spend less than a year in a country other than that of their usual residence. Short-term migrants are therefore defined as persons who move to a country other than that of their usual residence for a period of at least 3 months but less than a year (12 months) except in cases where the movement to that country is for purposes of recreation, holiday, visits to friends and relatives, business, medical treatment or religious pilgrimage. For purposes of international migration statistics, the country of usual residence short-term migrants is considered to be the country of destination during the period they spend in it.

**Long-term migrant** A person who moves to a country other than that of his or her usual residence for a period of at least a year (12 months), so that the country of destination effectively becomes his or her new country of usual residence. From the perspective of the country of departure, the person will be a long-term emigrant and from that of the country of arrival the person will be a long-term immigrant.

**Short-term migrant** A person who moves to a country other than that of his or her usual residence for a period of at least 3 months but less than a year (12 months) except in cases where the movement to that country is for purposes of recreation, holiday, visits to friends and relatives, business, medical treatment or religious pilgrimage. For purposes of international migration statistics, the country of usual

residence of short-term migrants is considered to be the country of destination during the period they spend in it.

The "Conference of European Statisticians Recommendations for the 2010 Censuses of Population and Housing" (UN, 2006) provided definitions that are consistent with those of the 1998 UN recommendations on international migration statistics, taking into account also the intention of staying for those who changed residence in the year before the census:

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.

160. A person's country of usual residence is the country in which the place of usual residence is located..."

As conclusion of these international recommendations the most important time criterion is the 12 months' rule to identify a long-term international migrant while the 3 months' rule is the base to identify short-term international migrant. As explained by HERM (2006), an important change appeared in these recommendations revised in 1998 compared with the previous ones published in 1980. Following the later, 'long-term immigrants' were defined as 'persons who enter the country with the intention of remaining for more than one year and who must never have been in the country continuously for more than one year, or must have been away continuously for more than one year' (UN, 1980). Long-term emigrants were defined similarly from the perspective of departure. Short-term migrants were identified on the basis of length and purpose of stay and characterised as 'person(s) who enter the country with the intention of remaining for one year or less for the purpose of working at an occupation remunerated from within the country and who must never have been in the country continuously for more than one year, or having been in the country continuously for more than one year must have been away continuously for more than one year since the last stay of more than one year' (UN, 1980). Accordingly in the 1998 revision of the recommendations, the time criterion "more than one year" has been replaced by "at least one year" for the definition of long-term migrant and the 3 months criterion for the minimal stay of short-term migrant has been introduced.

## HOW THE TIME CRITERION IS APPLIED USING DIFFERENT TYPES OF DATA SOURCES?

Different types of data sources are used to produce statistics on international migration. These are largely discussed in the two main contributions that are the ILO book on International Migration Statistics (Bilsborrow et al. 1997) and the THESIM book (Towards Harmonised European Statistics on International Migration, Poulain et al. 2006). Broadly speaking, there are two main categories of data sources: statistical (censuses and surveys) and administrative (population registration system, residence permit databases...). Although the systems and sources used by countries involved in the Task Force shared a degree of flexibility in terms of migration definition, they differ greatly in approach as far as the time criterion used is concerned and the situation could vary when considering different groups of citizenship, e.g. nationals, EU citizens and non-EU citizens. It is obvious that these criteria are more often determined by administrative rules than by statistical methods.

Among the twelve countries involved in the Task Force[2], none is using census or a general survey like the Labour Force Survey to produce their annual international migration estimates and only two are using a specific statistical data collection at national border gates: Australia (for both immigrations and emigrations) and the UK (for both immigrations and emigrations but on sample base only). In both countries, arriving travellers have to report in which country they have lived for the last 12 months and about their intention to stay in the country for less than 12 months or at least 12 months. In the UK, the same questions are asked of departing travellers. In Australia on the other hand, the duration of stay in the country is calculated at the time of leaving the country at the border crossing. Similarly, for those returning from abroad, the duration of absence is also calculated at the time of return at the border crossing. In all other countries, the figures are produced based on administrative records generally extracted from a population registration system or a migration information system (in Switzerland) that is more specifically devoted to the management of the rights to reside for foreigners.

Generally, five types of data collection methods are found:

- <u>Self-reported information on duration of stay in the country based on specific questions asked in census</u>, general survey like LFS or other household survey;

- Self-reported intended duration of stay or absence after the current border crossing obtained through administrative border control or border survey;

- Registrations of persons coming from abroad and deregistrations of those leaving for abroad in the population registration system based on their intention and following specific administrative rules including or not a time criterion;

- Ex-post calculation of the duration of stay or absence based on administrative records of border crossing or administrative registration and deregistration in the population registration system and obtained by linking the current move or (de)registration with the previous one;

- Duration of validity of residence permit (cumulated duration for the first and renewed permits) for foreigners needing such a permit in order to reside in a foreign country more than 90 days.

The duration of stay information can be based on either intention (how long an individual intends to move for) or on retrospective de facto information (how long an individual has lived in their new country of residence).

When exploring alternative migration definitions, we should keep in mind that the need for both timeliness and reliability may be regarded as paramount for policy support. Intentions information is inevitably more timely because the identification of migrants is immediate, while retrospective information is more accurate as intentions are known to change. When the choice of a time criterion is concerned – e.g. between three or twelve months – we have to consider that sudden changes in economic conditions have a more immediate impact on temporary migrants than on permanent migration. Nevertheless, including shorter lengths of stays leads to higher number of migrants but also to more variation in the series. Also, if data are based on intention, we should consider that individuals who intend to stay for shorter periods are more likely to change their plans, which makes the data collected based on intention less reliable. Using retrospective information means there is an inevitable time

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[2] The Netherlands, Norway and UK participated only in the first phase, Australia, Belgium, Denmark, Estonia, Russia and Sweden in the second while Austria, Slovenia and Switzerland were involved in both.

lag in when estimates can be produced as it is necessary to wait twelve months after the end of the reference period in order to follow the twelve months rule.

When using a population registration system, international migrations are identified through registrations and de-registrations following specific administrative rules that often include a self-reported intention that could be linked with a precise time criterion for registration or deregistration. Such an administrative database allows collecting detailed information on immigrants (those who register coming from abroad) and emigrants (those who deregister for abroad). Nevertheless, some problems could result as the time criterion used is fully dependant on national administrative rules and still linked to intention. In several countries, these administrative databases allow computing ex post the duration of stay or absence till the next exit or return, if any. Evidently, such information helps following with precision the 'at least one year' criterion but data are only available one year after the end of the period of reference of the data collection. In the international recommendations for international migration statistics, there is a unique recommended definition for international migration but no recommended tool to collect these data, be they statistical or administrative. As explained above, each data collection system presents weaknesses linked to timeliness and/or reliability.

## ANALYSIS OF THE DISTRIBUTION OF DURATIONS OF STAY OR ABSENCE

The first step of the analysis is devoted to the distribution of the durations of stay and absence day by day. Seven countries provided such data: Austria, Belgium, Sweden and Switzerland up to 5 years while for Australia and Denmark the data cover only the first year. Statistics Austria explained that, due to administrative procedure, the data provided show a weekly effect and accordingly they suggested doing a 7 days moving average (Figure 1). Estonia also delivered such data but the number of migrations is so small that figures for most durations by number of days are zero.

Our first observation concerns the large variability of distribution shapes and levels.

For all countries except Austria, the data are obtained through similar population registration systems. When considering annual figures and controlling these for differences in the total population size, two countries, Austria and, to a lower extent, Switzerland (for foreigners only), present relatively higher values. Such differences could be explained by a shorter period for compulsory (de)registration in these countries (8 days) and a stricter application of administrative rules, a situation that should also apply in Germany and in Slovenia.

Figure 1 shows the daily distribution up to 730 days (2 years) for Belgium, Sweden and Denmark. These are annual averages controlled for the population size.

**Figure 1. Distribution of the durations of stay (annual average) for Belgium (2001-2004), Denmark (2001-2008) and Sweden (2001-2007).**

**(annual average ratio controlled for the population size)**
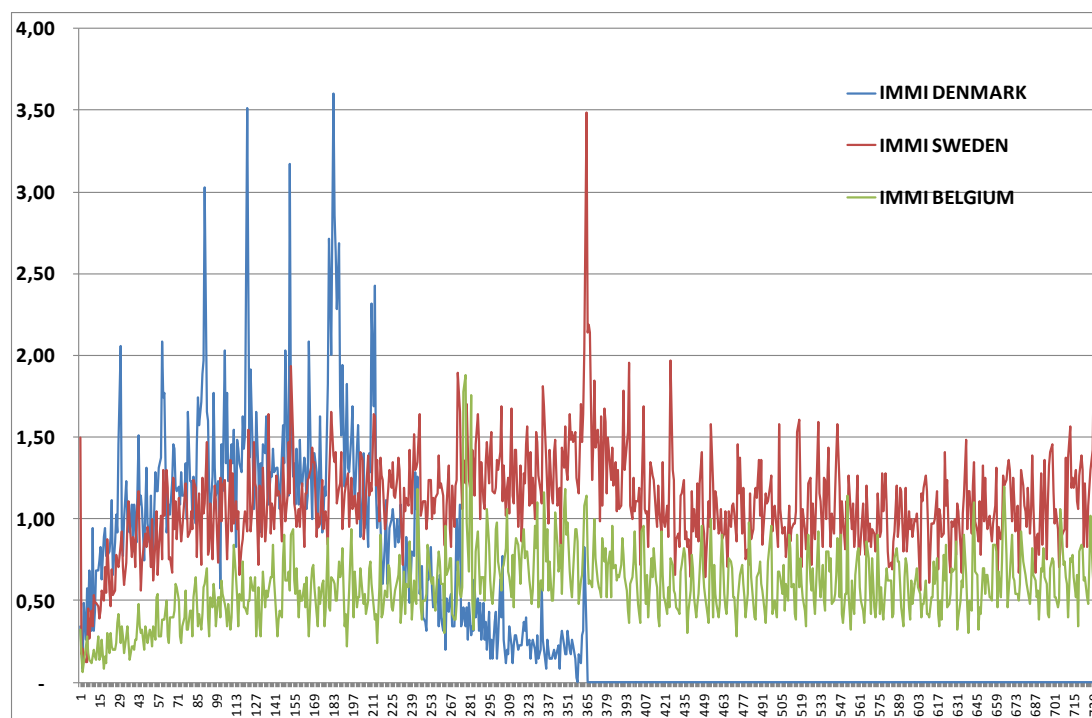


The analysis of these three data series with daily distribution as well as the one of Austria confirms that the distribution of duration of stay for immigrants in a given country is largely dependent on the specificity of the data source and the national rules that apply. The impact of the maximal duration of stay that is allowed without registration is important but by evidence the level of observance of these administrative rules also plays a role. Moreover some countries like Austria and Sweden show important peaks in the distribution for 91 days (3 months) and 365 days (one year) that are explained by the systematic deregistration of foreign immigrants at the expiry of their residence permit when the latter is not renewed.

**CONCLUSION**

The UN definition of long-term migration refers to individuals who change their country of usual residence for a period of at least one year, a definition also included in the recent EU Regulation on statistics of international protection and migration n°862/2007. Additionally, the UN recommendations introduced the concept of short-term migration for counting migrations for work that last three months and less than one year, while those less than three months are considered as visits.

Within this study, the impact of the two UN recommended migration definitions has been investigated. As is already well known, using a broader definition of migration, with a shorter time threshold, inevitably results in larger estimated flows. However, the relative losses between the two definitions investigated, following the two normative time criteria of 3 and 12 months recommended by the UN, vary largely between the countries under study, as shown in Tables 2a and 2b.

This investigation confirms the difficulty to ensure the comparability of international migration statistics at international level. Not only do the data sources differ from country to country, but also the time criterion applied in order to identify international migrants and the way statistical data are processed afterwards are different. The present exercise demonstrated that, even with the support of detailed metadata, the comparability of data available on international migration is hard to ensure because of the existence of nationally-specific approaches. In fact, the Task Force identified five different ways to obtain the duration of stay for an immigrant or the duration of absence for an emigrant, and they do not give equivalent results. Information based on intention is different from that computed ex-post based on border control. Total duration of validity of residence permits could over-estimate the de facto duration of stay and, in some cases, under-estimate it. When the duration is based on registration and deregistration in administrative databases, applied administrative rules differ between countries. Moreover, the strict application of these rules is far from being achieved in all countries.

A limited number of similar patterns have been found for the detailed daily distribution of durations of stay/absence between countries and groups of citizenship. Among others, the Task Force found similarities between distribution of the duration of stay of foreigners and duration of absence of nationals.

For normative reasons, the UN recommendations have chosen two time thresholds of 3 months and 12 months in order to distinguish short term migrants and long term migrants from visitors and tourists.

For countries considering the date of expiry of non-renewed residence permits as end of a period of stay, peaks for exact duration are observed at 3 and 12 months. The same problem emerges for intended durations of stay or absence that are rounded to exactly 12 months. Accordingly an important question emerges that is related to the inclusion or not of these persons in short-term or long-term immigrants. The Task Force recommends that in countries where such peaks emerge a careful evaluation be made of: (i) the relation between duration of validity of permits and actual duration of stay or (ii) the relation between intended duration of stay or absence and actual durations. National expert knowledge or ad hoc scientific investigations may help in allocating these specific groups of international migrants (those with exactly 12 months validity of their residence permit and those who intend to stay abroad or in the country for exactly 12 months) to either of the two categories of short-term and long-term migrants. The recommended international definitions need to be interpreted and applied at national level but the national statistical authorities are best placed to do this, based on the specific national situation, and on the availability and operation of the data sources available in that country. When dealing with intended duration of stay or absence rounded to exactly 12 months the experience of Australia can be usefully examined[3].

Data on long-term migrants are more consistent and real efforts have been made by countries during recent years to improve the availability, reliability and international comparability of these data.

There is an increasing need for information on short-term migration to support policy development and monitoring. Accordingly real efforts must be made to collect reliable data in that direction. In the case of migration of non-EU citizens to EU Member States, this need is met to some extent by a collection of residence permit data under the EU

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[3] Three quarters of foreigners entering Australia with an intended duration of stay of exactly 12 months are considered as short term immigrants and the last fourth only as long term immigrant. For those with usual residence in Australia and leaving the country with an intended duration of absence of exactly 12 months two thirds are counted as short term emigrants and the last third as long term emigrants.

Regulation on migration statistics. More generally though, data on short-term migrants may be particularly problematic and seem very difficult to compare in terms of levels; possibly only trends can be identified at national level.

The existing definition of short-term migration based on a stay of at least 3 months but less than 12 months corresponds closely with the 90 day threshold used in many countries to define whether a stay can be covered by a visitor visa or whether a residence permit is required.

A topic of growing importance is circular migration (EMN 2011). Defined by the EMN Glossary as "a repetition of legal migrations by the same person between two or more countries", circular migration is badly captured by official statistics and often ignored – therefore the scale of circular migration is difficult to estimate. By its nature circular migration is particularly difficult to measure as short-term residence may be subject to little or no administrative recording, particularly if permission to reside has already been granted in the context of a previous stay. Innovative methodologies will need to be examined and applied in order to better capture circular migration in official statistics.

It is important that the existing definitions of short-term and long-term migration, as well as any new definitions relating to circular migration, should be implemented in a coherent and consistent way. Therefore, the Task Force recommends preparing a proposal for a common international statistical definition of circular migration. This should take into account the needs expressed by key statistics users for information on circular migration, as well as any available data from ad hoc studies into this phenomenon. Circular migration may need to be defined in terms both of duration of stay and a repetition of the change in place of usual residence. The potential implications on other population statistics concepts of this circular migration definition will need to be considered.

More generally, the Task Force recommends preparing guidelines to facilitate the implementation by member countries of the internationally recommended definitions at national level. These guidelines should build upon the national practices and the research summarized in this report, providing examples of how the international definitions of place and change of usual residence are actually applied to available national data sources. It may be proposed, for example, that the criterion of "living continuously for at least the last 12 months" might, in practical application, be replaced by the concept of "living for most of the last 12 months". However, it will be for the national statistical authorities to apply these guidelines as they think best, taking into account national circumstances, with the overall aim being to ensure that the data correspond as closely as possible to the existing international definitions.

**REFERENCES**

Bilsborrow Richard, Greame Hugo, Oberai A. and Zlotnik Hania (1997), International migration statistics, Guidelines for improving data-collection systems. International Labour Office, Geneva

European Migration Network (2011). Temporay and Circular Migration: empirical evidence, current policy practice and future options in EU Member States, European Commission, Luxembourg, October 2011, 67 p.

EC Regulation N° 862/2007 of the European Parliament and of the Council of 11 July 2007 on Community statistics on migration and international protection and repealing Council Regulation (EEC) N° 311/76 on the compilation of statistics on foreign workers. Official Journal of the European Union, 2007-07-31, n° L 199, pp. 23-29

Herm, A. (2006). Recommendations on International Migration Statistics and Development of the Data Collection at an International Level, in Poulain et al. (eds) THESIM. Towards

Harmonised European Statistics on International Migration. Presses Universitaires de Louvain, Louvain-la-Neuve, pp. 77-106.

Poulain, M. et al. (eds) (2006). Towards Harmonised European Statistics on International Migration. Presses Universitaires de Louvain, Louvain-la-Neuve.

United Nations (1980), Recommendations on statistics of international migration. Statistical Papers, No.58. No. E.79.XVII.18.

United Nations (1994). Recommendations on Tourism Statistics (UNDESA/UNWTO, 1994).

United Nations (1998). Recommendations on Statistics of International Migration, Statistical Papers Series M, No. 58, Rev. 1. United Nations Department of Economic and Social Affairs (UNDESA), Statistics Division, New York.