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Guidelines for Exchanging Data to Improve Emigration Statistics

Prepared by the Task Force on
Measuring Emigration Using Data Collected by the Receiving Country

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Preface

The joint United Nations Economic Commission for Europe (UNECE) / Statistical Office of the European Union (Eurostat) Task Force on Measuring Emigration Using Data Collected by the Receiving Country was set up in 2005 by the Bureau of the Conference of European Statisticians to improve the use of harmonized concepts and definitions of migrants, and to develop guidelines on how to measure emigration through data on stocks and flows in host countries.

The *Guidelines for Exchanging Data to Improve Emigration Statistics* are the main output of the work of the Task Force. They were discussed at the 2006 and 2008 UNECE/Eurostat Work Sessions on Migration Statistics, and endorsed by the Conference of European Statisticians at their June 2009 meeting, with the provisional title "Guidelines on the Use and Dissemination of Data on International Immigration to Facilitate their Use to Improve Emigration Data of Sending Countries".

The guidelines were prepared by the following members of the Task Force (in alphabetical order):

- Enrico Bisogno, UNECE
- Marcel Heiniger, Switzerland
- Anne Herm, Estonia
- Margaret Michalowski, Statistics Canada (chair of the Task Force)
- David Thorogood, Eurostat

The guidelines are based on the results of a data exchange exercise organised by the Task Force in 2006, with the contribution of the following experts:

- Albania: Emira Galanxhi
- Australia: Garth Bode and Patrick Corr
- Canada: Margaret Michalowski
- Czech Republic: Bohdana Hola
- Estonia: Anne Herm
- Finland: Matti Saari
- France: Catherine Borrel and Jacqueline Perrin-Haynes
- Georgia: Alexander Vadachkoria
- Italy: Domenico Gabrielli, Costanza Giovannelli, and Enrico Tucci
- Kazakhstan: Yerbolat Mussabek
- Norway: Lars Ostby, Paul Inge Severeide, Halvor Stromme and Kåre Vassenden
- Poland: Zofia Kostrzewa and Dorota Szaltys
- Portugal: Joao Peixoto and Claudia Pina
- Russian Federation: Olga Chudinovskikh, Liudmila Eroshina, Marina Rakhmaninova
- Spain: Milagros García and Alicia Padilla Gomez
- Switzerland: Werner Haug and Marcel Heiniger
- The Former Yugoslav Republic of Macedonia: Bojkica Markovska
- United Kingdom: Emma Wright
- United States: Kevin Deardorff

The report of this data exchange exercise is presented in Annex B.

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1.   Introduction

International migration is the change of place of residence from one country to another. It consists of persons who leave a country in order to reside in another country. This movement affects the population of the two countries and should be recorded twice, once as immigration in the receiving country and once as emigration in the sending country. However, there is a certain asymmetry between data availability on immigration and emigration, for two main reasons:

(1) Departures tend to be less well recorded than arrivals as most governments are reluctant or unable to closely monitor the exit of persons from their territory, especially if the emigrants are national rather than foreign citizens. Moreover, people do not have much incentive to notify the authorities of their departure as there are no benefits to be gained.

(2) It is difficult to count persons leaving the country from a statistical point of view because of their absence. This applies to both flow and stock measurements. Censuses and sample surveys, which collect information on resident population, have obvious difficulties in counting absent persons, especially when no member of the household is living in the country of origin anymore.

Taking into account these limitations, the present guidelines explore the possibility of compensating the weaknesses of emigration data in the sending country by using existing immigration data in the receiving country. Countries usually have some immigration data, derived from administrative sources (population registers, aliens registers, registers of permits of stay, or data from border cards) or from population-based data collections, such as population censuses or household sample surveys. Immigration data collected by receiving countries may, however, have some limitations, due to definition, coverage or accuracy problems. Despite these problems, immigration statistics are generally considered more reliable as compared to emigration statistics for a given country. This does not mean that for a given flow between two countries, the immigration figure from the receiving country is systematically more reliable than the emigration figure provided by the sending country. Nevertheless, it seems reasonable to conclude that for most countries, immigration statistics from receiving countries are a promising potential source of statistics on their emigration – either to estimate missing data or to improve existing figures.

The first objective of these guidelines is to provide guidance to those countries considering improving their emigration data by using immigration data of receiving countries. For this reason, different information needs for emigration data are analysed and indications are provided on how to use properly other countries' immigration data.

Secondly, the attention of countries producing immigration data is drawn to the fact that countries of emigration are an important user of their data. Therefore, when producing immigration data, countries should pay attention to data collection, processing and dissemination so that their data can also better fit the information needs of such users.

Thirdly, some suggestions are given to international organizations working in the field of data collection on international migration. Collection and dissemination of statistical data on international migration are usually centered on immigration, while some additional efforts could be made to meet the information needs of emigration countries more effectively. For example, immigration data of countries could be collated and disseminated also in terms of countries of origin.

2. Different needs for emigration data and various typologies of emigrants

Different types of migrants may be identified according to specific characteristics of migrating people. The following categories are particularly relevant for analytical and policy purposes since they often correspond to specific information needs. Moreover, from a statistical point of view, such typologies are significant because coverage and accuracy of available statistical sources are typically different for the various categories. In particular, the following broad categories of migrants can be identified:

- Nationals and non-nationals (foreigners), on the basis of citizenship;

- Native-born and foreign-born, on the basis of country of birth;

- Long-term and short-term migrants, on the basis of duration of stay abroad (i.e. long-term = one year and more, short-term = more than 3 months and less than one year);

- Regular and irregular migrants, on the basis of their legal status regarding entry and stay in the host country.

By using these classification criteria, various groups of international migrants can be established corresponding to different information needs. In particular, looking at international migration from the perspective of countries of origin, there is a wide range of purposes for which emigration data can be used. Individual countries will have different uses for such data depending on their specific needs to understand emigration processes.

2.1 Population estimates and complete national demographic accounts

Emigration has demographic effects and is therefore a significant factor in national demographic accounts. Measuring annual levels of emigration, as well as knowledge of emigrants' main demographic characteristics such as age and sex, become crucial for accurate and reliable population estimates within a country's demographic accounting system. The importance of emigration data to produce population estimates is especially high whenever a country displays significant outflows. This may occur in a variety of cases, e.g. if the country is strongly integrated into the global economy, if it belongs to a supranational union with a free movement regime or if it experiences periods of economic hardship.

Types of emigrants for which information is needed: **long-term emigrants**.

2.2 Emigration of country's immigrants

Return migration, i.e. the (voluntary or involuntary) movement of immigrants back to their countries of origin or habitual place of residence, constitutes a steadily rising proportion of emigration for many countries. Moreover, for an ever-increasing number of individuals, international migration is not a permanent move. Many immigrants either frequently return to their countries of origin

(circular or repeat migration) or use the initial host country as a stepping-stone to another one (transit or onward migration). The question of who stays and for how long is important because it can have a major impact on the net addition made to a host country's population by immigration. It also affects, via the selective nature of the process, the quality of the immigrant stock and touches upon issues such as immigrant retention, adjustment or integration. Having emigration data may facilitate the design or the evaluation of a country's immigration policy with respect to the retention of immigrants (non-nationals and foreign-born nationals).

Types of emigrants for which information is needed: **long-term emigrants by citizenship and/or country of birth**.

2.3 Information on outflows of nationals and on nationals residing abroad

Owing to increasingly connected labor markets and social networks, it is important to have information on those nationals leaving the country. However, given the increased freedom of movement for nationals, this component of migration outflows is increasingly difficult to capture.

Globalization has lead to a renewed interest in diasporas or transnational communities, i.e. ethnic or national groups settled permanently in countries other than where they were born. Countries are naturally interested in having information about their nationals residing abroad. Issues of citizenship, nationality and identity necessitate some knowledge of emigrant populations as does the increasing awareness of the impact of migrant remittances on the economy of the sending country. In some countries there is also need to identify nationals living abroad in terms of pensions and support once they leave the labour force.

Many countries today do not have a precise picture of the countries of residence of their expatriates, the exact magnitudes of persons who have left or the characteristics of their citizens living abroad (e.g. duration of stay abroad, level of qualification, occupation or branch of industry).

Types of emigrants for which information is needed: **national emigrants by duration of stay**.

2.4 Information on specific groups of emigrants

Globalization has increased the mobility of human capital and highly skilled individuals as knowledge is becoming an integral part of the global economy. The out-migration of educated and skilled individuals with extensive work experience represents the shrinkage of the sending country's qualified human resource base unless there is an inflow of similarly skilled people. Concern about this "brain drain" and the resulting loss of economic potential requires detailed information about the emigration of trained and educated individuals and the flows of highly skilled human capital.

Types of emigrants for which information is needed: **national emigrants by occupation and educational attainment**.

2.5   Short-term emigration

Thanks to the development of formal and informal networks of communication, international migration is often of a very short-term nature, due to seasonal periods of work, or for short-term work projects/assignments or because of legal restrictions to longer-term stays. Short-term emigration can play an important role for many countries and economies but, given its nature, is even more difficult to capture from a statistical point of view since it does not involve a change in the place of usual residence.

Types of emigrants for which information is needed: **short-term emigrants by citizenship**.

3. National data sources on emigration

Generally, international migrants are difficult to count in their country of origin because of their absence. It is more difficult for registration systems and population-based data collections to cover emigration than immigration, and many countries report difficulties related to the collection of data on emigrants. There are countries that do not collect this information at all. But even for countries with fairly reliable migration statistics, emigration continues to be one of the most difficult components to collect data for.

If available at all, emigration data come from a variety of sources not always specially designed for migration-related analyses. They are collected by different bodies and often support the country's own national legislative, policy and administrative imperatives. The main sources may be summarized as follows:

- Population registration systems, including both centralized and local population registers that record individuals' exits from the national territory;
- Other administrative (special-purpose) registers or databases on foreigners, such as aliens registers, permits of stay registers or registers of asylum seekers;
- Passenger surveys and border card systems that collect information on cross-border movements;
- Household sample surveys that include questions pertaining to emigrants even though emigration is not their main focus;
- Special emigration surveys, such as household surveys of emigrants, which obtain information by indirect means, e.g. through inquiries in the dwellings where emigrants used to live;
- Population censuses that include specific questions on residents temporarily abroad and/or previous residents that have left the country to live abroad;
- Registers of nationals living abroad.

Each data source is in some way limited with respect to its coverage of emigration. These limitations are the result of the multiple purposes these data sources have been designed to serve. Most data on emigrants are derived from administrative records and therefore strongly reflect the policy approach of the country towards migration.

Data on outflows are highly variable and their accuracy depends upon how complete the coverage of emigration is. In general, fewer sources are available on stocks of emigrants.

Administrative data sources covering the whole population represent an important source of statistics on emigration flows. Continuous recording and identification of emigration is based on certain criteria and is linked to the deletion from the register. In residence permit systems, emigration may equate with the expiry of the permit. However, there are limitations regarding coverage of outflows in administrative registers, which are primarily linked to the self-

declaration of international movements and the often non-compulsory compliance of individuals to deregister.

Among other data sources, border card collection has a greater likelihood of capturing data on more emigrants than registers. In practice, however, border statistics rarely provide the best measures of outflows as people are subject to different degrees of control depending on their citizenship, mode of transport and port of exit. Moreover, border cards are often based on intentions about length of stay and the country of destination may change over time.

Household-based surveys and censuses encounter problems in collecting reliable statistics on outflows since they cannot fully cover the movements of persons and/or households that have left the country by the time the inquiry is carried out. This also applies to special surveys, which address questions to a household member on how many usual members of the household have left or are currently abroad.

4. Using other countries' immigration data to improve emigration data

4.1 Main sources on immigration and their relevance to improve emigration data

In broad terms, the availability of migration data varies according to the statistical sources available in each country. Table 1 depicts the general situation of data availability according to source typology[1]. As emigration data are less often available than immigration data, countries may consider the option to use immigration data from receiving countries to produce or improve emigration data.

TABLE 1 - Availability of migration data by source type

	FLOW DATA		STOCK DATA	
	Immigration	Emigration	Immigration	Emigration
Population Census	x		x	
Household sample survey	x		x	
Border sample survey	x	x		
Population register	x	x	x	
Permits of stay	x		x	
Aliens register	x	x	x	
Passenger cards	x	x		

The various statistical sources on immigration are reviewed below to consider their relevance when being used by sending countries to produce or improve emigration estimates.

Population censuses

The census provides a snapshot of the population of a country at a given point in time. The census in principle enumerates the total resident population, thus deriving statistics on all population groups relevant for international migration, irrespective of their citizenship, country of birth or even legal status. The population census has many important features for the measurement of immigration:

- In many countries, it is one of the few sources where all three concepts of migrant origin (country of citizenship, of birth, of previous residence) are used simultaneously. It is therefore possible to assess the differences between these different concepts.

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[1] This represents a general overview. Certain sources, under specific conditions, may be able to provide more statistical data on emigration or immigration, such as emigration modules that are sometimes included in population censuses or household surveys, thus providing some data on emigration.

- It collects information at individual level, thus allowing to cross-classify migration characteristics with other variables such as age, sex, employment, education, and household composition.

- It makes available important information on small population groups and small geographical areas.

Given its nature, the population census is particularly important for stock figures, since information on country of birth and country of citizenship are almost universally collected. Additional and important information on population groups relevant to international migration can be collected if questions on country of birth of parents, citizenship at birth and/or multiple citizenships are also included in the census form.

The population census can also provide data on migratory inflows, when questions on 'place of residence one year before the census' or 'period of arrival in the country' are asked. While this information can be effectively used to obtain statistics on recent inflows and on individual characteristics of immigrants, there are some limitations for the census as source of inflow data:

- It is carried out at long intervals, which means that data are rapidly out of date.

- It only counts immigrants that are still living in the country at the time of the census, thus excluding those immigrants that have emigrated before the census date.

- It is focused on migrants rather than migration events, i.e. it cannot supply full coverage of migration events.

Household sample surveys

Similarly to the population census, household sample surveys generally cover the total resident population, thus including all population groups relevant to international migration. Regularly scheduled household sample surveys, such as the Labor Force Survey (LFS), can be effectively used to derive general information on immigration, in terms of both flows and stocks. When questions such as 'place of residence one year before' or 'year of arrival in the country' are included, estimates of migration inflows can be derived, while important information on stocks of immigrants can be obtained if questions on 'country of birth', 'citizenship', 'citizenship at birth' or 'country of birth of parents' are included.

Sample frame, sample design and sample size of household surveys pose specific challenges to the measurement of immigration:

- The sample frame should be regularly updated to include newly arrived immigrants, if available. This is particularly crucial to obtain reliable estimation of immigrants' stocks.

- The sample design should make sure that population sub-groups and areas particularly relevant for international migration are taken into account in the sample.

- The sample size should be big enough to ensure statistical significance of estimates, particularly when estimates for specific migration flows and stocks must be calculated, as the share of migrants in the total population is generally relatively small.

The knowledge of the host country language can also play an important role. Immigrants who are not proficient in the local language may be more likely not to respond, or to provide incorrect responses.

Border sample surveys

Border sample surveys are carried out on people crossing the borders of a country in both directions, and they can provide important information on migration when questions are included on the origin/destination of the traveler and the expected duration of stay in the destination country[2]. In principle, the population universe comprises both nationals and non-nationals, irrespective of their legal status.

The focus of this kind of survey is on international passengers and it is usually carried out to collect information not only on migration but also on travelers moving for other reasons such as tourism or business. Since migrants are a small share of international passengers, an adequate size of the sample becomes crucial in order to get reliable estimates of migratory flows. Importantly, this type of survey can be carried out only where there are a limited and well-known number of border crossings, while countries with long land borders would have problems in conducting such surveys. Moreover, it can only measure people's intentions to change their country of residence for 12 months or more. Thus, what is measured is the self-stated intention that can differ from the subsequent reality, leading to biased results in the estimates of migration flows.

Population registers

Population registers record administrative information on the resident population at individual level. Both nationals and non-nationals with a valid permit of stay are included in the population universe. Registers should in principle keep track of all vital events and changes of residence, thus ensuring a continuous update of individual records. Registers are dependent on the timely and correct registration of the population. Sometimes registering with the local or government authorities is compulsory in order to receive some social services, such as education and health care. Two important factors play a decisive role in determining the accuracy of migration statistics derived from population registers:

(1) **Incentives to register and deregister:** Depending on the legal and administrative framework, migrants have different incentives to report their moves. Typically, long-term immigrants have an interest in registering with public authorities while persons staying for shorter periods

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[2] An example of this survey is the International Passenger Survey (IPS) carried out in the United Kingdom on a random sample of passengers entering and leaving the country by air, sea or the Channel Tunnel.

tend to underreport; on the other hand, those leaving the country usually have little incentive to deregister;

(2) **Operational effectiveness of administrative registers:** The management of information by public authorities can be done to varying degrees of effectiveness, depending on the legal framework, human resources, organisational capacity and information technology infrastructures. These features can have a heavy impact on the derived statistics.

Permits of stay registers

The authority issuing permits of stay to foreigners can usually provide important information on flows and stocks of non-nationals legally entering and/or residing in the country. The population universe is the legal non-national population. In countries where permits are required only for selected countries of citizenship or origin, the information provided will be clearly limited to these countries.

Though covering only a subset of immigration to a country, this source can provide important information, especially on inflows. When using data derived from this source, due attention should be paid to existing regulations on entry and stay in the country and their temporal evolution, since this would heavily impact on the derived statistical data. Problems may also arise from non-arrivals, early departures or double counts due to issuance of multiple permits.

Aliens registers

Some countries maintain a dedicated register of all foreigners living in the country. This kind of register can be a sub-product of the population register and it is usually fed by collecting information on individuals and relevant events from different administrative sources, such as permits of stay, and civil registrations. This source is able to provide accurate and detailed information on non-nationals with a valid permit of stay.

Naturalizations can have an important impact on the measurement of the stock of persons of foreign origin. Persons acquiring the citizenship of the host country are deleted from this register and the number of nationals of foreign countries would be underestimated from this source[3].

Passenger cards

Passenger cards (or border cards) systems collect data on all departures and arrivals through international borders. Both nationals and non-nationals are included in the population universe. These systems are able to provide good migration data when the great majority of border crossings take place through official entry points. Moreover, it is important that the administrative system be able to distinguish international migrants from all other international travelers.

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[3] This is true when naturalized persons are given the possibility to retain the previous citizenship, i.e. when dual citizenship is allowed.

This is usually possible if the system is able to match individual registrations at successive time points and at different locations. Systems of this nature can effectively work under specific geographical conditions and with highly developed administrative systems.

4.2   Critical issues of using receiving countries' immigration data

As previously stated, for most countries it is more difficult to collect information about emigration than immigration. Using receiving countries' immigration data could be helpful to sending countries to acquire useful information on the population that has left or is leaving the country. However, when using immigration data to estimate emigration, some important "critical factors" arise. In particular, the following aspects should be considered when using a specific source of immigration data from a receiving country:

- Coverage of the source;
- Definition of international migrant/migration;
- Data accuracy;
- Availability of origin-destination data;
- Different time references, also due to status adjustments of migrants;
- Availability of metadata.

Coverage of the source

The population universe covered by statistical sources can be different across countries: resident population, present population, legal population, international passengers, etc. Each universe covers a different set of people, with an impact on the possible inclusion or exclusion of specific sub-groups of migrants.

The reference population of the immigration data source has to be carefully considered and compared with the population of interest from the emigration country's standpoint. Important aspects to verify are:

- **Legal status of migrants** - whether the source covers both regular and irregular international migrations;
- **Existence of international agreements on free movement** - whether such agreements are in place and evaluate their possible impact, especially on administrative sources like permits of stay or border cards.

Definition of international migrant/migration

Within its reference population, each source identifies those persons and/or events that will be considered respectively as international migrants or international migrations. According to the *United Nations Recommendations on Statistics of International Migration* (United Nations, 1998), a migrant is defined as a person who changes his or her country of usual residence. In these recommendations, no indication was given as to the duration threshold to determine the place of usual residence, but an important distinction was made

between long-term migrants (persons moving to another country for at least 12 months) and short-term migrants (persons moving, for various reasons, for a period of at least 3 but less than 12 months). The *Conference of European Statisticians Recommendations for the 2010 Censuses of Population and Housing* indicate that the place of usual residence is the place where the person resides (or intends to reside) for at least 12 months (UNECE, 2006). Countries are not always able to conform to international standards and can therefore use different time durations to define the place of usual residence. Other characteristics such as the legal status of migrants can be taken into account by countries to determine the place of usual residence of a migrant. The definition used by the receiving country should be checked in order to make informed use of its immigration data.

When examining definitions used by various sources it is also important to understand whether the actual or the intended duration of residence is used. Often, data collected at the borders, through border cards or border sample surveys, refer to intended duration, while population-based data collections, such as the census or household sample surveys, tend to adopt actual duration of stay (as, for example, when the question 'Where were you living one year ago?' is used). Since the self-stated intention can differ from actual period of stay, there can be some bias in the estimates of migration flows.

Data accuracy

Understanding how accurate are the data is indispensable to make proper use of them, especially when using data produced by another country[4]. It is very difficult to make an objective assessment about the accuracy of data produced by a certain source. However, some indication on accuracy can be derived from the capacity of the source to show steadfast and consistent data, with long and coherent historical series. The comparison with other sources can also provide relevant information.

In the case of administrative sources, the operational effectiveness of administrative processes is crucial to determine the reliability of derived data, as well as factors linked to incentives or disincentives of individuals to notify their arrival or departure to responsible authorities.

When using sample surveys, particular attention should be paid to design, frame and size of the sample, which are particularly relevant when estimates on specific flows or stock data are needed (see section 2 on Household Sample Surveys).

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[4] Accuracy is the degree to which the information correctly describes the phenomena it was designed to measure and it is usually characterized in terms of bias (systematic error) and variance (random error) (Statistics Canada, 2002).

Availability of origin-destination data

When using immigration data to estimate emigration flows, it would be necessary to have them classified by country of previous residence. Sometimes this information is not available and proxy variables such as country of citizenship or country of birth are used. This option has to be carefully considered: experience shows that proxy variables can produce acceptable results for the first immigration wave between two countries, when country of previous residence, of citizenship and of birth coincide for the majority of migrants. This becomes less true when transit, circular or return migration take place.

In the case of stock data, the focus of emigration countries is primarily on country of citizenship and country of birth. However, both variables tend to underestimate the population group of interest to emigration countries because of naturalizations and birth of descendants in destination countries. Wherever possible, population groups identified by the use of additional variables such as country of birth of parents, citizenship at birth and multiple citizenships should also be considered.

Different time references due to status adjustments of migrants

Recording and/or counting of migration events can take place at different moments in the origin and destination country. This has to be taken into account when using immigration data from receiving countries when, for administrative or legal reasons, the immigration is registered with a considerable delay as in the case of status adjustment of migrants, which can occur as a consequence of individual applications or be linked to general regularization programmes.

Availability of metadata

Given the differences in reference population, definitions, accuracy, availability of information on individuals and time references, it is imperative that, before using immigration data from receiving countries, all relevant information is gathered and analysed. A wealth of information on statistical sources on migration is usually available at both national and international level.

4.3   Matching information needs on emigration with data sources from receiving countries

Depending on migration patterns, availability and reliability of statistical sources and other constraints like data accessibility and processing costs, sending countries wishing to use immigration data of receiving countries could use different sources of data according to their specific needs. Table 2 shows what data sources of receiving countries would best fit specific information needs of sending countries. This review has a general value and indications about sources must be carefully assessed on a case-by-case basis, taking into account quality standards of available sources.

**TABLE 2 - Data sources on immigration of receiving countries
fitting information needs on emigration of sending countries**

Data sources of receiving countries	Data needs of sending countries						
	Total emigration estimates	Emigration of country's immigrants	Emigration of country's nationals		Emigration of highly skilled		Short-term emigration
	Flows	Flows	Flows	Stocks	Flows	Stocks	Flows
Population Census				+		+	
Household sample survey	+	+	+	+		+	+
Border sample survey	+	+	+				+
Population register	+	+	+	+			
Permits of stay			+	+	+		+
Aliens register			+	+			
Passenger cards	+	+	+				+

Total emigration estimates: when needing data on migration outflows to regularly update population figures, the focus is on the total number of yearly emigrants. Sources such as population registers and household sample surveys in the receiving country should be considered first, provided that they exist and meet good quality standards. Also, border data collections, such as border sample surveys and border cards, can provide useful data, where available.

Emigration of a country's immigrants: the same sources considered for total emigration estimates could also be considered when the focus is primarily on emigration of a country's immigrants, provided that information is also available on variables such as citizenship and/or country of birth to identify the background of emigrants;

Emigration of a country's nationals: different sources can be used respectively for flow and stock data. For the former, all the various types of sources could be effectively used, with the exception of the census, which is carried out at long intervals. The census, together with population, aliens and permits of stay registers and household sample surveys, become very important sources to gather information on the stocks of emigrants with national background that are living abroad.

Brain-drain or emigration of highly skilled individuals: collection of data on this sub-group of national emigrants requires that information on educational attainment and/or reason for migration is collected. Some information on flows may be derived from permits of stay registers, while data on the stocks can be derived from population censuses and household sample surveys.

Short-term emigration: border data collections provide some information on these migrants, which are more difficult to describe by other sources given that there is no change of place of usual residence. Permits of stay registers can also provide some information on the legal component of this migratory flow.

5. Improving availability, quality and accessibility of data on international immigration to improve emigration estimates of sending countries

To satisfy a wide range of needs for emigration data (see Chapter 2), the 'ideal' statistics should be comprehensive, covering all groups of emigrants (nationals and foreigners) and all types of migration (long-term and short-term, legal and illegal). They should be timely (available on an annual basis), provide detailed information in terms of origin and destination, characterize emigrants by their 'migration background' (primarily country of birth and citizenship) and provide information on demographic and socio-economic characteristics of individuals (age group, sex, educational attainment, occupation). Currently, the capacity of countries to produce this 'ideal' set of data differs significantly, resulting in the existence of national emigration data gaps. To rectify this situation, countries may wish to take advantage of the receiving countries' different data sources and fill some of their own data gaps on emigration.

The wider availability of migration statistics in destination countries, as compared to sending ones, suggests that the former should be more widely used by the latter. Until today, and with few exceptions, national official migration statistics are only those produced internally in each state. Countries, however, could consider moving beyond relying only on national sources of data for their emigration statistics and start also using other countries' immigration statistics when such data can provide wide and complete coverage of the emigration streams leaving their own country. The use of immigration data of other countries to improve emigration estimates can take several forms, as for example comparing data for benchmark purposes, or using other countries' data to adjust/correct emigration estimates, or to use other countries' immigration data as the estimate of emigration from the country. In any case, there is a clear need for a strong exchange of data and metadata between countries, in the short term, and the need of a harmonized system of migration statistics, in the medium and long term. The sharing of data between countries also means important economies of scale, since scarce resources may be allocated to a more solid system of national migration statistics.

Despite these considerations, important obstacles remain to the regular exchange and use of international immigration data for sending countries' national purposes. First, immigration data are very specific to the national context and the variety of sources (census, sample surveys, administrative records etc.) as well as the diversity of definitions and frameworks pose important difficulties to the direct use of such data by sending countries. Secondly, data on immigration is not always easily accessible by interested users, especially when detailed information is needed by sending countries for their statistical figures. Thirdly, data collection activities carried out at the international level usually focus on information needs on immigration. This means that international migration data made available by international organizations do not fully meet information needs on emigration.

In order to facilitate the use of international immigration data to meet information needs on emigration by sending countries, some improvements should be made, such as:

- Data production by national statistical systems, respectively on immigration flows and stocks of immigrants;
- Data accessibility by national statistical systems;
- Data collection and dissemination by international organizations.

5.1 Data production

The improvement of data on international immigration is crucial in every situation, regardless of the importance of using immigration data to estimate emigration. Having good immigration data, at the national level, is a current priority in national statistical systems. The current increase of population mobility also suggests that attention cannot be restricted to statistics on foreigners, the usual priority in receiving countries, but also to every group of mobile persons (nationals and non-nationals alike).

Even though at first glance no country has vested interests in helping to improve another country's emigration statistics, it is recommended, nevertheless, that countries make increased efforts to produce and disseminate their immigration statistics also taking into account information needs on emigration of sending countries. If several countries do so, the availability of data on departures of residents from their own territory will increase, with beneficial effects for all.

The main focus of the following paragraphs is to provide suggestions to countries when producing and disseminating immigration data. These data can better fit the information needs of emigration countries even with relatively small improvements in the way such data are collected, processed and disseminated. The goal is to review existing sources and data production and make suggestions for improvements by taking the perspective of emigration countries. The prerequisite for an informed use of existing immigration data is that complete and comprehensive metadata should be easily accessible and understandable.

Immigration flows

According to the various available sources, the following actions may be undertaken by countries to improve availability and relevance of data on international immigration flows:

- **Administrative sources:** Statistical authorities usually have limited possibilities to modify definitions and/or coverage of administrative data since they are usually the by-products of administrative processes fixed by the competent authorities. However, statistical authorities should explore whether all available information is used to produce regular statistics. For example, they should check to ensure that the information on country of previous residence and/or country of birth was fully utilized, since the focus is often on country of citizenship;

- **Sample household surveys:** This source represents a mostly untapped resource to produce data on international immigration in a number of countries. In particular, the question on place/country of residence one year before or on the year/month of arrival in the current place/country of residence could be used to produce important immigration data. These questions are often included in major household surveys, such as the Labor Force Survey, but they are not systematically used to produce data on immigration flows. In principle, these topics could ensure the production of immigration data with the following advantages: good coverage of data, since household surveys usually cover the resident population, irrespective of the legal status or the citizenship of respondents; good wealth of individual information on respondents, primarily on demographic and social variables, which would fit many information needs; internationally comparable data, produced in accordance with international recommendations on the definition of the place of usual residence. The production of good quality data on immigration flows based on household surveys depends on a number of critical factors, such as:

    (a) **Sample frame:** the sample frame needs to be updated on a regular basis to have a good coverage of newly arrived residents;

    (b) **Sample design:** The inclusion of particular geographical areas and/or population groups where immigrants have a higher concentration should be ensured;

    (c) **Sample size:** The sample must be big enough to have a sufficient number of immigration events included and this can be a critical issue in those countries where inflows are not so large or where the sample is of limited size. From an international or regional perspective, it could be possible to overcome estimation problems due to reduced sample size by aggregating data from several national samples.

    The extensive use of national household surveys as a vehicle for collecting immigration flow data is strongly recommended. Regular household surveys are also a versatile source because dedicated modules can be used periodically to produce more detailed data while using a consistent framework.

- **Population census:** This source is not particularly suited for producing data on immigration flows since figures on inflows are needed on a continuous basis while censuses are usually taken at intervals of five or ten years. However, the inclusion of information on the previous place of residence would allow the production of important benchmark data. The importance of these data would increase as long as specific population groups, such as irregular migrants, are covered by the census and internationally recommended definitions, such as usual residence, are adopted. The CES Recommendations for the 2010 Censuses of Population and Housing propose that the core topic 'Ever resided abroad and year of arrival in the country' be included in future population censuses. This will provide valuable information on international immigration flows to the country, especially for the years immediately before the census, and on duration of residence of international migrants living in the host country.

Stocks of immigrants

The following actions may be undertaken by countries to improve availability and relevance of data on stocks of immigrants, according to the various available sources:

- **Administrative sources:** Statistical authorities should explore whether all available information is used to produce regular stock data. For example, they should check to ensure that all relevant information on the foreign background of all individuals (nationals and non-nationals alike) has been fully utilized. In addition to current citizenship, persons with a foreign background can be identified through variables such as citizenship at birth and the country of birth of parents.

- **Sample household surveys:** They must include some basic questions on the foreign background of all respondents (such as country of birth of parents, citizenship at birth, multiple citizenships), both in major household surveys, such as the Labor Force Survey, and other surveys. Again, the extensive use of national household surveys as a vehicle for the collection of data on immigrants and their characteristics is strongly recommended. The development of a 'standard migration module', either in the form of a dedicated survey or as an additional module to an existing household survey, is a means to achieve this goal. Questions recommended for a core topic for the 2010 round of censuses should be asked consistently across different surveys.

  The production of good quality data on immigrant stocks based on household surveys depends on a number of critical factors as outlined previously.

- **Population census:** This source is particularly suited for producing data on stocks of immigrants. The CES Recommendations for the 2010 Censuses of Population and Housing should be followed as closely as possible since they allow a better use of the census to produce internationally comparable migration data. As a consequence, the importance of these data would increase when recommended topics are included and recommended definitions, such as usual residence, are adopted. For international migration, the various population groups can be identified by applying analytical classifications based on the two core topics 'country of birth' and 'citizenship' and the non-core topic 'country of birth of parents'. The joint use of the two core topics allows the identification of four population groups. Based on the two core topics and 'country of birth of parents' eight population groups can be derived. One or more questions on citizenship acquisition (e.g. citizenship at birth or year of acquisition of citizenship) allow identifying naturalized persons and providing information on the foreign background of nationals.

5.2 Data accessibility

Countries should undertake efforts to make their immigration data accessible for use by other countries so they will facilitate the measurement of emigration for sending countries. All data, therefore, should be made available by taking into account the sending country perspective. To facilitate the use by another country, these data should be compiled using standardized tables.

When exchanged, the standardized tables will lead to an improvement of information on departures/emigration of residents of all countries participating in such an exchange. In addition to augmenting emigration statistics available in sending countries, the migration data exchange could be viewed as a useful step in the process of achieving an overall comparability of data on international migration across countries.

At least seven standard tables should be compiled and considered for the data exchanges (see Annex A, Tables S1 to S7). In each case, the choice of the most appropriate statistical sources would be left to the country tabulating the data. In the following description, 'partner country' = (X) is a country with which a table is exchanged.

Table S1 - Residence one year ago in the partner country, by place of birth
Table S2 - Residence one year ago in the partner country, by citizenship

These two tables present the number of persons who live in the country at a particular date but had their place of usual residence in the partner country one year before, broken down by sex. In Table S1, this group of persons is classified according to place of birth (host country, partner country or other country). In the Table S2, this group of persons is classified according to country of citizenship (host country, partner country or other country). The source of these tables is typically a household sample survey, such as the Labour Force Survey, or the population census.

Table S3 - Immigrants by country of previous residence
Table S4 - Immigrants by country of citizenship
Table S5 - Immigrants by country of birth

These three tables present the number of immigrants in a given calendar year who originate from the partner country, broken down by sex. In each of these three tables, the origins are defined using a different concept: country of previous usual residence (Table S3), country of citizenship (Table S4), and country of birth (Table S5). An additional table could be provided by cross-classifying country of previous usual residence with country of citizenship. The source of these tables is usually represented by administrative registration systems such as population registers, permits of stay or aliens registers.

Table S6 - Population by country of birth and citizenship

This table presents data on population stocks at a particular date by country of birth (host country, partner country or third country), which is additionally broken down by country of citizenship. The breakdown of citizenship is limited to three broad groups: host country, partner country and third country. In the case

of citizens of the host country, a distinction is made between citizens by birth and naturalized citizens. An additional table could be created by distinguishing, among national citizens, between those who have only national citizenship and those who have dual citizenship, i.e. those having both national citizenship and citizenship of the partner country. This table could be particularly useful when information on citizenship acquisition is not available. These tables could be derived from the population census or, in some cases, from the population register.

Table S7 - Population by country of birth and country of birth of parents

This table presents data on population stocks at a particular date by country of birth (host country, partner country or third country) and country of birth of parents. Four possible combinations of country of birth of parents are shown in order to identify immigrants and descendants of immigrants (both parents born in partner country, only one parent born in partner country, no parent born in partner country but at least one parent born in host country, both parents born in third countries). The source of these tables could be either the population census or the population registers.

Most of the standard tables S1-S7 described above are already included in the *Joint United Nations Statistical Division (UNSD)/Eurostat/UNECE/International Labour Office (ILO) Questionnaire on international migration statistics*. Countries are encouraged to make efforts to produce the standard tables S1 to S7 and make them available for data exchange. However, there is no compulsory requirement to report these data, other than the requirements of the Joint Questionnaire.

5.3 Data collection and dissemination by international organizations

The main objective of these Guidelines is to provide guidance and facilitate bilateral data exchanges between statistical authorities of countries. However, international organizations can also play an important role in promoting the use of immigration data to improve emigration estimates of sending countries.

Unfortunately, migration data made available by international organizations do not fully meet information needs on emigration. In fact, even when data collection activities request comparable data on both emigration and immigration (as it is the case for the Joint UNSD/Eurostat/UNECE/ILO Questionnaire on international migration statistics), the availability at the national level of data on emigration is often limited. To remedy this, efforts should be made to adapt or expand existing data collections by international organizations with the objective to better meet the information needs on emigration. These efforts may include:

- Regular and timely dissemination of national standardized tables on immigration flows and immigrant stocks (see Section 5.2) in a uniform manner;

- Compilation of synoptic tables presenting data not only by country of immigration but also by country of emigration;

- Set up a clearing house where data on international immigration collected according to the templates of Annex 1 would be stored. Data included in the clearing house would only serve the purpose of comparing and validating countries' data on immigration and emigration. For this reason its access would be restricted to National Statistical Offices. The existence of this data collection would facilitate the accessibility of statistics that are not publicly disseminated because of quality concerns. The clearing house should be to be located in an international organization (to be identified) and an appropriate mechanism of data collection and storage should be set up.

6. References

Statistics Canada (2002) *Statistics Canada's Quality Assurance Framework*.

United Nations (1998) *Recommendations on Statistics of International Migration, Revision 1*, Statistical Papers, Series M, No. 58, Rev.1.

UNECE (2006) *Conference of European Statisticians Recommendations for the 2010 Censuses of Population and Housing*, New York and Geneva, United Nations.

ANNEX A - Standardized tables for immigration data compilation and exchange

Table S1 – Population of your country by sex, place of birth and place of residence one year before data collection

		Residence one year before - Country X				Residence one year before - Your Country				Residence one year before - Other			
		Place of Birth				Place of Birth				Place of Birth			
	Total	Total	Country X	Your Country	All Other Areas	Total	Country X	Your Country	All Other Areas	Total	Country X	Your Country	All Other Areas
Total													
Male													
Female													

Table S2 – Population of your country by sex, citizenship and place of residence one year before data collection

		Residence one year before - Country X				Residence one year before - Your Country				Residence one year before - Other			
		Citizenship				Citizenship				Citizenship			
	Total	Total	Country X	Your Country	All Other Areas	Total	Country X	Your Country	All Other Areas	Total	Country X	Your Country	All Other Areas
Total													
Male													
Female													

Table S3 - Persons who immigrated to your country from country X (where X is country of previous residence), by sex

	Immigrants whose country of previous residence=X
Total	
Male	
Female	

Table S4 - Persons who immigrated to your country who were citizens of country X (where X is country of previous residence), by sex

	Immigrants whose country of citizenship=X
Total	
Male	
Female	

Table S5 - Persons who immigrated to your country who were born in country X (where X is country of previous residence), by sex

	Immigrants whose country of birth=X
Total	
Male	
Female	

Table S6 - Population by sex and country of birth and citizenship

Country of birth	Citizenship	Total	Male	Female
PERSONS BORN IN COUNTRY X	Citizens of country X			
	Citizens of your country (nationals), thereof:			
	- citizens of your country since birth			
	- citizens of country X at birth who became citizens of your country following naturalization			
	Persons with other citizenship			
	TOTAL PERSONS BORN IN COUNTRY X			
PERSONS BORN IN YOUR COUNTRY (native-born)	Citizens of country X			
	Citizens of your country (nationals), thereof:			
	- citizens of your country since birth			
	- citizens of country X at birth who became citizens of your country following naturalization			
	Persons with other citizenship			
	TOTAL PERSONS BORN IN YOUR COUNTRY			
PERSONS BORN IN OTHER COUNTRIES	Citizens of country X			
	Citizens of your country (nationals), thereof:			
	- citizens of your country since birth			
	- citizens of country X at birth who became citizens of your country following naturalization			
	Persons with other citizenship			
	TOTAL PERSONS BORN IN OTHER COUNTRIES			
TOTAL POPULATION	Citizens of country X			
	Citizens of your country (nationals), thereof:			
	- citizens of your country since birth			
	- citizens of country X at birth who became citizens of your country following naturalization			
	Persons with other citizenship			
	TOTAL POPULATION			

Table S7 - Population by sex and country of birth and country of birth of parents

Country of birth	Country of birth of parents	Total	Male	Female
PERSONS BORN IN COUNTRY X	Both parents born in country X			
	Only one parent born in country X			
	No parent born in country X and at least one parent born in your country			
	Both parents born in other countries			
PERSONS BORN IN YOUR COUNTRY (native-born)	Both parents born in country X			
	Only one parent born in country X			
	No parent born in country X and at least one parent born in your country			
	Both parents born in other countries			
PERSONS BORN IN OTHER COUNTRIES	Both parents born in country X			
	Only one parent born in country X			
	No parent born in country X and at least one parent born in your country			
	Both parents born in other countries			
TOTAL POPULATION	Both parents born in country X			
	Only one parent born in country X			
	No parent born in country X and at least one parent born in your country			
	Both parents born in other countries			

ANNEX B – Report on data exchange exercise

1. Introduction

The *Guidelines for Exchanging Data to Improve Emigration Statistics* are based on the results of a data exchange exercise organized in 2006 by the UNECE/Eurostat Task Force on Measuring Emigration Using Data Collected by the Receiving Country. This exercise was aimed at assessing the feasibility of using immigration data of destination countries to improve emigration estimates of countries of origin. The results of this data exchanged exercise are presented in this annex.

2. The data exchange exercise

2.1 Participating countries and organizations

The data exchange exercise involved 19 countries which formed four groups led by Canada, Estonia, Portugal and Switzerland. Four countries were members of more than one group:

- **Group 1:** Albania, Italy, Switzerland, The former Yugoslav Republic of Macedonia.

- **Group 2:** France, Portugal, Spain, United Kingdom.

- **Group 3:** Australia, Canada, Czech Republic, Italy, Norway, Poland, The former Yugoslav Republic of Macedonia, United Kingdom, United States of America.

- **Group 4:** Estonia, Finland, Georgia, Kazakhstan, Norway, Russian Federation.

Albania and Georgia were not able to provide any data. The Czech Republic represented a special case as data were not provided by the country itself but extracted from Eurostat's NewCronos database.

Data collection was carried out first on flows and then on stocks. Each of the participating countries had to report data on migration flows or immigrant stock from each of the other countries of the same group. Every country was asked to provide all their available data on immigrants/emigrants according to national definitions and sources. If more than one source was available on the same type of data, all of them had to be reported. Detailed metadata for each data source used were requested as well.

The four group leaders were responsible for the drafting of a data analysis report which presented and analysed the data collected within each group. The entire data exchange exercise was supervised and coordinated by the Social and Demographic Statistics Section of the UNECE Statistical Division.

2.2 Data exchange templates

The data exchange occurred on the basis of common templates, i.e. a set of tables that were prepared taking into account the existence of very diverse data sources across countries.

For the first data collection round, eight tables were requested for three different types of migration flow statistics. Two tables were based on the residence one year ago concept. Three tables were based on annual immigration flows and three tables were based on annual emigration estimates (for details see Appendix). All sets of tables were – whenever applicable – differentiated by different concepts of 'country of origin' identification. In addition, data were broken down by sex and age groups (under 18, 18-29, 30-49, and 50 years and over).

Overview of Requested Migration Flow Data

Tables 1 and 2 contained data obtained from the question on the place of residence one year ago which is usually included in population censuses. This information may also be available from household surveys and population registers.

Tables 3, 4 and 5 contained annual inflow data collected through other sources than the census, generally of an administrative nature.

Tables 6, 7 and 8 contained annual outflow data generally collected from administrative sources.

For the second data collection round, two tables on stocks of migrants and their descendants were requested. Both sets of tables were differentiated according to concepts of 'country of origin' identification of migrants, their descendants and their parents (for details see Appendix).

Overview of Requested Migration Stock Data

Table 1 contained stock data collected in household surveys, population censuses and/or population registers and cross-referenced by country of birth and country of citizenship.

Table 2 contained stock data cross-referenced by country of birth, country of citizenship and country of birth of parents.

Inflow and outflow data were requested by different concepts of 'country of origin' identification:
- (Current) country of citizenship;
- Country of birth;
- Country of previous or next residence.

Each one of these related concepts is useful for a comprehensive look at the migration phenomenon. They allow for a more detailed examination of the characteristics of the migration flows. From a supranational point of view, the most relevant concept for the measurement of migration flows between countries is the country of previous residence (in the case of immigration) or next residence (in the case of emigration). Origin-destination specific data allow identifying and quantifying actual migration flows between different national territories. However, in many countries the focus is often on place of birth or citizenship of immigrants. Consequently, this type of data was also collected with the aim of assessing the differences between data classified by each of these three concepts and answering the question whether one concept can feasibly act as a substitute for another one.

Data on outflows were collected to see what emigration data were available in the individual countries and to compare them with corresponding immigration data from receiving countries in order to assess the implications on using another country's immigration data. However, a systematic comparison and in-depth analysis of differences in flow data between two given countries was not the aim of the emigration data collection.

Immigrant stock data should allow a comprehensive monitoring and analysis of the impact of international migration which means that the basic distinction between foreign-born and foreigners is not quite sufficient. Thus data were requested that classify the population stock according to country of birth, country of citizenship, citizenship at time of birth and country of birth of parents and/or a combination of those four variables. This allows for the identification of specific sub-groups relevant to international migration, such as descendants of foreign-born - often referred to as the 'second generation' - or naturalized citizens.

Designing the data exchange templates was a crucial first step in the collection process. The better the templates fit the overall objectives, the better the data that can be gained from them. It was expected that most countries would not be able to provide all the requested data but the aim was to gather as much information as possible in order to facilitate comparisons across countries. At the same time, the data requests were kept relatively simple by deliberately limiting the details of the requested data and by being fully aware that not all information needs would be completely satisfied.

3.   Data received from individual countries

The following synoptic tables show the type of migration data produced in the individual countries and the different data sources used for compiling national migration statistics. It should be noted that the information in the tables is exclusively based on the data that were supplied for this exercise. They do not necessarily represent all the data that are actually available in the countries.

Table 1 - Distribution of countries by type of migration data

Type of migration data	Number of countries
Immigration data	17
Emigration data	14
Immigration and emigration data	14
Only immigration data	3

Of the 19 participating countries, 17 were able to provide immigration data. Fourteen countries also supplied emigration data, with Canada, France and the United States the only three countries that provided no annual data on outflows. At first glance, the availability of emigration data seems to be much better than expected which leads to the conclusion that most countries that produce data on immigration flows also have data on emigration. However, the mere availability of such data does not indicate the scope, the reliability or the quality of emigration statistics.

Table 2 - Distribution of countries by data received for each template

Data exchange templates	Number of countries
Residence one year ago by country of birth	14
Residence one year ago by country of citizenship	14
Immigrants by country of last residence	16
Immigrants by country of birth	13
Immigrants by country of citizenship	15
Emigrants by country of next residence	13
Emigrants by country of birth	10
Emigrants by country of citizenship	13
Population by country of birth and citizenship	10
Population by country of birth, country of birth of parents and citizenship	2

Annual immigration flow data were slightly more frequently supplied than flow data derived from the question about the previous residence. Origin-destination specific data (country of last or next residence) could be supplied by the highest number of countries. For both immigration and emigration flow data, the country of birth was least available. Immigrant stock data were less frequent than flow data, with only two countries (Canada, Spain) able to provide information about immigrants' parents.

The following table presents the information already shown in Tables 1 and 2 from a different angle by cross-referencing the type of migration with the definition of migrant origin.

**Table 3 - Distribution of countries by type of migration data
and definition of migrant origin**

Definition of migrant origin	Type of migration data		
	Immigration flow data	Emigration flow data	Immigrant stock data
Country of last/next residence	16	13	…
Country of birth	13 (annual) 14 (residence 1 year ago)	10	…
Country of citizenship	15 (annual) 14 (residence 1 year ago)	13	…
Country of birth and citizenship	…	…	10
Country of birth and citizenship and country of birth of parents	…	…	2

**Table 4 - Distribution of countries by type of migration data
and type of data source**

Type of data source	Type of migration data		
	Immigration flow data	Emigration flow data	Immigrant stock data
Population census	11	1	7
Population register	5	5	3
Aliens' register, permits of stay register or other administrative database	8	5	2
Household sample survey	1	1	2
Border sample survey	1	1	-
Passenger cards system	1	1	-

Generally, data sources used by the participating countries were quite diverse. In addition, the type of information collected or derived from these sources was different from one country to another. Six major types of data sources were used for both immigration and emigration flows. Stock data on immigrants were derived from four types of sources. The most widely used source for immigration flow data was the population census, followed by administrative registers that usually cover non-nationals only. A majority of countries used multiple data sources to produce immigration data – with the census being one of those sources in 11 countries. Administrative registers were the main sources for outflows. Emigration data mostly relied on one single source, Poland and Portugal being the only two countries that used multiple sources for emigration data. The census again was most frequently used to tabulate immigrant stocks. Surveys occupied a much less prominent role as sources for migration data.

The following two tables present the data sources for immigration and emigration data supplied by the participating countries.

Table 5 - Received immigration flow data by type of data source

Country	Type of data source					
	Population census	Household sample survey	Border sample survey	Population register	Permits of stay register, aliens' register or other administrative database	Passenger cards system
Albania	…	…	…	…	…	…
Australia	x					x
Canada	x				x	
Czech Republic	…	…	…	…	…	…
Estonia	x			x		
Finland				x		
France	x					
Georgia	…	…	…	…	…	…
Italy	x			x	x	
Kazakhstan						
Norway				x		
Poland	x				x	
Portugal	x	x			x	
Russia					x	
Spain	x			x		
Switzerland	x				x	
TFYR of Macedonia	x				x	
United Kingdom	x	x	x			
United States		x				
TOTAL	**11**	**3**	**1**	**5**	**8**	**1**

Notes:
… = no data provided for this exercise or data extracted from Eurostat database.
Kazakhstan: source for immigration data unknown.
TFYR of Macedonia = The former Yugoslav Republic of Macedonia.

Table 6 - Received emigration flow data by type of data source

Country	Type of data source					
	Population census	**Household sample survey**	**Border sample survey**	**Population register**	**Permits of stay register, aliens' register or other administrative database**	**Passenger cards system**
Albania	…	…	…	…	…	…
Australia						x
Canada						
Czech Republic	…	…	…	…	…	…
Estonia				x		
Finland				x		
France						
Georgia	…	…	…	…	…	…
Italy				x		
Kazakhstan						
Norway				x		
Poland	x				x	
Portugal		x			x	
Russia					x	
Spain				x		
Switzerland					x	
TFYR of Macedonia					x	
United Kingdom			x			
United States						
TOTAL	**1**	**1**	**1**	**5**	**5**	**1**

Notes:
… = no data provided for this exercise or data extracted from Eurostat database.
Canada, France, United States: no emigration data available.
Kazakhstan: source for emigration data unknown.
TFYR of Macedonia = The former Yugoslav Republic of Macedonia.

4. The major findings

The analysis of the individual country data in the four group reports was primarily guided by one of the main objectives of the work of the Task Force, i.e. to assess the feasibility of using other countries' data to address the needs of sending countries with specific emphasis on (1) whether host countries can adequately measure immigration from a particular country; (2) whether the immigration data of the host country data are consistent with other data sources including emigration data from the sending country; (3) whether different definitions and concepts have an influence on the use of another country's immigration data.

Putting all the information on migration data collection and production in the individual countries together, results in a very complex and diverse picture. It is, therefore, extremely difficult to come up with general findings which universally apply to all 19 countries.

Immigration data are not uniform across the individual countries as they serve the countries' own policy related goals. The national framework for collecting migration statistics plays a crucial role. In broad terms, the availability of immigration data varies according to statistical sources available in each country. Consequently, the scope and the quality of immigration data derived from different receiving countries vary widely. One of the goals of the data analysis was to determine how to use these not uniform immigration data to the best advantage of a sending country[5].

4.1 Data sources

There was no evidence that any one source of data produced more accurate results than others even though certain sources (e.g. administrative registers covering the whole population), under specific conditions, may be able to provide more comprehensive statistical data than others. Each data source is in some way limited with respect to its coverage of migration. These limitations follow from the diverse nature of international migration today as well as from the multiple purposes these data sources have been designed to serve. In all participating countries emigration is weaker in terms of data sources than immigration.

The use of multiple or alternative sources to determine or estimate international migration is still lacking in many countries. Apart from the census mobility question, the flow data in a large majority of countries were derived from one single data source. There were just a few exceptions: e.g. Italy (population register and permits of stay register), Portugal (permits of stay register, emigration survey), the United Kingdom (International Passenger Survey, Labour Force Survey), and the United States (American Community Survey,

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[5] The Task Force considered it important that the immigration data be as comprehensive as possible and be inclusive of all groups relevant to international migration (nationals and non-nationals, permanent and non-permanent residents, native-born and foreign-born alike). Only such an all-encompassing immigrant concept can satisfy the wide and diverging needs for emigration data of sending countries.

administrative data). Poland is the only country that uses the census to obtain information on emigration. Using several different data sources can provide a wider and more complete coverage of the immigration and emigration streams entering and leaving the country. On the other hand, combining data from different sources to provide a coherent picture can be methodologically challenging due to variations in concepts and definitions.

The frequent assumption that data on inflows in receiving countries are more complete than those on the corresponding outflows in sending countries cannot be fully endorsed or rejected by the data gathered in this exercise. The results suggest that the type of data source used in a given country plays a crucial role in determining the scope and the coverage of inflows and outflows.

4.2   Flow versus stock data

Both flow and stock data are important for international migration statistics. While annual flow data are, in principle, best suited for the measurement of migratory movements, such data may be difficult to obtain as they require a fairly elaborate registration system or data collection tool. Stock data are generally easier to collect. Despite the well-known limitations regarding their use for the estimation of international migration (e.g. they show only selective aspects of the outcomes of the migratory process at one or more chosen points in time and represent the cumulative effect of net migration flows over a certain period in the past), stock data can sometimes provide a more comprehensive picture of immigration than annual inflow statistics. This is especially the case in countries where immigration statistics are confined to only those people who have been granted permanent residence permits.

Moreover, data on stocks of immigrants can be very useful to give information on stocks of (other countries') emigrants, provided that data on a person's 'immigration background' exist. Given the fact that the (decennial) population census is one of the main sources of stock data, such information is generally available even though not necessarily on a timely basis. In most countries, the census uses all three concepts of 'country of origin' identification. However, information on a person's parents seems less frequently obtainable, thus limiting the identification of the group of descendants of foreign-born.

4.3   'Country of origin' identification

The analysis of the three different concepts of 'country of origin' identification shows that none of these variables may be considered an ideal proxy for another one. For example, it would be problematic to consider 'country of citizenship' synonymous with 'country of last residence' as a universal rule. In a given country A, the number of immigration events involving citizens of country B, the number of persons born in country B and the number of immigration events originating from country B may be very different. The relationship between these three concepts is country-specific and may even change over time. While there is a high degree of correlation for some migratory flows, it is far less obvious in others. The greater and unrestricted international mobility for European Union (EU) citizens within the European Economic Area (EEA) for instance and the

emergence of new forms of migration, such as transit, circular or return migration, seems to lead to an ever widening gap between these concepts.

4.4   Immigration vs. emigration data

For most countries, it is more difficult to collect information about emigration than immigration. In the worst case scenario, the sending country has no or only incomplete flow data on persons leaving its territory. The receiving country, on the other hand, may in principle have both inflow and stock data on immigrants, i.e. the sending country's emigrants. Therefore, receiving countries can generally provide a more comprehensive picture of emigration than most sending countries.

None of the participating countries was able to provide all the requested data and is currently in a position to produce statistics on a regular basis that cover all basic information needs on emigration. Moreover, the need for reliable and timely emigration data exists nowadays everywhere – even in 'traditional' immigration countries such as Australia, Canada and the United States as well as those in Western and Northern Europe.

4.5   International comparability of migration flows

The low degree of comparability of data on international migration flows becomes evident when matching data on flows between pairs of countries that are reported by the country of origin and the country of destination. Emigration data from a sending country were often different from immigration data in a corresponding receiving country. In most cases, the two data sets do not match at all. As expected there was one notable exception: Finland and Norway provided data that were almost identical. This is due to the Inter-Nordic Migration Agreement which links the registration and deregistration of migrants between the countries that participate in this coordinated exchange of migration information. The many inconsistencies concerning the same migration flow between other pairs of countries are mainly due to differences in the concepts and definitions, the methods and coverage of the data collection as well as the time lag between the registrations of the same event in the two countries.

4.6   Terminology and definitions used in international migration statistics

It is obvious that despite the myriad efforts towards achieving international comparability and the ongoing discussions at the multilateral level, a universal standardized and harmonized terminology used in the collection of international migration statistics is far from a reality. There are many conceptual, theoretical, temporal, methodological and systematic discrepancies between different countries' migration statistics.

The major issues that have to be dealt with when using another country's migration data include:
- The use of different concepts or definitions of who is considered an immigrant or an emigrant;

- National data sources that cover different reference periods as well as different population universes (e.g. resident population, present population, legal population);

- The different treatment of nationals and non-nationals (e.g. data are available only for one group and not the other);

- The inconsistency of flow data derived from the census and from administrative registers and the inconsistency between flow and stock data. It is, therefore, rather the rule than the exception that different national data sources provide different data for the measurement of the same migratory events;

- The inconsistency of origin-destination specific flows between two given countries when the respective national data are compared.

4.7   Metadata

Given the lack of uniformity in the definitions of international migrants and in the concepts of international migration flows used in various countries the availability of complete and comprehensive metadata is paramount. The metadata should include complete and detailed information on each data source, including the underlying laws, the practical administrative procedures involved, and the level of coverage. Special emphasis must be paid to any changes in a country's population universe, the data collection process or legal regulations which might affect the way migrants and their movements across borders are defined and counted. A lack of detail in the available national metadata might impede full understanding of observed anomalies, discrepancies and gaps. There is the inherent possibility that data are misinterpreted by another country wishing to use them if the metadata are not fully known and understood – and misguided decisions may be made regarding their use.

5.   Conclusion

The data exchange exercise provided empirical evidence of the issues to be confronted and the challenges to the use of a receiving country's immigration data as a potential source for emigration statistics.

Measuring and comparing migration movements of populations in different countries is indeed a challenging task. The conceptual, methodological and definitional problems, which result in differences in the numbers from sending and receiving countries, complicate the use of another country's immigration data. Another problem involves the combination of data from different receiving countries in light of their varying degrees of quality. It is safe to state that harmonization of international migration statistics won't be reached in the short or even medium term. However, it is possible even now to obtain useful data on nationals or former residents living abroad or having moved abroad from the immigration data of receiving countries.

The results of the analysis of migration data collected in the four groups indicate that immigration statistics in receiving countries may constitute a relatively good source of information for sending countries on their emigrants, notwithstanding the difficulties mentioned above. The degree of usefulness depends on the

quality of the country's own emigration statistics. Specific data needs are defined by what is already produced by a country's statistical system as well as the kind of information that a country wishes to have. Using other countries' immigration data may be the only available short-term option for countries lacking emigration statistics. For countries with at least some emigration data they could provide benchmarks against which they can evaluate their own available statistics. An increasing reliance on the use of another country's data, however, should not preclude improving emigration data collection at the national level.

Depending on the source, national statistical offices (NSOs) have different possibilities to influence the collection of essential migration related data. Administrative data are usually maintained by agencies other than the NSO. Therefore, it is not likely that statisticians can effect changes in the rules of registration to improve the quantity and quality of data and to facilitate compliance with international recommendations. Population-based data collections (surveys and censuses), however, are usually carried out by NSOs. This, in theory, should help ensure the use of harmonized concepts and definitions and the inclusion of pertinent questions in the data collection exercise.

Based on the findings of the data collection exercise, some general guidelines were developed which explore the possibilities of using immigration data to compensate for and improve the existing weaknesses of emigration data of sending countries. These guidelines:

- Identify the typology and uses of emigration data;
- Provide guidance on how to use immigration data of receiving countries to obtain information on emigration;
- Propose activities, which would lead to increased availability of emigration data.

6. References

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