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Statistics on International Migration A Practical Guide for Countries of Eastern Europe and Central Asia



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**United Nations Economic Commission for Europe
United Nations Population Fund**

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**A Practical Guide for Countries of Eastern Europe and
Central Asia**

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NOTE

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Preface

Migration is a powerful driver and important consequence of economic, political and social change. Because of its great impact on societies, migration needs to be adequately measured and understood. Reliable statistical data is the key to the basic understanding of this important phenomenon. Yet, in many countries, even the most general statistics on migration are incomplete, out-of-date or do not exist. Improvement in this area requires knowledge of the principles of collecting, compiling and analyzing migration statistics. Likewise, policymakers and other users need to be aware of the definitions and measurement issues related to the data to be able to interpret them.

The 2006 High-level Dialogue on International Migration and Development at the United Nations General Assembly concluded that international migration could play an important role in national development, provided that it was supported by the right set of strategies and policies. This has led to the increase in international efforts related to migration and its measurement. The present *guide* was prepared under the responsibility of the United Nations Economic Commission for Europe in the framework of the project “Strengthening national capacities to deal with international migration: maximizing development benefits and minimizing negative impacts”. The project involved all five regional commissions of the United Nations and was financed from the United Nations Development Account.

The *guide* is intended for practitioners and professionals whose work is related to migration and migration statistics. It focuses on the specific context of migration processes in Eastern Europe and Central Asia. We expect that the practical examples and international recommendations presented herein stimulate interest and improve understanding and facilitate production, dissemination and use of statistics on international migration.

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The draft was discussed by statistics and migration-policy specialists, as well as by experts of international organizations, at the joint workshop of the UNECE and the United Nations Population Fund (UNFPA) conducted in December 2010 in Istanbul.

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¹ <http://www.un.org/esa/devaccount/projects/2008/0809A.html>

List of acronyms

CES	Conference of European Statisticians
CIS	Commonwealth of Independent States
EECA	Eastern Europe and Central Asia
EECCA	Eastern Europe Caucasus and Central Asia
IDP	Internally displaced persons
ILO	International Labour Organization
IOM	International Organization for Migration
OECD	Organisation for Economic Co-operation and Development
UN	United Nations
UNDESA	United Nations Department of Economic and Social Affairs
UNECE	United Nations Economic Commission for Europe
UNFPA	United Nations Population Fund
UNHCR	United Nations High Commissioner for Refugees
USAID	United States Agency for International Development
USSR	Union of Soviet Socialist Republics
WB	World Bank

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1. Introduction

In speaking about migration, we deal with data that help us evaluate the scale of migration and see more clearly in what way it affects countries of origin and countries of destination. But do we ever think about the methods for collecting these data or about the difference between statistics of different countries or about the peculiarities of measuring such a complicated phenomenon?

Who is this Guide for? It's addressed to all those who are interested in migration studies or who professionally deal with migration statistics, particularly officials, statisticians, scholars and representatives of mass media.

The examples from practice and the international recommendations which serve as the basis for this paper should stimulate interest in – and better understanding of – the different types of international migration statistics. We hope that they will also facilitate the development of international migration statistics at both national and regional levels. The more competent the users and providers (producers) of statistical data, the more accurate the collection, analysis and publication.

International experts have pointed out that many officials and researchers consider the combination of the words “migration statistics” and the discussion of migration statistics issues to be a dull and boring subject and often express scepticism and apathy towards the topic. The data seem either too complicated to delve into the details or too simple and thus not considered worthy of a careful study. This belief is often explained by a lack of knowledge of the main principles of collecting, compiling and analysing the statistics.

Specialists working with social and demographic statistics or officials involved in migration-regulation issues are expected to have expertise on migration statistics. However, due to high personnel turnover and frequent restructuring in national statistical offices and in public executive and administrative bodies, new personnel need to absorb large volumes of information on migration in a short time.

As a rule, not all will manage to read and master specific materials, the majority of which are often available only in a foreign language. We therefore hope that this *Practical Guide*, which provides basic information about migration statistics, will help these specialists to quickly grasp the relevant issues.

The same applies to researchers and journalists, especially those who are new to migration issues. Familiarity with this *Guide* will help them avoid interpreting migration data incorrectly or in a shallow way and understand better the nature and peculiarities of these statistics.

The *Guide* also aims to provide a systematic description of the main categories of migration statistics and of data sources, and to illustrate the major challenges of interpreting and publishing data.

It illustrates the practices of collecting and processing data with the help of screenshots or tables from the websites of national statistical and administrative agencies or international organizations. Some good examples are taken from the practices of western countries that have strong traditions of collecting and publishing migration statistics.

However, in almost every country we can find bad as well as good examples. The bad examples included here should not be taken as criticism of any country or agency but merely as typical cases that can be found in practice, and that should be avoided.

Why do we need statistics on migration? Migration affects population dynamics, the demographic characteristics of a population, and its ethnic and religious composition. It also plays a major role in the labour market. Often the consequences of migration are considered within a security context, i.e. political, social, which also requires statistical evidence. And in recent years, the impact of migration on the health of the host societies has also been frequently discussed.

We can't make population projections without good quality statistics on migration, especially mass migration. Accurate measurement of population size and structure is necessary for more efficient allocation of resources of national and regional budgets. Today, migrants' remittances account for a substantial share of GDP and population income in many countries throughout the world.

Quantitative characteristics of migration are required to understand the nature of the above-mentioned processes, evaluate current and predict their future impact. Traditionally we seek answers to the following questions²:

² For the full list of questions related to migration measures see UN Recommendations on Statistics of International Migration, revision 1, 1998, paragraph 10.

How many:

- migrants arrived at the country or left for residence abroad in specific years?
- migrant workers were employed in our country (or nationals of our country were employed abroad)?
- residents of our country were born abroad?
- nationals of (or persons born in) our country reside abroad?
- people cross our borders annually?
- foreigners acquire citizenship of our country?

Who are the migrants, as described by:

- countries of origin and destination?
- citizenship?
- sex and age?
- ethnicity?
- reasons to move?
- skills and occupations?
- education?
- family status?

Many of these questions often remain unanswered either because statistics aren't available or aren't processed, or because they haven't been published or because people don't know where to find them. Despite the growing interest in international migration, even the most general statistics on migration flows and stocks in many countries are still incomplete, out of date or inexistent.

A country can't easily evaluate positive or negative outcomes of migration if it doesn't have information about the scale and composition of the migration. In such cases, the aims of policies on migration are blurred, and the funds allocated for achieving those objectives are unlikely to relate to the reality. Migration policy, if not supported by reliable quantitative data and statistical reference points, becomes a waste of time and money.

2. Definitions and concepts in international migration statistics

Because movements of people vary in terms of the direction (inward or outward), the duration of migrants' stay or absence, the distance, the purpose, etc., migration isn't easy to measure. The number of movements tends to exceed the number of migrants, because the same person can move several times during a lifetime (or even during the period of observation). Short-term trips may be so frequent that they are hard to count.

So, what or who do we want to count? What are the criteria for defining the required categories of migrants? The number of criteria is very small (table 1).

Table 1. Basic criteria used for systematizing and recording migrants.

<i>Criterion/concept</i>	<i>Type of movement</i>
Direction of migration	<ul style="list-style-type: none"> In-migration: (entries, arrivals, immigration) or Out-migration: (exits, departures, emigration) 
Administrative border crossing	<ul style="list-style-type: none"> Administrative border within the same country – internal migration State border of a country – international migration 
Duration of absence /stay	<ul style="list-style-type: none"> Short term or long term Temporary stay or permanent residence 
Reason / purpose / for move (factors, motivation etc)	<ul style="list-style-type: none"> Voluntary: free choice / decision of a migrant (move for job, education, family formation or reunification, etc. Forced: no choice of forced decision (political prosecution, armed conflicts, ecological disasters etc.) 
Legal status	Regular/irregular (entry, stay, employment) 

We can't apply any one of these criteria in isolation. For example, in order to count long-term migration we need to take into account the direction of migration as well as border crossing and duration of stay. Labour migration is counted with reference to: direction of migration (in-migration of foreigners, out-migration of nationals); duration of stay (seasonal, temporary, and long-term); and employment as purpose of migration.

In the table 1, citizenship isn't listed as a criterion. Although not directly linked to migration as such, it may still influence statistics if the country has different regulations for nationals and foreigners. For example, citizens of countries that are members of political or economic unions are often not covered by the available statistics since they may not need a work or residence permit. In many countries of the European Union, for instance, only third-country nationals are covered by statistics based on the administrative registrations of the authorities that regulate migration.

Apart from migration statistics, there are other statistics that are closely connected to migration which are essential for developing migration policy. For example, immigrants may change their status: a short-term migrant may become a long-term migrant and eventually a citizen. In this case, the statistics on the number of people who acquired long-term residence status or citizenship also characterize the migration processes in this country, and should thus be included in the national statistics of the international migration system.

The types of migration and categories of migrants that countries measure tend to vary. In the late 1990s, the United Nations revised the recommendations on definitions for counting international migrants in order to make the countries “speak the same language” and make the statistics at least partially comparable. The recommendations identify criteria for being a migrant and for belonging to a certain category of migrants.

In theory, standard definitions and criteria help to harmonize and make the data compatible. However, experts emphasize that the challenge of applying common definitions of migrants persists. For practically unavoidable reasons, some countries and their national statistical agencies apply their own criteria and concepts (Ann Singleton, 2009).

Definition of international migrant and the concept of place of usual residence

According to the basic definition, an international migrant is “any person who changes his or her country of usual residence” (§32, UN Recommendations on Statistics of International Migration (Rev. 1), 1998).

What's the place or country of usual residence? In fact Russian-speaking experts and researchers traditionally use the term “permanent residence”, though this often corresponds to the legal status of a person rather than to his/her actual stay in a given region, country or town. Despite the apparent simplicity of the term, it is ambiguous. Migration statistics treats this term seriously: clear understanding of place of usual residence is necessary in order to

distinguish between the most important categories of migrants – long-term migrants, short-term migrants and visitors who make regular but very short trips.

After prolonged discussion, international experts decided to define a person's country of usual residence as "the country in which a person lives, that is to say, the country in which he or she has a place to live where he or she normally spends the daily period of rest" (§32, UN Recommendations on Statistics of International Migration, 1998).

The Conference of European Statisticians specified that a person's place of usual residence is that at which he/she spends most of his/her daily night-rest. (CES Recommendations for the 2010 Censuses of Population and Housing, UN, Geneva, New York, 2006).

Such an approach can be also used for measuring internal migration. In this case, however, the concept of a place of usual residence should not be understood as an administrative unit (as opposed to an apartment or a house). Crossing the borders of this administrative unit (within the national borders) is counted as a migration event associated with the change of place of usual or permanent residence.

For census purposes, when it is extremely important to define if a person should be included in the resident population, the UN recommendations establish one more criterion—the threshold of time spent in a country of destination. It is therefore recommended that countries apply a 12-month limit in one of the two following cases depending on the point of view of the national statistical agency:

(a) a person is included in the resident population if in the last 12 months he or she has lived in a given place continuously for at least 6 months and one day, with temporary absences connected with holidays or work assignments not taken into account, or if he or she intends to stay in a given place for at least the next 6 months;

(b) a person is included in the resident population if his or her place of usual residence is a place where he or she has lived at least 12 last months, with temporary absences connected with holidays or work assignments not taken into account, or if he or she intends to stay in a given place for at least the next 12 months.

The resident population includes not only nationals but also foreigners, persons without citizenship, undocumented persons, applicants for asylum and refugees (UN DESA Principles and Recommendations for Population and Housing Censuses, Rev. 2, UN New York, 2008).

These approaches should be understood and taken into account when compiling migration statistics for counting resident population born abroad or having foreign citizenship.

In practice, when collecting migration data, few countries can follow the United Nations recommendations in defining the place of usual residence. National legislation and national definitions determine the basis for the collection of statistics, which is the main reason for the incompatibility of data from different countries.

In most countries of Eastern Europe and Central Asia, migration statistics depend on the legal registration of a migrant in a new place of permanent residence. Only a few countries of the region mention the time threshold that makes it possible to change temporary migrant status into permanent resident status.

In Kazakhstan and Ukraine, for example, this threshold is 6 months, in Armenia 3 months. In the Russian Federation, however, the registration of a migrant at his/her place of residence is purely administrative and legal, and is not associated with any minimal duration of stay at the new address.

When dealing with migration statistics, we're often unclear about what the statistics denote: the number of migration events or the number of people who migrate? On the one hand, migration can be treated as a demographic event experienced by a person once or several times in the course of his/her life or within a period of observation (one year, for example). In practice, however, the statistics could be referring to the number of **events** and not to the number of persons experiencing these events.

Long-term and short-term migrants

International recommendations define two types of migrants by the time criterion. *Long-term* migrants are people who move to a country other than their usual residence for at least a year, so that the destination country becomes their new country of usual residence. In other words, a person must have (a) had a usual place of residence in one country, (b) crossed an international border and entered another country and (c) established a new place of usual residence in the country of destination for at least 12 months.

A more accurate, "classical" definition implies all above criteria: a long-term migrant is “*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 an emigrant and from that of the country of arrival the person will be an immigrant*” (UN Recommendations on Statistics of International Migration, 1998).



Short-term migrants are persons who move to a country other than their country of usual residence for a period of *at least three months but less than twelve months*. Movements for the purpose of recreation, holiday, visits to friends or relatives, business, medical treatment or religious pilgrimage are not regarded as short-term migration³. The country of usual residence for a short-term migrant is the country of destination for the time period of his/her stay there (UN Recommendations on Statistics of International Migration, 1998).

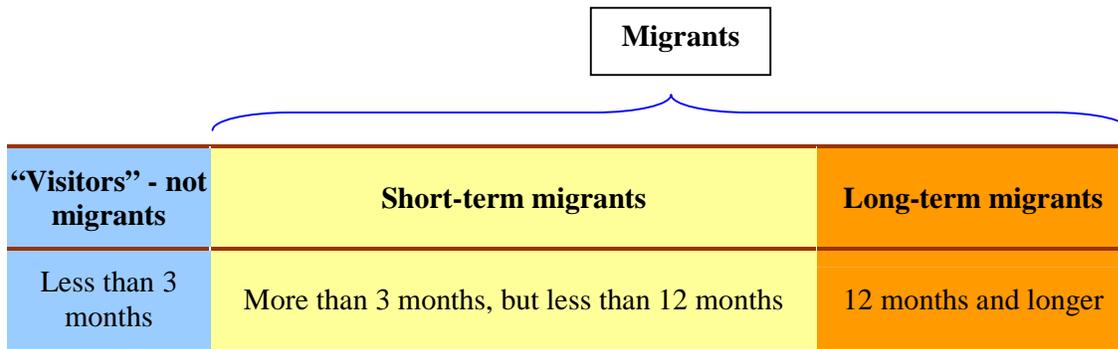
Short-term migration is the most important component of migration flows; the measurement of short-term migration is taken very seriously. In many countries short-term migrants' flows, especially short-term labour migrants' flows, exceed those of permanent residence migrants significantly. That's why for such countries measuring short-term migration is vital for developing their migration policy and evaluating migration outcomes.

Persons such as tourists who move for less than three months are considered "visitors" and are covered by other areas of statistics. The number of this category of people can be used for regional infrastructure planning (construction of hotels, etc.) and for the tourism industry in general. Statistics on short-term labour migration, like seasonal migration, are also of importance since this kind of migration brings significant economic changes both to the countries of origin and to the destination countries.

For certain descriptive and analytical purposes—e.g. concerning nationals working abroad or foreigners working in the country—it may be of interest to have statistics on those who commute across international borders every day or every week. In certain countries and regions, this is common.

³ In other words, only employment, education and forced circumstances are considered as reasons for migration.

Categories of migrants by duration of stay (absence) criterion



Data on long-term migrants are important for evaluating the dynamics of population size on the national and regional (within the country) levels.

An immigrant is counted when he/she enters the resident population of a destination country. An emigrant should be excluded from the population of the country of origin if he/she is absent for more than one year. The terms “immigration” and “emigration” are implied depending on which country produces the statistics. For the destination country, a person who arrives is an immigrant, for the country of origin the same person is an emigrant.

3. Main categories in international migration statistics: flows and stocks

When working with migration statistics it is important to distinguish between migrant stocks and migration flows. To grasp the significant differences, see the data in table 2.

Table 2. Difference between migrant stocks and migration flows.

<i>Flows</i>	<i>Stocks</i>
In 2004, 29,700 immigrants, Tunisian citizens, arrived in Italy.	On 31 December 2004, 59,300 Tunisian citizens resided as holders of stay permits in Italy.
In 2009, the Migration Service of the Russian Federation issued 14,300 residence permits.	On 31 December 2009 over 51,000 holders of residence permits resided in the Russian Federation.
In 2000, 47,400 immigrants arrived in Kazakhstan.	According to Population Census of 1999, in Kazakhstan 2.1 million of resident population were foreign-born and 85,000 had foreign citizenship.

Source: data of national statistical agencies and the Russian Federal Migration Service

These numbers are so-called “absolute indicators of migration”, in contrast to relative indicators—rates, percentage shares and indices. They show how many migrants reside in a country as of a given date, i.e. *at a certain moment*, and how many migration events or procedures associated with migration have occurred within a *period of time*. The difference between these two categories is illustrated below:



Migrant flows (migration flows)—the number of migrants that have moved from one country to another within a certain period of time, as a rule within one year, or the number of migration events that have occurred within the same period. Often the data on the number of residence permits or work permits issued within a certain period can also be considered as statistics of migration flows, though it must be taken into account that the number of procedures doesn't always coincide with the number of migration events or number of migrants.

Immigration flows are generally more accurately measured than *emigration flows*. And the migration data on nationals aren't as complete and accurate as the migration data on foreigners. The quality of data on flows is affected by national rules of measurement and temporary criteria established for counting migrants in countries of origin and destination.

In working with migration statistics, we may come across statistics on both stocks and flows. If we see that, the data show a number of events or procedures that occurred within a period of time, this would mean that we have statistics on flows. If the data show the number of persons with a migrant status living in the given territory at a given moment, it would mean that we have statistics on stocks.

Stock (number) of migrants—a group of persons who directly or indirectly experienced a migration event (i.e. they themselves migrated or they are descendants of migrants) and are living in a country at a given moment. Stocks of migrants differ according to the purpose of research or purpose of policy:

Table 3. Criteria of migrant stock identification

<i>Type of immigrant stock</i>	<i>Criterion</i>
– Foreign-born	Country of birth — allows identifying foreign-born population independently of current citizenship – Persons living in the country but born in another country.
– Foreign citizens	Country of citizenship — shows the foreign population of a country; that is all persons who have that country as country of usual residence and who are the citizens of another country (independently of country of birth).
– Foreign origin or background	Country of birth of parents (independently of current citizenship) — shows how many residents have foreign origin or immigrant background. Even if one parent is foreign-born, descendants are identified as population of foreign origin.
– Ethnic group members	Race or ethnicity — this criterion is hardly applicable to population of the countries with historically multiethnic population, regardless of country of birth and citizenship.
– Ever international migrants	Experience of residence abroad — this criterion covers foreign-born and return migrants who have ever resided abroad for 1 year and longer.
– Returned citizens	Experience of residence abroad — nationals that had resided abroad for one year and over and now reside in the country of their citizenship.

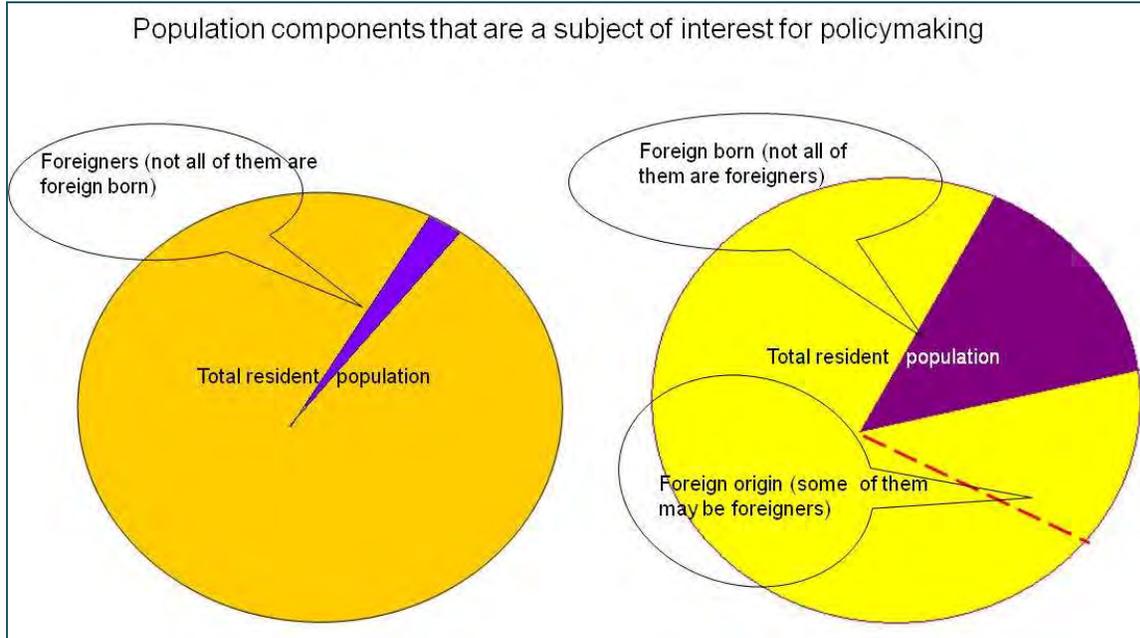
Each criterion has its pluses and minuses, and usually the above categories can be mixed with others. It's therefore worth using a combination of criteria and additional statistics to get a more objective picture of the migration component within the population structure. For example, the statistics on country of birth should be combined (cross-tabulated) with the information about the year when migration event occurred or with duration of stay, year of naturalization, etc.

The chart below (Figure 1) is a simplified example of the way the data on citizenship or place of birth show the migrant stocks within the resident population of a country.

Most often place of birth is used as the criterion to define the stock of international migrants. The question about place of birth is comprehensible, not ambiguous (if no change of international borders took place) and shows true migration (Billsborrow, Zlotnik 1994). Yet

this criterion makes it impossible to figure out the second generation of migrants (i.e. persons whose parents are migrants). Besides, many foreigners could have migrated long ago and could have been naturalized in their destination country. Sometimes the national borders also change when a country joins or abandons some territories.

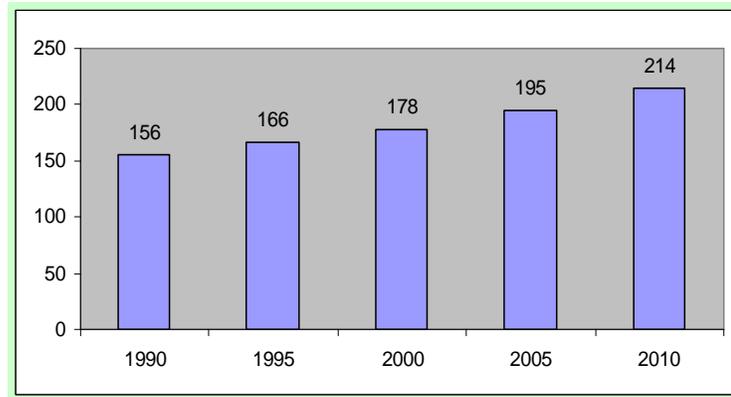
Figure 1. Pattern of population with international migrant stocks



In countries that have recently been created through the division of a former unified country such as Yugoslavia, the Soviet Union or Czechoslovakia, the application of the place of birth criterion would artificially increase the stock of international migrants born “abroad”. Many, if not the majority of these international migrants have moved within the common national border as nationals of the united country.

According to UN estimates, more than 200 million people nowadays live outside the country of their birth. However, this figure cannot characterize the migration impact on the destination countries if the year of arrival, sex and age of migrants and their citizenship etc. are not taken into account.

Figure 2. World population living outside the country of birth, million



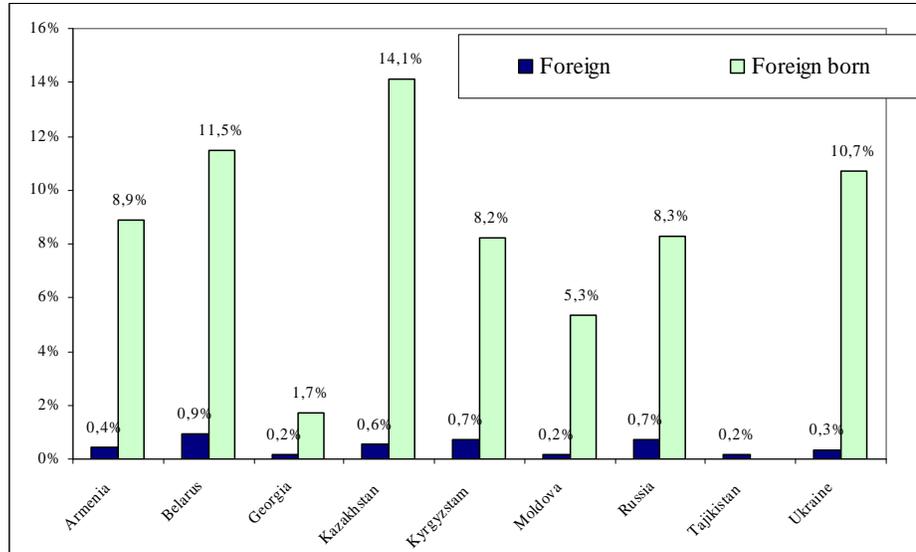
Source: UN DESA database

Foreign citizenship is a parameter of migration that is important for policymaking. Although usually easily identified, which is an advantage, it's not very “stable”. But this is a characteristic that for the individual may change value due to the naturalization process, i.e. statistics can fast become outdated.

Citizenship isn't always connected to migration. For instance, children born to foreigners residing outside the country of their citizenship may have citizenship of their parents and thus be counted as “migrants” in their country of birth though they have not migrated.

People may also have multiple citizenship, a factor that's not always covered by statistics. As a rule, foreign-born population is much more numerous than population with foreign citizenship. Figure 3 shows the results of the year 2000 censuses in the CIS countries. It's evident that the share of persons with foreign citizenship in the resident population is several times less than that of people born abroad (these being mostly people from other Soviet republics who arrived before the break-up of the Soviet Union).

Figure 3. Stocks of foreign and foreign-born population as percentage of the resident population. Censuses round-2000*



Source: data of national statistical agencies. *Statistics for persons born abroad were not processed by the Statistical Agency of Tajikistan.

Immigrant (or migrant) background is a most interesting and important characteristic of stock. It's comprehensive, stable (since place of birth is unalterable) and objective. The main challenge is the availability of information about parents of persons born in the country they're residing in.

Countries that keep population registers can often use these to obtain information on the parents of all individuals who were born in the country. Besides, in most cases one can find out where each parent of a given person was born. Some countries collect immigrant background data by means of household surveys or population censuses when respondents are asked a question about the place of birth of their parents. In Eastern European and Central Asian (EECA) countries, such questions are not asked during censuses.

The criterion of *race or ethnicity* is hardly applicable in the countries of EECA, especially in those with historically multiethnic populations. Moreover, the question on ethnicity may be a sensitive one, and many respondents may refuse to answer it or may provide incorrect information. This criterion is almost never used alone or as the main criterion to identify migrant stock. More important are the questions about mother tongue and language spoken at home, religion, etc. Quite often these characteristics aggregated in statistics help to evaluate the integration process and possible assimilation of immigrants.

What's the relationship between stocks and flows? Before becoming part of the group comprising migrant stock, a person—for instance, a foreigner born abroad—has to participate in a migrant flow, that is, to arrive in a country at some moment. Therefore, the statistics on migrant stocks for a specific period could be produced as the accumulated result of flows that occurred within a certain period, including those present at the start of the period and excluding those who have died or left the country.

At this point it makes sense to introduce the concept of "*migration cohort*"—a group of persons who migrated within the same period. Migrant stock could be presented as a sum of all migration cohorts who have survived and haven't migrated to another country by the moment of measurement. A cohort size is less than the corresponding flow size because of those who left or died.

Example. The 2001 population census in Ukraine showed that 5,256,923 persons included in the resident population had moved to Ukraine from abroad. The data on the duration of their continuous residence were transformed into the data on the years of their arrival. It thus became possible to present migrant stock as a sum of migration cohorts. Taking into account that 5,156,240 persons were foreign-born, we can suppose that almost all international lifetime migrants were born abroad. In this case, 85 per cent of foreign-born persons moved to Ukraine before the break-up of the USSR.

Table 4. Distribution of international lifetime migrant stocks by periods of arrival to Ukraine as of the moment of census of 2001

Year of arrival	1997-2001	1992-1996	1991 and earlier	Unknown	Total migrant stock
Duration of residence	0-4 years	5-9 years	10 + years		
Cohorts of life-time international migrants	288 985	500 713	4 462 828	4 397	5 256 923

Source: State Statistics Committee of Ukraine

Data on flows that occurred during several successive years can be summed up, whereas data on stocks cannot. For instance, we can say that between 2000 and 2006, about 101,000 immigrants moved to Belarus, while the size of the foreign population stock of Belarus should be measured only as of a certain moment of time. Thus, at the end of 2006 the stock of foreigners with residence permits in Belarus was equal to 117,300 persons.

Table 5. Flows and stocks of international migrants in Belarus

	<i>2000</i>	<i>2001</i>	<i>2002</i>	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>
Number of foreigners arrived for residence	18 517	17 135	16 941	14 197	11 842	10 484	11 869
Number of foreigners with residence permits	94 570	106 209	111 764	114 780	110 305	111 098	117 372

Source: National Statistical Committee of the Republic of Belarus

4. Main indicators of migration

In migration statistics, we deal with absolute and relative indicators. Absolute indicators include the number of migrants (or migrant stock) residing on the given territory at a single point in time and the volume of migration inflows (number of arrivals) and outflows (number of departures). We measure migrant *stocks* in the course of population censuses, surveys or using administrative sources when we can get an indicator for a certain date.

We measure migrant *flows* by registering each change of place of residence within a certain time interval. Of critical importance is, however, the net migration indicator, which measures the residual between the number of those who arrived at and those who left a given territory. In the related Russian-language sources, this indicator is often referred to as *migration “saldo” (balance)*. Positive net migration can be referred to as *migration increase* or *net immigration*. Negative net migration means *migration decrease* or *net emigration*. Sum of in- and out- migration flows (the volume of migration) is called “migration turnover”.

Most often, a country has net immigration with one group of countries, and net emigration with another (Table 6). Thus, net migration is the sum of two values with opposite signs—positive and negative. How can we then measure the contribution of each country to total net migration? The best solution will be to make separate calculations for net emigration and net immigration and see the share of a country’s contribution to each of the two components of general net migration.

Table 6. Example of calculating the share of some countries in net immigration and net emigration of Kazakhstan in 2008 and 2009

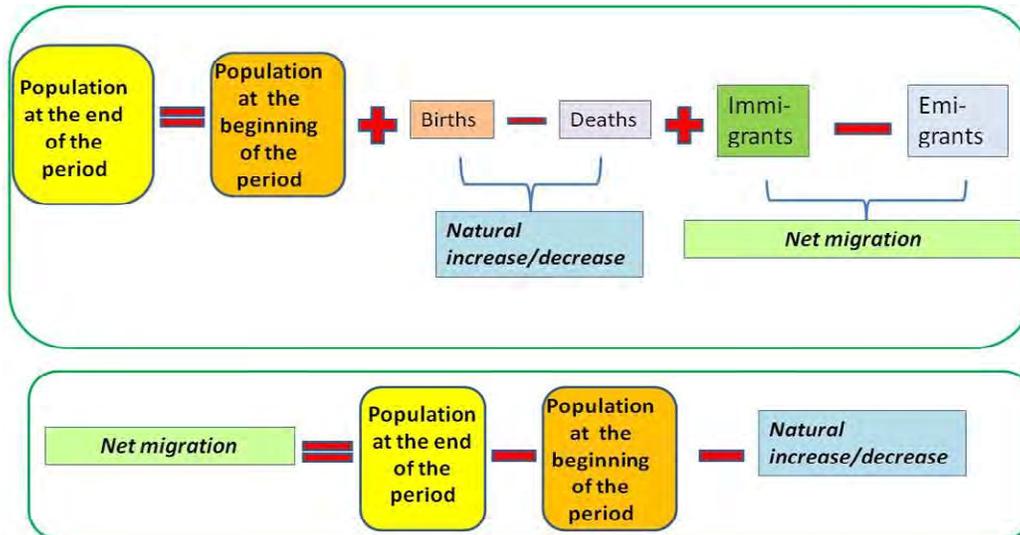
	<i>Absolute indicators (persons)</i>		<i>Share of a country in net immigration and net emigration (percentage)</i>	
	2008	2009	2008	2009
Azerbaijan	99	147	0.3	0.5
Armenia	80	100	0.2	0.3
Belarus	-523	-573	1.6	2.5
Kyrgyzstan	1 274	1 202	3.7	3.9
Rep. of Moldova	31	1	0.1	0.0
Russia	-31 207	-21 147	93.8	91.2
Tajikistan	101	146	0.3	0.5
Turkmenistan	2 515	2 087	7.3	6.8
Uzbekistan	16 315	18 440	47.2	60.1
Ukraine	-80	-53	0.2	0.2
Germany	-1 042	-953	3.1	4.1
Israel	-55	-72	0.2	0.3
Canada	-125	-197	0.4	0.8
Mongolia	7 409	3 470	21.4	11.3
Turkey	159	210	0.5	0.7
United States	-220	-199	0.7	0.9
Others	6 569	4 893	19.0	15.9
Net immigration	34 552	30 696	100.0	100.0
Net emigration	-33 252	-23 194	100.0	100.0
Total net migration	1 300	7 502		

Based on information published by the Agency of Statistics, Kazakhstan

The population of a country or region changes because of two components⁴: natural and migration increase (decrease). Net migration indicators are used for estimating the current population with the help of a demographic balance equation (Figure 4).

⁴ If there is no change of administrative borders of the territory.

Figure 4. Scheme for estimating migration through demographic balance equation



If migration statistics are produced without accuracy, one could calculate net migration on the basis of vital statistics data, which is usually produced fairly accurately. The scheme in the lower (figure 4) box shows how to estimate net migration within a certain period knowing the population size for two exact dates (most often on the dates of two successive censuses).

Absolute indicators can't always give us a realistic picture of the migration situation and its peculiarities, especially when we need to compare migration in different regions or countries. In this case, it is better to use relative indicators. The easiest way to do this would be to present the data on migration flows and stocks (by countries of origin, migrants' gender, age, etc.) in percentages.

However, when making an overview of migration flows we should also measure their intensity. For this, we can employ different indices. Migration intensity indicators are the main ones; they are measured as a number of movements per capita for average mid-year population⁵ of a country of destination or a country of origin. Thus, we get an indicator in per thousand

$$K = \frac{M}{P} * C, \text{ where}$$

M – Number of migrants or movements

P – Population size of a given area

C – Constant equal to (as a rule) 1,000 per thousand.

⁵ Sometimes it is reasonable to use population at the beginning of the year (period).

Main indicators of migration

If the values are too insignificant it makes sense to use per 10,000 population. As the number of rates and other migration indices is fairly limited, you may find more information on how to calculate and analyse them in relevant sources (Denisenko, Kalmykova, 2009).

5. Sources of migration statistics

Although different classifications of data sources exist, they can be grouped into three categories (classification by Cantisani G., 2009):

- Censuses and household surveys
- Administrative records
- Data collected at the borders at international entry and exit ports

Table 7. Main data sources on migration and subjects for measurement

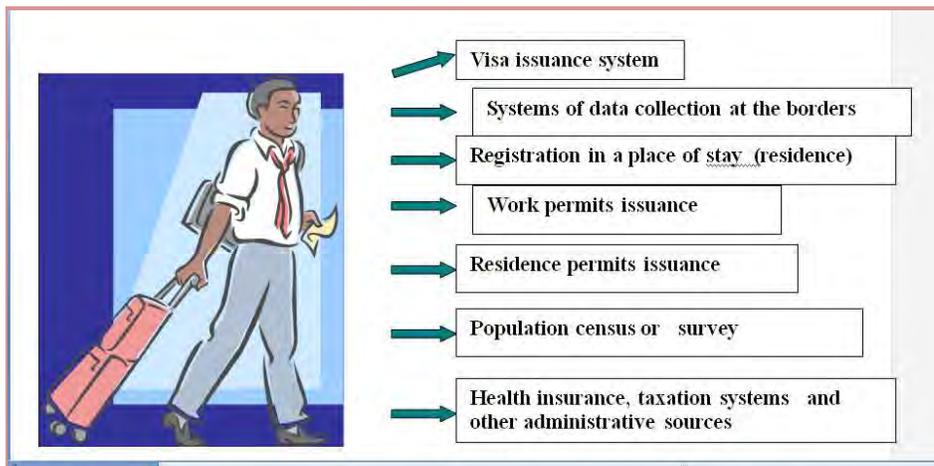
<i>Sources</i>	<i>Subject for measurement</i>
Population censuses and sample surveys (household or migrants households)	Mainly migrant stocks (and flows if special questions on recent migration are asked.)
Population registers or administrative systems of population registration in a place of residence (as a rule - run by tax authorities, police or ministry of justice), may only be kept locally or there may be a central register	Flows: migrants registered or deregistered within time interval Stocks: resident population with immigrant characteristics on a certain date
Administrative systems processing migrants' applications for residence or work permits, asylum or refugee status, citizenship etc.	'Flow-type' data: submitted applications; decisions on applications (approved or rejected); issued or cancelled permits Stocks: (if applicable) number of permit or status holders at a certain date
Systems of data collection at the borders (including electronic registration, border cards and passengers surveys in the ports)	'Flow-type' data: number of border crossings within the time interval; number of administrative procedures related to violation of rules of entry or exit

Regularization campaigns can also be a source of information on international migration, particularly on stocks of irregular migrants who regularized their status. However, this source is used as a complementary one to the regular systems of data collection.

Statistics on migration are usually a secondary product of administrative practices of the state. National statistical offices are responsible only for conducting population censuses and sample household surveys. The remaining data (which make up the biggest chunk) are collected by administrative bodies. Some administrative agencies (e.g. ministries and services) regularly transmit the collected microdata on individuals and/or events to national statistical offices for further processing and publication.

The role of administrative statistics is highly important. Migration phenomena means that in a country of destination many migrants have to pass through several administrative procedures and almost each time they're counted to be later included in statistics. Obviously, the categories of migrants within this scheme of data collection can overlap. To get a more comprehensive and detailed picture of migration these data should be used in combination (Billsborrow and Zlotnik, 1994).

Figure 5. Systems of data collection that can register a migrant



The number of systems will depend on the national legislation and enforcement practices. During the same period, a migrant may not be counted in all the administrative systems associated with migration, depending on his/her citizenship, the purpose of the trip, the duration of stay in a country of destination and other factors.

Rules of entry, registration and employment may vary for migrants coming from different countries. Not all migrants need a visa to enter another country, or a permit to legally reside and be employed there. These practices can be found everywhere—in EU countries, the CIS and other countries united by an international agreement. In such cases, the statistics on a number of issued visas, work permits or residence permits will not cover all migrants.

Citizens of Belarus, for instance, don't need a work permit to get a legal job in the Russian Federation. That's why in statistics on the countries of origin of labour migrants there's no

such category as “coming from the Republic of Belarus”. And citizens of Kazakhstan, Kyrgyzstan and Belarus don't need to obtain a residence permit in the Russian Federation before applying for Russian citizenship. This explains why the Russian Federal Migration Service has little information about residence permits issued for the citizens of those republics. The statistics will “see” only those of them who don't wish to get Russian citizenship, but plan to stay for a long period of time and to do so need a residence permit. To interpret the migration statistics properly, specialists need to be aware of such peculiarities.

Several agencies/bodies deal with migration regulation, providing different types of statistics. The national statistical office collects the statistical data by conducting censuses and surveys⁶, and also by processing the data from administrative sources. In fact, there is no international standard specifying what data should be collected and by which agency.

Users and experts in every country should know from which ministry or service they could get the relevant data. This could be the ministry of interior, the ministry of justice, the ministry of state security, the migration service, the ministry of labour or the ministry of education. In some countries, the same authority is responsible for different procedures and collection of data related to migrants. In other countries, e.g. Norway, the different agencies regulating migration may use a common system for registering information. In this way, the different types of data collected would be comparable and consistent. For instance, the Russian Federal Migration Service collects data at the borders (through migration cards), registers the domestic and foreign population by place of arrival and residence, issues residence permits and work permits, and reviews applications for citizenship.

5.1 Censuses and population surveys

Population censuses and sample surveys are often referred to as the same type of data sources because, for both, information is collected from respondents' replies to questions about their own situation and experience, and sometimes also from replies of other household members.

Some countries with developed population registers have been conducting censuses without traditional questionnaires and direct participation of the population. They collect the information about population, including data on migration, by automatically combining the personal data from different registers. A unique personal identification number is used in these registers to link the information about each person, i.e. the census is based on administrative sources. The majority of countries, however, conduct the censuses in the traditional way, with the help of interviewers and questionnaires⁷. Censuses and population surveys have their own peculiarities regarding the collection of migration statistics.

⁶ Very often international organizations or statistical agencies of developed countries provide financial or organizational support, however the key role in the censuses or national sample surveys is played by the national statistical service.

⁷ Within the 2010 round of censuses in the UNECE region 27 (out of 40) countries have already done or plan to do it in a traditional manner. (P.Valente, 2010)

Population census

The census is considered to be the most important source of information on *migrant stocks*. The results of both international and internal migration can be measured via population census. Combining characteristics that are directly related to migration with other variables provides the richest information about migrants and gives an opportunity to compare migrants and non-migrant populations. The census is a valuable source of migration data as it provides information about citizenship of respondents, about internal and international migrants, about ethnic and cultural characteristics of the population.

One uses several criteria to describe migration in a direct or indirect way. Some are considered to be more important and in the international recommendations these are called "core topics". There are also other criteria of migration studied with the help of censuses: although these are called "non-core topics", they give the most detailed information on migrants. The data on core and non-core topics are obtained by means of a few questions asked in the course of a census:

Table 8. CES Recommendations on migration-related questions in the census programme of 2010.

<i>Core topics</i>	<i>Non-core topics</i>
<ul style="list-style-type: none"> • Country of citizenship • Ever resided abroad and year of arrival in the country • Previous place of usual residence and date of arrival in the current place (country) 	<ul style="list-style-type: none"> • Country of previous usual residence abroad • Total duration of residence in the country • Place of usual residence five years prior to the census • Reason for migration • Country of birth of parents • Citizenship acquisition • Persons with foreign/national background (derived non-core topic) • Population with refugee background (derived non-core topic) • Internally Displaced Persons (IDPs) (derived non-core topic) • Ethno-cultural characteristics that may relate to migration: ethnicity, language, religion

Source: Conference of European Statisticians. *Recommendations for the 2010 Censuses of Population and Housing*. Geneva 2006

Most countries of the region use the question on country (place) of birth and citizenship in the Census questionnaire while often omitting the other core topics.

Table 9. Number of countries that included topics relevant to measuring migrants stocks in the 2000 round census, UNECE region⁸

<i>Question</i>	<i>Included in census questionnaire</i>	<i>Not included in census questionnaire</i>
Country of birth	44	0
Citizenship	42	2
<i>Other questions related to citizenship</i>		
Multiple citizenship	20	24
Citizenship by birth	8	36
Parents' place of birth	8	36
Ethnic group	27	17
<i>Adjacent questions</i>		
Language	33	11
Race	2	42
Religion	22	22
Purpose of migration	11	33

Source: Measuring Population and Housing. Practices of UNECE countries in the 2000 Round of Censuses, UNECE 2004

Almost all countries of the Eastern European and Central Asian region experience considerable temporary migration. To estimate the stock of temporary and short-term foreign migrants staying in the destination country, a special short questionnaire is used. For example, the Russian Federation and Kazakhstan used such a questionnaire during the 2000 and 2010 censuses. Table 10 shows what questions related to migration are to be included (or have been included already) in the census questionnaires in 2010 by CIS countries.

The census can be used to estimate emigration when this is difficult to measure in a country of origin by means of other systems of data collection. First, this approach is used by countries that experience considerable migration outflow—both long-term and temporary. Censuses here help to collect information about absent population using a few questions of the so-called "emigration module" in the questionnaire. In the paragraph devoted to emigration measurement, we will explain more about these questions and the approach.

In general, the choice of questions to be included in census questionnaires should be determined by the national interests of a country and its need for statistics. The countries of Eastern Europe and Central Asia are improving their questionnaires to obtain more information about migration. The current round of censuses may bring to light data that has never been collected before.

⁸ Table 9 presents the data on CIS countries that provided information for aggregating the material.

Table 10. Migration-related questions in the questionnaires of the censuses of 2000 and 2010 in selected CIS countries⁹.

<i>Questions of a census programme</i> ¹⁾	<i>Round</i>	<i>Azerbaijan</i>	<i>Armenia</i>	<i>Belarus</i>	<i>Kazakhstan</i>	<i>Kyrgyzstan</i>	<i>Moldova</i>	<i>Russia</i>	<i>Tajikistan</i>	<i>Ukraine</i>
Place of birth	2000	◆	◆	◆	◆	◆	◆	◆	◆	◆
	2010	◆	◆	◆	◆	◆	◆	◆	◆	◆
Citizenship	2000	◆	◆	◆	◆	◆	◆	◆	◆	◆
	2010	◆	◆	◆	◆	◆	◆	◆	◆	◆
- dual citizenship	2000	◇	◇	◇	◇	◇	◆	◆	◇	◇
	2010	◇	◆	◇	◇	◇	◆	◆	◆	◇
Ethnicity	2000	◆	◆	◆	◆	◆	◆	◆	◆	◆
	2010	◆	◆	◆	◆	◆	◆	◆	◆	◆
Religion	2000	◇	◇	◇	◇	◇	◆	◇	◇	◇
	2010	◇	◆	◇	◆	◇	◆	◇	◇	◇
Command of language (titular/majority language)	2000	◇	◆	◇	◆	◇	◇	◆	◆	◆
	2010	◆	◆	◇	◆	◇	◇	◆	◆	◆
- mother tongue	2000	◆	◆	◆	◇	◆	◆	◇	◆	◆
	2010	◆	◆	◆	◆	◆	◆	◆	◆	◆
- command of other languages	2000	◆	◆	◆	◆	◆	◆	◆	◇	◆
	2010	◆	◆	◆	◆	◆	◆	◆	◆	◆
Language used for communication at home	2000	◇	◇	◆	◇	◇	◆	◇	◇	◇
	2010	◇	◇	◆	◇	◇	◆	◇	◇	◇
Permanent residence in the given place	2000	◆	◆	◆	◆	◆	◆	◆	◆	◆
	2010	◆	◆	◆	◆	◆	◆	◆	◆	◆
Since what time you have been residing in this place	2000	◇	◆	◆	◆	◆	◆	◆	◆	◆
	2010	◆	◆	◆	◆	◆	◆	◆	◆	◆
Temporary residence	2000	◆	◆	◇	◆	◆	◇	◇	◆	◆
	2010	◆	◆	◇	◆	◆	◇	◇	◆	◆
Temporary absence	2000	◆	◆	◆	◆	◆	◆	◇	◆	◆
	2010	◆	◆	◆	◆	◆	◆	◇	◆	◆
- reason of absence	2000	◇	◆	◆	◇	◆	◆	◇	◇	◇
	2010	◆	◆	◆	◇	◆	◆	◇	◆	◇
- duration of absence	2000	◆	◆	◆	◇	◆	◆	◇	◇	◇
	2010	◆	◆	◆	◇	◆	◆	◇	◆	◇
Was the previous place of residence in this country?	2000	◇	◆	◆	◇	◆	◆	◇	◇	◆
	2010	◆	◆	◆	◆	◆	◆	◇	◇	◆
If yes:										
- define the country of origin from where you have come for permanent residence in this country	2000	◇	◆	◆	◇	◆	◆	◆	◆	◆
	2010	◆	◆	◆	◆	◆	◆	◆	◆	◆
- purpose of coming to this country for permanent residence	2000	◇	◆	◇	◇	◇	◇	◇	◇	◇
	2010	◆	◆	◆	◇	◆	◇	◇	◇	◇

⁹ ◆ - Question is specified in the questionnaire.

◇ - Question is not specified in the questionnaire.

<i>Questions of a census programme</i> ¹⁾	<i>Round</i>	<i>Azerbaijan</i>	<i>Armenia</i>	<i>Belarus</i>	<i>Kazakhstan</i>	<i>Kyrgyzstan</i>	<i>Moldova</i>	<i>Russia</i>	<i>Tajikistan</i>	<i>Ukraine</i>
Return to previous place of residence	2000	◇	◇	◇	◇	◇	◇	◇	◇	◇
	2010	◆	◆	◆	◇	◇	◇	◇	◇	◇
Refugee or a forced migrant	2000	◆	◆	◇	◆	◆	◇	◇	◇	◆
	2010	◆	◇	◆	◇	◇	◇	◇	◇	◇
Name the region, city or country where you lived earlier (before the day of census)	2000	◇	◆	◇	◇	◇	◇	◆	◆	◆
	2010	◆	◆	◆	◆	◇	◇	◆	◆	◆
- one year ago	2000	◇	◇	◇	◇	◇	◇	◇	◇	◆
	2010	◆	◇	◇	◆	◇	◇	◆	◆	◆
- more than 1 year ago	2000	◇	◇	◇	◇	◇	◇	◆	◆	◆
	2010	◇	◇	◆	◇	◇	◇	◇	◇	◆
<i>Profile of persons, temporarily residing in a country</i>										
Address of the place of residence	2000	◆	◇	◆	◆	◆	◆	◇	◇	◇
	2010	◆	◇	◆	◆	◆	◆	◇	◇	◇
Full name	2000	◆	◆	◆	◆	◆	◆	◇	◇	◇
	2010	◆	◆	◆	◆	◆	◆	◇	◆	◇
Sex	2000	◆	◆	◆	◆	◆	◆	◆	◆	◆
	2010	◆	◆	◆	◆	◆	◆	◆	◆	◆
Date of birth	2000	◆	◆	◆	◆	◆	◆	◆ ²⁾	◇	◆
	2010	◆	◆	◆	◆	◆	◆	◆ ²⁾	◆	◆
Country of birth	2000	◆	◆	◆	◆	◆	◆	◆	◇	◆
	2010	◆	◆	◆	◆	◆	◆	◆ ³⁾	◆	◆
Citizenship	2000	◆	◆	◆	◆	◆	◆	◆	◆	◆
	2010	◆	◆	◆	◆	◆	◆	◆ ³⁾	◆	◆
Country of usual residence	2000	◆	◆	◆	◆	◆	◆	◆	◇	◇
	2010	◆	◆	◆	◆	◆	◆	◆	◇	◇
Ethnicity	2000	◆	◆	◆	◆	◆	◆	◆	◇	◆
	2010	◆	◆	◇	◆	◆	◆	◇	◆	◆
Date of entry to the country	2000	◇	◇	◇	◆	◇	◇	◇	◇	◇
	2010	◆	◇	◇	◆	◇	◇	◇	◇	◇
Purpose of entry	2000	◇	◆	◆	◆	◇	◆	◆	◇	◇
	2010	◆	◆	◆	◆	◆	◆	◆	◇	◇
Refugee status	2000	◇	◆	◇	◇	◆	◇	◇	◇	◇
	2010	◆	◇	◇	◆	◇	◇	◇	◇	◇
For those who entered with an educational purpose or to work, the planned duration of stay	2000	◇	◇	◇	◇	◇	◇	◇	◇	◇
	2010	◇	◇	◇	◆	◇	◆	◇	◇	◇

¹⁾ The wording of the questions may differ from country to country but their meaning remains identical.

²⁾ Year of birth.

³⁾ For those who entered with a purpose of education or work.

⁴⁾ In the census of 2001 in the Ukraine the question was asked to know if a person was a deportee.

*Note*¹⁰: As of 1 January 2011, the censuses of 2010 round have been conducted in six countries of the Commonwealth. In 2009 the census was conducted in Azerbaijan (April), Belarus (October), Kazakhstan (February), Kyrgyzstan (March). In 2010 the census was held in Russia (October) and in Tajikistan (September). In 2011 the census is planned in Armenia (October), in 2012 – in the Ukraine, in 2013 – in Moldova.

Despite the obvious advantages of censuses — they cover the whole population and thus provide the richest data — they have the severe drawback that the time interval between censuses is usually 10 years. Migration is the most sensitive demographic event covered. Changes in policies or modifications to national and international regulations can result in very quick changes in migration flows size and structure. The census statistics may therefore quickly become obsolete as a reflection of the current situation. Besides, with censuses it is hardly possible to monitor the regular shifts in migration, and census statistics do not provide information on causes and consequences of migration. To make up for these drawbacks, specialists can use sample surveys.

A **sample survey** is a flexible tool for collecting information that cannot be obtained in another way. While other data-collection systems gather data on the basic characteristics of migrants, a survey can provide detailed information.

Sample surveys are normally divided into two types: specialized household surveys devoted to migration issues, and general topic surveys (can be devoted to various topics) with a few migration-related questions. Often the general topic surveys are conducted by national statistical agencies. They could, for example, be an employment survey or a survey of household budgets.

In the EECA area, large-scale surveys are often carried out by international organizations. The U.S. Agency for International Development (USAID) supports the demographic and health survey¹¹ (DHS), and the World Bank supports a survey on living standards issues (Living Standards Monitor Survey - LSMS).

Traditionally, “migration” questions refer to the place of birth, citizenship, previous place of residence, and year of the latest change of place of residence. Sometimes questions are included about the place of residence as of a certain date and about race and ethnic background, as well as some characteristics to identify migrants among the total group of respondents. The collected data are usually sufficient to get a broad idea of the extent and directions of migration, and also for making a portrait of migrants based on their social and demographic characteristics.

¹⁰ Source: Interstate Statistical Committee of the CIS. Methodological provisions on analyzing the data of population census and vital statistics, and also on the use of census data and vital statistics during intracensal interval. Statistical bulletin “Statistics of the CIS”, Issue 24, 2010.

¹¹ In Russian it could be called “demographic and medical survey”.

Special surveys are made to investigate population groups directly or indirectly related to migration—foreigners, foreign-born, foreign origin or their household members. To understand the peculiarities of a population with a migration background it can be useful to interview those who are not migrants themselves. Through such surveys, one can collect information on migrants' origin, their social and demographic characteristics, as well as on the reasons for and results of migration.

Issues of migrants' integration and relations with the receiving society, their economic behaviour — consumption, remittances, savings, and investments — are often studied by means of sample surveys. Experts recommend conducting surveys both in migrants' sending and receiving countries and interview members of migrants' households in the country of origin. In this case the answers of the respondents to similar questions can be compared and the results will be more objective (Billsborrow R., Groenewold G. 2004; Billsborrow 2007).

SECTION 5. MIGRANTS LOCATED IN FOREIGN COUNTRIES

According to the results of the survey, more than the two thirds of the household members involved in foreign migration processes are represented by the migrants located in foreign countries (see Table 39). 78.5% of the migrants located in foreign countries are men, and 22% are women.

The prevailing majority (91.3%) of the household members located in foreign countries are the people aged from 15 to 59. Among men, the proportion of that age group is 93.9%, and among women – 83.3%. The average age of the male migrants located in foreign countries is 36.0 years, the average age of the female migrants is 23.0 years, and that of the total migrant population residing in foreign countries is 34.8 years.

Table 61. Representation of the age structure of the migrants residing in foreign countries by gender (%)

	Men			Women			Total		
	% from the total	% from the given age group	% from the total	% from the total	% from the given age group	% from the total	% from the given age group	% from the total	
0-4	1.7	57.1	4.7	42.9	2.4	100.0			
5-8	2.6	75.0	3.1	25.0	2.7	100.0			
10-14	4.7	33.3	2.7	66.7	3.5	100.0			
15-19	5.0	36.7	3.3	23.3	3.1	100.0			
20-24	11.7	71.1	17.1	28.9	12.9	100.0			
25-29	14.9	30.2	13.4	18.8	14.6	100.0			
30-34	19.4	71.6	15.8	28.4	11.4	100.0			
35-39	9.1	86.8	7.8	19.2	8.8	100.0			
40-44	11.2	82.8	8.1	17.2	10.7	100.0			
45-49	18.0	87.1	8.6	12.9	14.4	100.0			
50-54	13.4	88.8	6.7	10.3	10.0	100.0			
55-59	4.1	87.0	2.4	13.6	3.5	100.0			
60-64	0.4	88.0	2.4	49.0	0.8	100.0			
65-69	0.4	100.0	0.2	0.0	0.1	100.0			
70+	0.2	22.2	1.8	45.7	0.5	100.0			
Total	100.0	78.5	100.0	21.5	100.0	100.0			
Average age	34.8		31.0		34.8				

The distribution of the education level of the migrants located in foreign countries has the following representation:

Table 62. Representation of the education level of the migrants in foreign countries, by gender (%)

Level of education	Men	Women	Total
No elementary education	0.2	0.0	0.2
Elementary education	0.7	5.2	1.4

In the EECA region, only a few countries actively use special and general household surveys as a migration information source — Armenia, Kyrgyzstan, the Republic of Moldova and Tajikistan. Other countries do not even use existing regular surveys.

Good practice: Armenia successfully uses various sample surveys to study migration, including the surveys supported by international organizations. Questions on internal and international migration focus on the geographical and economic characteristics of migrants¹².

Bulgaria conducted a specialized survey on family patterns and migration with two samples. The results were used to estimate migrant population stock and economic status of the

respondents (Migration and Family Patterns. National Survey, 2007). Lithuania successfully measured undeclared emigration using a household survey (Ambrozaitene D., 2008).

Sample surveys are widely used to study perhaps the most important migration topic — remittances. The International Monetary Fund supported the survey of migration and

¹² Figure: Report on Sample Survey in External and Internal Migration in RA. Yerevan 2008; see also Johnson, Kiersten. 2007. Migration, Economy and Policy: Recent Changes in Armenia's Demographic And Health Indicators: Further Analysis of Data from the Armenia Demographic and Health Surveys. DHS Trend Report No. 3. Calverton, Maryland, USA: Macro International Inc.

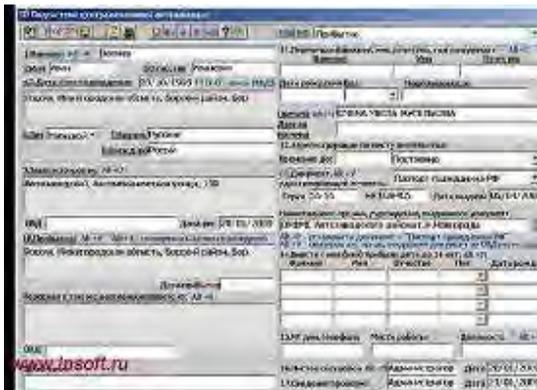
remittances in the Republic of Moldova. The survey allowed interesting information to be collected on the motives of migration, migrants' earnings, and contribution to income of the family left in the country of origin (Migration and Remittances in Moldova, 2005)

In some countries, such as the Australia, Ireland, the United Kingdom and the United States, sample surveys are a significant source of migrant population data. The United States has its own industry for sampling which is characterized by top quality organization of work, large samples and detailed questionnaires which nearly always include questions on place of birth, citizenship (and often – on ways of obtaining citizenship), previous place of residence, year of arrival in the United States, and sometimes questions on race, language and other “migration” characteristics. Thanks to this careful approach to sample surveys, the US Census Bureau was able to simplify the census questionnaire, leaving only seven questions to be answered.

We should give special consideration to sampling design when conducting a special survey and analysing the results. The reason is that the share of migrants, particularly recent migrants, in the population is small, and migrants tend to settle in certain parts of a country or region. When it is impossible to get a sampling frame suitable for the objectives of a survey the researchers only collect the information that can be provided by the available respondents. In this case, the researchers may not have an idea of the total size of the population. Because of this the experts often consider the results doubtful, as the representativeness of the sampling is unknown (McKenzie, 2007).

Disproportionate rates of non-response among immigrants — e.g. because of language difficulties or problems of legal status — may also contribute to undermining the quality of the results from surveys unless special measures are taken. One could, for instance, increase the sizes of the samples in areas where migrants are expected to live, or using a “snowball” approach and other methods developed for “hidden” populations.

5.2 Administrative sources



Administrative sources of migration statistics include population registers and administrative records dealing with the registration of a place of residence or stay. Very often these are related to the issuing of identity documents and passports, and involve assigning a personal identification number.

Population registers are often considered to be the best source of statistics on the size of migrant flows and stocks. Their main

advantage is having a record for every person, which links them to an address and an administrative area. The reporting and recording of a change of place of residence leads to a corresponding change in the register, if it is continuously updated.

With such data, statisticians can count how many people have moved to and from another place of residence within the country during a certain period, and how many migrants — for example, foreigners — are residing in the country at any given time.

Table 11. Part of a table created using the data of the Central Population Register of Norway, comprising the information on migrants stocks by place of birth and parents' country of origin (as of January, 1, 2010)

	Immigrants and Norwegian-born to immigrant parents			Other population with migration background	
	Total	Immigrants	Norwegian-born to immigrant parents	Total	Including Norwegian-born with one immigrant parent
Total	552 313	459 346	92 967	274 081	206 627
Europe	257 037	234 464	22 573	166 887	135 241
Lithuania	10 341	9 838	503	498	466
Kosovo	12 719	9 417	3 302	795	786
United Kingdom	12 843	12 140	703	22 475	17 816
Russian Federation	14 873	13 470	1 403	2 657	2 302
Bosnia and Herzegovina	15 918	13 103	2 815	878	872
Denmark	19 298	17 774	1 524	33 711	28 936
Germany	22 859	21 341	1 518	16 145	12 913
Sweden	31 193	29 763	1 430	43 781	32 149
Poland	52 125	49 309	2 816	4 511	4 228
Ukraine	2 604	2 440	164	509	484

Source: website of Central Statistical Bureau of Norway, http://www.ssb.no/innvbef_en/tab-2010-04-29-04-en.html

Table 11 illustrates that as of 1 January 2010, there were 14,873 permanent immigrants of Russian origin residing in Norway; 13,470 of whom are first-generation migrants, and 1,403 are children born to immigrant parents. And 2,302 children born in Norway have a parent of Russian origin.

Depending on the precise legal definition for registering a change of address, such registers provide information about the number of migrants who've stayed in a certain place for over 12

months, i.e. those who meet the criteria recommended by the UN for counting long-term migrants. Registers contain a wide range of information about individuals, which is sufficient for studying migrant flows and stocks, demographic characteristics of migrants, their socio-economic status, migration reasons and destinations.

A certain threshold of stay — for example, 3 or 6 months — is necessary to record a person in a new place of residence and to record migration events. The threshold is set by national regulations. Different rules may exist for nationals and foreigners to be counted as emigrants or immigrants. A migrant's profile can be added to the country's register only after he or she has been included in the resident population. All newborns are registered in the system at once. The profiles of long-term migrants and newborn residents contain data on their parents, thus allowing one to see that a person is a descendant of a migrant. When they change their status or move to reside in another place, the profiles are updated

Individual data collected in the register are usually transmitted by the agency responsible for managing the register to the national statistical office in order to produce demographic statistics in general, and migration statistics in particular. After transferring the “base” data, the register agency may also regularly (for example, monthly) provide the national statistical office with information on updates of individual profiles.

Most CIS countries, except Armenia and the Republic of Moldova, still don't have population registers. Data on migration, both internal and international, are collected from civil registration systems, which record information of an individual in her/his place of residence or stay. These systems usually operate under the Ministry of Internal Affairs or Ministry of Justice (in Kazakhstan) and most of the countries collect migration data using paper forms.

Arrival registration card (form) issued to record a migrant in a new place of residence (Russian Federation)

Приложение № 12 Форма № 12П	
«П» ЛИСТОК СТАТИСТИЧЕСКОГО УЧЕТА ПРИБЫТИЯ (к документам о регистрации по новому месту жительства или по месту пребывания)	
Записи в листке статистического учета прибытия подлежат использованию только для получения сводных данных о численности и составе мигрантов и относятся к категории конфиденциальной информации	
Регистрация: по месту нового жительства в том числе в связи с изменением гражданства по месту пребывания на срок	
с « » (число) (месяц) (год) по « » (число) (месяц) (год)	
1. Фамилия	
2. Имя	
3. Отчество	
4. Дата рождения	« » (число) (месяц) (год)
5. Место рождения	государство _____ республика, край, область, округ _____ район, городской район (округ) _____ город, поселок городского типа _____ сельский населенный пункт _____
6. Пол (подчеркнуть): мужской — 1; женский — 2	
7. Гражданство (указать государство)	
если имеет двойное гражданство, указать предыдущее гражданство (государство) _____	
если изменено гражданство, указать предыдущее гражданство (государство) _____	
8. Новое место жительства	республика, край, область, округ _____ район, городской район (округ) _____ город, поселок городского типа _____ сельский населенный пункт _____
9. Последнее место жительства	государство _____ республика, край, область, округ _____ район, городской район (округ) _____ город, поселок городского типа _____ сельский населенный пункт _____
10. Проживал по последнему месту жительства с _____ года	
Форма № 12П (оборотная сторона)	
12. Занятие по последнему месту жительства (подчеркнуть)	До переселения осуществлял трудовую деятельность: сельское хозяйство, охота и лесное хозяйство — 01; рыболовство, рыбоводство — 05; добыча полезных ископаемых — 10; обрабатывающие производства — 15; производство и распределение электроэнергии, газа и воды — 40; строительство — 45; оптовая и розничная торговля, ремонт автотранспортных средств, мотоциклов, бытовых изделий и предметов личного пользования — 50; гостиницы и рестораны — 55; транспорт и связь — 60; финансовая деятельность — 65; операции с недвижимым имуществом, аренда и предоставление услуг — 70; государственное управление и обеспечение военной безопасности, обязательное социальное обеспечение — 75; образование — 80; здравоохранение и предоставление социальных услуг — 85; предоставление прочих коммунальных, социальных и персональных услуг — 90; предоставление услуг по ведению домашнего хозяйства — 95; деятельность экстерриториальных организаций — 99; учился — 03, в том числе в ВУЗе — 04. Не работал — 09
13. Статус в занятости (подчеркнуть)	работа по найму в качестве: руководителя — 1; специалиста — 2; иного служащего (технического исполнителя) — 3; рабочего — 4; самостоятельно обеспечивал себя работой — 5
14. Вид социального обеспечения по последнему месту жительства (подчеркнуть)	получал: пенсию по старости — 1; по инвалидности — 2; за выслугу лет — 4; пособие по безработице — 12; иные пенсии и пособия — 7
15. Образование (подчеркнуть)	высшее — 1, в т.ч. имеет ученую степень: доктора наук — 2, кандидата наук — 3; неполное высшее профессиональное — 4; среднее профессиональное (среднее специальное) — 5; начальное профессиональное — 6; среднее общее (полное) — 7; основное общее (неполное среднее) — 8; начальное общее (начальное) и не имеющее начального — 9
16. Состояние в браке (подчеркнуть)	женат (замужем) — 1; никогда не был женат (замужем) — 2; разведен(а) — 3; вдовец (вдова) — 4
17. Если до переселения проживал с семьей, то прибыл (подчеркнуть): со всей семьей — 1; с частью членов семьи — 2; один (одна) — 3; проживал(а) без семьи — 4	
18. Часть членов семьи уже проживает по новому месту жительства: да — 1; нет — 2	
Сведения проверил и регистрацию оформил	
(фамилия и должность ответственного за регистрацию)	
« » (число) (месяц) (год) г. (Подпись)	
Размер 150 x 280 мм	

Despite advances in information technology, a large amount of manual work still has to be done when the data from paper forms (slips, cards) are entered into an electronic database. Sometimes paper registers and logs are used. To be recorded as a migrant, a person only needs to be legally registered at the place of residence, often regardless of the proposed or actual duration of stay.

Until the break-up of the Soviet Union, the above-mentioned system supplied relatively good quality data nonetheless. Nowadays, the growing diversity of migration processes is creating a demand for a different set of data, which requires more effort to be put into their processing and distribution as well as collection technology. In this regard, the population registers seem to be the most convenient mechanism for compiling statistics about population in general, and about migration in particular.

It is important, however, to have a good understanding of both the rules for registration and of the incentives and disincentives that individuals have for registering or not registering changes to their situation. These, as well as the procedures used in the agencies in charge, will largely determine the relevance and quality of the resulting statistics.

ЦЕНТР ГОСУДАРСТВЕННЫХ ИНФОРМАЦИОННЫХ РЕСУРСОВ «REGISTRU»

Государственный Регистр Населения

Статистические данные из Государственного регистра населения в разрезе гражданства лиц, проживающих в РМ по состоянию на 1 июня 2010

Гражданство	Количество
REPUBLICA MOLDOVA	3834555
FEDERATIA RUSĂ	5401
UCRAINA	4772
ROMANIA	337
TURCIA	267
BELARUS	202
ISRAEL	164
REPUBLICA ARABĂ SIRIANĂ	162
AZERBAIDJAN	142
Посольство К. В. И. Е. С. М. Д. Р. А. С. Т. А. Н. И. Я.	141

Источник: <http://www.registru.md/stat3.ru/>

In the Republic of Moldova, the Ministry of Information Technologies and Communication is in charge of the population register, and started producing statistics on internal and international migration a few years ago. It transmits the data on stocks and flows to the National Bureau for Statistics in the form of reports with aggregated indicators. The Ministry's website also provides up-to-date information about international migrant stocks (foreigners), residing in the country.

Other administrative systems connected to processing migrants' applications.

Administrative procedures are in place for handling many types of applications from potential migrants to a country — e.g. applications for a visa, for residence permits, for work permits, for asylum or refugee status, or for citizenship. The data recorded may be used to produce statistics related to these specific categories of migrants, and these statistics may overlap. Information from such systems is diverse and important. As almost all types of applications may have either a positive or negative outcome, these outcomes must also be covered by statistics.

Statistics based on administrative sources allow us to study the different categories of migrants and migration. These sources are often part of the universal system which provides for different administrative services and procedures connected with migration. Such a system may be a register of foreigners that integrates systems for reviewing applications with regard to various issues.

The Russian Federation, for example, has the Central Bank of Data on Foreigners. Norway has a special system for registering and processing data on foreigners and asylum seekers applying for permission to visit or live there (DUF - *Datasystemet for utlendings – og flyktningsaker*).

The administrative systems supplying migrants with documents necessary for a legal stay in a destination country should include statistics on:

- Work permits, reports or notification letters of employers about hiring foreigners
- Issued residence permits and rejected applications
- Penalties for migration law violations
- Granted citizenships
- Applications by asylum seekers and how they are resolved
- Issued and prolonged visas
- Results of regularization campaigns targeted at undocumented migrants, etc.

It is clear that the task of administrative statistics is to specify the number and the volume of the conducted procedures — including the cases when a few procedures are related to the same person — for effective management of the regulatory agencies and for evaluating the policies for regulating immigration. This is what makes such statistics different from national migration statistics, which are aimed at counting migration events and persons experiencing these events.

Data relevant for statistics on migration can be found within any set of administrative information on population. Countries that don't have population registers should benefit from this.

All databases or primary information sources containing data on the place of birth and/or citizenship can serve to produce migration statistics. For instance, civil records registering births, deaths, marriages and divorces often have information about the place of birth of a person, his/her current place of residence and citizenship. Ideally, when recording births, the data on both parents should be collected.

The analysis of this information can help to find out in what way internal and international migrants influence the demographic processes in the region. Aggregated or anonymized data from such sources can contribute much to traditional migration statistics collected in the countries of Eastern Europe and Central Asia. Databases of the tax service, the social or medical insurance systems are not being used, although they contain information on the place of birth of individuals and specify changes to his/her place of residence.

Problems with data quality are encountered even by countries that are regarded as a model from the perspective of statistics based on administrative sources. Experts point out that officers sometimes tend to skip recording information that's not compulsory for the purposes of application processing and decision-making (Hoffman E. 2006). These deficiencies can

only be overcome if statisticians take a persistent and comprehensive position on the issue, explaining the need for the statistics, and providing instructions and training.

5.3 Data collected at the borders

Three types of data collection can be identified in this group:

- First, electronically collected border-control data. These provide general information on entries to and exits from the country, with passengers (or people crossing the border) distributed by citizenship, purpose of the trip and means of transport. Border-control data is one of the principal sources of information about irregular migration, especially about people detained at the border for carrying false or invalid documents or for not having the required documents. Records of apprehensions of undocumented persons and persons with forged documents is one of the main sources of information on illegal migration, even if they often more reflect levels and variations in border-control efforts than the level and variations in irregular migration. In many countries, the same agency is responsible for border and customs control.
- The second type of data is collected by means of special cards that passengers fill in when entering or exiting the country. As a rule, these cards include a limited number of questions. The use of these cards also varies from country to country; in some places they are obligatory only for foreigners, whereas in other places they are for all the passengers or only for nationals, such as when the out-migration is massive and poorly registered by other systems.
- The third type of data is based on special passengers' surveys conducted at the entry/exit ports of a country. These systems operate better in the island states or in the countries with a few well-controlled entry/exit ports (or ports that cannot be avoided, for example in the mountains).

Frontier systems of data collection can be the responsibility of different governmental bodies or non-governmental organizations: customs, immigration or passport-control services. There are some limitations in data reliability and completeness because *entries* are often counted more completely than *exits*. Moreover, movements of people between a group of countries bound by some special agreements, e.g. the member countries of the European Union and the EFTA-countries, cannot be determined at all unless they cross "external" borders.

Many ports at the external borders of a state are equipped with electronic passenger-flow control systems. However, *passport-control statistics* usually deal with events rather than physical persons because the same person may cross the national border of a country several times a year. Data collected at passport control are generally published in an aggregated form and split into several variables (see above). Only some countries provide public access to statistics on border crossing from the agency responsible for such controls (e.g. Armenia); in

In the United Kingdom, the International Passenger Survey is one of the main sources of long-term migration statistics. Its primary aim is to evaluate the economic behaviour of people coming to and leaving the country.

The questionnaire has a number of “migration” questions concerning citizenship, purpose of trip, plans for staying (for those who are leaving — plans for absence) in the United Kingdom for 12 months and longer. That’s why the collected data is so valuable. Different questionnaires are used for passengers travelling by different types of transport.

The International Passenger Survey also has some drawbacks, however. For instance, it covers the majority but not all border control ports (e.g. not those with Ireland). Other special sample surveys conducted in the United Kingdom (e.g. the labour force survey) also include questions on migration. The data collected through different surveys are later compared.

6. Collecting data on special categories of migrants

To get a true picture of migration, a country would normally need different sources of information. Statistics required for policy decision-making should be a priority as they are the sources for data on groups of migrants and certain types of migration that are regarded as important.

To manage labour migration, one needs to know the number of work permits issued, the number of migrants employed, and the migrant stock structure by profession and qualification. Besides this, policymakers should also be aware of demand and supply on the local and regional labour markets, and related information.

To raise and distribute funds allocated for forced migrants, accurate information on their number, age and family structure is required. In many countries, as irregular migration is the primary concern of migration policy, much attention is paid to the estimation of its numbers.

6.1 Labour migration

Short-term and temporary labour migration is the main subject of migration statistics in both countries of destination and countries of origin. Labour migration is not easy to count due to the variety of its forms and quick change of migrants' status.

United Nations recommendations issued in 1998 identify labour migrants as “foreigners admitted by the receiving state for a specific purpose of exercising economic activity remunerated from within the receiving country. The length of stay is usually restricted, as is the type of employment they can hold. Their dependants, if admitted, are also included in this category”.

This definition is not always used, however. Stocks and flows of migrant workers are not homogeneous, as there are a range of programmes allowing migrant labour (which differ by type of work and its duration), for example, frontier migration, seasonal migration, working holidaymakers, intra-company transferees, provision of services, and self-employment. In addition, if labour migrants are nationals of countries within the same economic or political union they are not covered by migration statistics that are based on permits. Only third-country nationals are included in the statistics.

In many countries, job-visa or work-permit holders can bring their families as so-called dependants, who are often also included in labour migration statistics, even if they do not have work permits. Therefore, the users of migration statistics should know who is actually covered by the migrant worker statistics.

The concepts of *stocks* and *flows* can be applied to labour migration just as to other types of long- and short-term migration. Experts have identified the need for the following statistics:

Table 12. Main types of labour migration statistics

Flows (for a certain period of time)	Stocks (at a certain moment of time)
<ul style="list-style-type: none">- Foreigners who arrived to work in a destination country (“labour immigration”)- Nationals who left to work abroad (“labour emigration”)- Nationals who returned to the country of usual residence after having worked abroad (return flow of labour migrants)	<ul style="list-style-type: none">- Stock of foreign workers in destination country- Stock of nationals working abroad

Source: Hoffmann and Lawrence, 1995

Data on *flows* are generally available even in those countries, which mostly send rather than receive migrants. This type of statistics is based on work permits issued in the receiving country and employers’ reports of hiring migrants.

When working with these statistics we should remember that they may involve double counting if the same person can get two work permits or can be hired by two employers, usually at different times during the same reference period. A system of data collection similar to a population register would be helpful here, as it would then be possible to define the exact number of persons for all issued permits.

Statistics on people who left the country to work abroad are rarer and often of poor quality. Migrant-sending countries, nevertheless, have an urgent demand for proper labour migration statistics. Unfortunately, only an insignificant number of migrants sign and register labour contracts in the country of origin before going abroad, which is why the statistics only partially cover the migrant flow.

The overwhelming majority of migrants who go to work abroad find jobs themselves in the country of destination. Besides underestimation of emigrant numbers, the statistics based on labour contracts runs the risk of misrepresenting migrant out-flow structure, so that it would be wrong to use it to estimate the out-migration flow.

For example, in the Russian Federation where the brain drain is a pressing issue, but the official statistics on out-flow of labour migrants show that in 2008 around 80 per cent of

Russian nationals – leaving the country with assistance of licensed recruitment agencies – were employed on ships under foreign flag, while eighteen per cent were students working during their holidays. As for the sailors, it would be logical to count this category of workers separately because they are not physically present on the territory of the country of destination¹⁶ (Hoffmann, Lawrence 1995).

Yet in some countries, for example, in the Philippines, contract-based statistics are very effective. They provide reliable data on out-flows of migrants who left to work abroad. In Eastern Europe and Central Asia, this type of statistics cannot be used because the countries don't have an island-based geographical position. Nor do they have institutions that could control labour emigration effectively and provide support to their nationals working abroad.

The statistics provided by the main receiving countries may partially compensate for the statistical downsides. However, normally only regular types of migration are covered by those statistics. When placing survey data from a sending country against official statistics on labour migration from a receiving country, we can see a correlation between actual and regular labour migration, which is important in terms of administrative decision-making.

Stocks of foreign labour force in a country are usually measured as the number of migrants residing in the country at a certain moment with a valid work permit. However, having a work permit does not guarantee employment. It's therefore better to have data on the number of foreigners working in a country of destination at a certain moment.

For example, the Russian Federation collects and publishes such data as of the beginning and the end of the year. However, this isn't enough because labour migration is vulnerable to seasonal fluctuations as well as to business-cycle fluctuations.

To estimate the number of nationals of a country working abroad, we can use not only statistics of destination countries but also the results of censuses and sample surveys, as indicated above. For instance, the census in the Republic of Moldova in 2004 showed that 273,000 nationals were abroad and 242,000 of these were working abroad at the moment of the census. The latter figure should be interpreted as the stock of labour migrants residing abroad. Therefore, in the census, the real size of the population was underestimated due to the absence of all the members of the families, and hence no one present to take part in the census. On the whole, surveys of households of labour migrants in the countries of origin are considered a “gold standard” for collecting data on absent population.

Another potential source of information for producing estimates on emigration is migration cards (see the paragraph on the data collected at the border). The list of purposes of the trip includes the option, “employment”. If the combined information about the expected duration of the absence and the data obtained from these cards is properly processed, a country could get a general idea both of labour migrant out-flows and labour migrants returning home.

¹⁶ Formally it is the country, in which a homeport is located.

A good example is Tajikistan, where remittances account for up to 35% of the country's GDP (as of 2009). Thanks to the system of migration cards put in place several years ago, approximate estimations of out-flows migration could be made. According to these estimates, more than 600,000 nationals leave the country every year to work abroad.

In previous years much attention has been paid to the phenomenon of circular migration, i.e. such forms of labour migration when a migrant fairly frequently returns to the country of origin in order to leave it later again to work abroad (for types of circular migration see: Agunias D., Newland K., 2006). Counting this type of movement is very important for migration policymaking. So far, however, such information is likely to be collected only by means of sample surveys.

Theoretically, implementation of well-organized (preferably electronic) labour migrant registration systems (in destination countries) would allow specialists to find out how many migrants return to the destination country for the purpose of work, how often they return and at what intervals.

6.2 Forced migration

In many countries of the Eastern European and Central Asian region, forced migration was unfortunately the first type of international migration to be recorded. In the beginning of the 1990s, hundreds of thousands of people left their home countries because of the interethnic conflicts in former Soviet republics. Similar processes took place within the republics as none of them were monoethnic. This generated flows and stocks of refugees and internally displaced people. The demand for regulating both types of flows was accompanied by the creation of corresponding systems for counting these migrants.

Sometimes the users of statistics fail to see the difference between voluntary and forced migration. Indeed, sometimes the difference may be blurred. However, to interpret the statistics correctly, we need to know the difference. According to the international approach, a refugee is a person who is not a citizen of the destination country and "owing to a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group, or political opinion, is outside the country of his nationality, and is unable to or, owing to such fear, is unwilling to avail himself of the protection of that country...". (Article 1, The 1951 Convention Relating to the Status of Refugees).

The Office of the United Nations High Commissioner for Refugees (UNHCR) emphasizes the following:

- the most important part of the refugee definition is that refugees have to be outside their country of origin.
- the reason for their flight has to be a fear of persecution.

- the fear of persecution has to be well-founded.
- the persecution has to result from one or more of the five grounds listed in the definition: race, religion, nationality (citizenship), membership of a particular social group, or political opinion.
- the refugees have to be unwilling or unable to seek the protection of their country.¹⁷

From the moment of submission of an application for refugee status until decision-making, the person is treated as an asylum seeker.

Forced migration statistics should cover all the stages of a refugee's stay on the territory of the receiving country, starting with the moment of submission of the application. The statistics should present the number of submitted applications, and the number of decisions regarding them, including rejections, with distribution of the applicants by country of origin and, possibly, by purposes of seeking refugee status as well as demographic characteristics.

As soon as the situation in the country of origin improves, the refugees can return home. The flows and stocks of these migrants are subject to statistical recording, yet the statistics on them are rarely available.

Internally displaced persons are people who have been forced to leave their homes and move within their country for the same reasons as a refugee. Additional reasons for moving are climate and ecological disasters. These persons never cross the national border of their country and are usually citizens of this country¹⁸.

¹⁷ Source: <http://www.unhcr.org.au/basicdef.shtml>

¹⁸ Foreigners can also become IDPs if they have permanently resided in the given territory and were forced to move due to the reasons indicated.

Table 13. Extract of a statistical report on forced migrants (UNHCR, 2010)

Table 1. Refugees, asylum-seekers, internally displaced persons (IDPs), returnees (refugees and IDPs), stateless persons, and others of concern to UNHCR by country/territory of asylum, end-2009

Country/territory of asylum ¹	REFUGEES					Returned refugees ⁵	IDPs protected/assisted by UNHCR, incl. people in IDP-like situations ⁶	Returned IDPs ⁷	Stateless persons ⁸	Various ⁹	Total population of concern
	Refugees ²	People in refugee-like situations ³	Total refugees and people in refugee-like situations	Of whom assisted by UNHCR	Asylum-seekers (pending cases) ⁴						
Afghanistan	37	-	37	37	12	57'582	297'129	7'225	-	-	361'985
Albania	70	-	70	70	20	-	-	-	-	-	90
Algeria ¹⁰	94'137	-	94'137	90'132	153	1	-	-	-	-	94'291
Angola	14'734	-	14'734	4'824	4'241	2'449	-	-	-	14'479	35'903
Argentina	3'230	-	3'230	328	750	-	-	-	-	-	3'980
Armenia	3'607	-	3'607	3'280	39	-	-	-	-	82'231	85'877
Australia	22'548	-	22'548	-	2'350	-	-	-	-	-	24'898
Austria	38'906	-	38'906	-	32'146	-	-	-	523	-	71'575
Azerbaijan	1'642	-	1'642	1'642	46	1	586'013	-	2'078	510	590'290
Bahrain	139	-	139	139	12	-	-	-	-	-	151
Bangladesh	28'586	200'000	228'586	28'342	-	-	-	-	-	-	228'586
Belarus	580	-	580	232	90	-	-	-	7'799	-	8'469
Belgium	15'545	-	15'545	-	18'233	-	-	-	637	-	34'415
Belize	230	-	230	53	21	-	-	-	-	-	251

Source: UNHCR Statistical Yearbook 2010

Statistics on forced migration are generally prepared in accordance with the standards set by the UNHCR. The categories of persons are those satisfying the United Nations criteria and the legal regulations of the given country. Each country has an authorized body for handling forced migration issues which is responsible for recording the refugees and producing the corresponding statistics.

The statistics can present the flows (the numbers of applications submitted and decisions taken within a period of time) and stocks (the number of people with asylum seeker status or IDP status residing in the country, and also people who are waiting for decisions on their applications as of a certain date). Similar information can be obtained from other sources. Population registers and foreigners' registers, as well as administrative statistics on the number of issued residence permits may contain indications of forced migrant status if the basis for the residence permit is registered.

Obtaining basic information for statistics on those who apply for asylum is not a problem, since asylum seekers have a personal interest in being registered. The authorized agencies in the majority of countries process the accumulated information and regularly publish statistics in annual statistical yearbooks.

Some countries with national population registers have a separate register for refugees. Unless they have been granted a residence permit, these people are not included in the resident population no matter how long they have been residing in a receiving country. Often a state's policy related to asylum seekers is stern and few applicants are granted refugee status. In this case, UNHCR employs indirect estimates using alternative data sources (including data produced by human rights organizations).

UNHCR's system of constant monitoring of forced migration data covers 44 countries (developed countries). Regular reports are published on their website. Other countries also supply the UNHCR with the data that they have. The information is thus accumulated and then processed.

Sometimes the statistics on forced migration also include information about the numbers of stateless persons. Persons in this category may not be directly connected with forced migration, but are subject to protection under the United Nations Convention on Human Rights. Stateless persons are considered more vulnerable economically and socially than other migrants. The UNHCR *Statistical Yearbook* also contains statistics on the numbers of such people. We need to be aware, however, that the estimates of both stocks and flows of such persons are not standardized and are mostly poorly documented. They therefore need to be used with great caution.

In the 1940s, the Soviet Union carried out forced resettlement (deportation) of people of certain nationalities, relocating them from their places of traditional residence to other regions and republics. In late 1980s the process of their return was initiated. When the number of such persons is high and certain measures are required from governments in receiving them, it is evident that a system of statistical record is needed specifically for this category of migrants¹⁹.

In recent years, environmental migration has become a topical issue. It is generally associated with natural disasters and climate change. The growth of forced migration, related to these causes is forcing international organizations to review the criteria for defining refugees. It is therefore absolutely clear that we need to establish a system for recording environmental migrants (long-term, temporary, etc.) and set up a new model of reporting on a regular basis.

6.3 Measuring emigration

Emigration statistics always underestimate the number of people who have left their countries. Many emigrants don't declare their departure to the authorities of their country. And most countries have no mechanism *or working mechanism* for encouraging or obliging migrants to declare their departure. If the migrants don't see an obvious benefit in de-registration or if the country of destination doesn't require any evidence of de-registration from the country of origin (or registering his or her departure), the migrants won't waste their time on this procedure, especially if it could involve the loss of certain rights. Local authorities often are not interested in accurate measurement of emigrants because the local budget benefits from a more numerous population.

¹⁹ In Ukraine, for example, a cumulative register of repatriates and their family members was created to record the Crimean Tatar population returning to the Crimea and other parts of the country.

Table 14. Number of people born in Kazakhstan and residing in the United States at the moment of the year 2000 census (fragment of the table FBP-1, Kazakhstan, from US Census Bureau)

Table FBP-1. Profile of Selected Demographic and Social Characteristics: 2000						
Population Universe: People Born in Kazakhstan ¹						
Geographic Area: UNITED STATES						
[For information on confidentiality protection, sampling error, nonsampling error, and definitions, see http://www.census.gov/prod/cen2000/doc/sf3.pdf]						
Subject	Number	Percent	Subject	Number	Percent	
Total population.....	9 155	100,0	SEX AND AGE	9 155	100,0	
U.S. CITIZENSHIP AND PERIOD OF U.S. ENTRY			Total population.....			
Naturalized U.S. citizen.....	1 480	16,2	Male.....	4 155	45,4	
Entered 1990 to 2000.....	1 105	12,1	Female.....	5 000	54,6	
Entered 1980 to 1989.....	155	1,7	Under 5 years.....	395	4,3	
Entered before 1980.....	220	2,4	5 to 9 years.....	670	7,3	
Not a U.S. citizen.....	7 675	83,8	10 to 14 years.....	815	8,9	
Entered 1990 to 2000.....	7 450	81,4	15 to 19 years.....	1 015	11,1	
Entered 1980 to 1989.....	170	1,9	20 to 24 years.....	815	8,9	
Entered before 1980.....	55	0,6	25 to 34 years.....	2 060	22,5	
RACE			35 to 44 years.....	1 825	19,9	
One race.....	8 430	92,1	45 to 54 years.....	735	8,0	
White.....	7 780	85,0	55 to 59 years.....	295	3,2	
Black or African American.....	-	-	60 to 64 years.....	205	2,2	
American Indian and Alaska Native.....	-	-	65 to 74 years.....	210	2,3	
Asian.....	620	6,8	75 to 84 years.....	100	1,1	
Native Hawaiian and Other Pacific Islander.....	-	-	85 years and over.....	15	0,2	
Some other race.....	25	0,3	Median age (years).....	28,7	(X)	
Two or more races.....	725	7,9	18 years and over.....	6 635	72,5	
HISPANIC OR LATINO ORIGIN			Male.....	2 955	32,3	
Hispanic or Latino (of any race).....	4	-				

Source: US Census Bureau, census 2000 data, table FBP-1

International experts recommend that the countries of origin should make wider use of the statistics of the destination countries. Popular destinations of migration are well known, as these are countries with an accurately measured in-flow of migrants. The receiving country may record immigrants according to their country of birth or the country of previous residence. These statistics are usually based on the information from population registers, including statistics of residence permits or systems of registration in the place of stay and residence used in the republics of the former USSR.

If possible it is useful to compare the so-called “mirror statistics”, i.e. the data collected in the destination country and in the country of origin. Such comparison may bring to light contradictions and stimulate the search for the reasons.

As for the emigrant *stock*, there is no precise universally accepted definition. We usually mean a group of people born in a given country or citizens of that country and residing in other countries at a certain moment. The data provided by some consular departments is usually incomplete because not all emigrants wish to be registered on arrival, and may not report their departure.

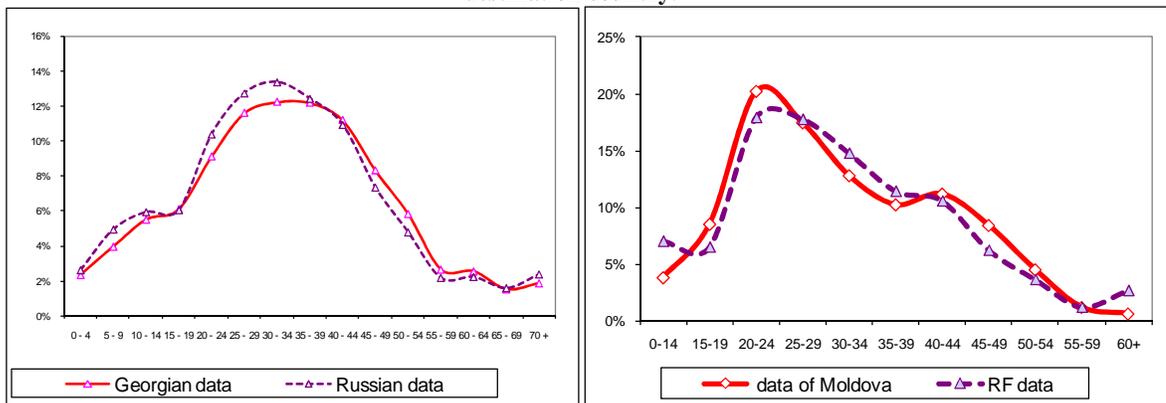
Therefore knowing the main destinations of migration, the best estimates on the stocks of emigrants from a given country (born in this country or citizens of this country) can be made for each of the main destination countries on the basis of their statistics on immigrants. For example, according to the US Census Bureau, 9,155 people born in Kazakhstan were residing in the United States as of the year 2000 census; 1,482 people of that group acquired US

citizenship. What makes this data valuable is the distribution of migrant stock by cohorts—according to the years of arrival. Thus, one can say that 90 per cent of migrants born in Kazakhstan arrived in the United States after 1990 (see Table 13).

Sometimes it's worth using administrative data collected by consulates on citizens residing abroad; data from population registers, censuses and sample surveys. However, consular statistics include only part of population because it's not always compulsory to register.

Estimations of the number of people residing outside their country of birth are available on the website of the UN Population Division. They're based on the information about the place of birth of migrants residing in a destination country.

Figure 6. Age composition of emigrants registered at the censuses of Georgia and the Republic of Moldova through the ‘emigration module’ questions and immigrants counted in the Russian Federation - the main destination country.



Source: Anich R., Bisogno E., Chudinovskikh O., 2008. Data of National Statistical Offices.

In order to have their own sources for estimating the absent population, some countries simply include a special block of questions, the so-called “emigration module” in their programmes of population censuses and surveys. The main weak points of this method are that it's impossible to obtain information when all the family members have emigrated, and (in most cases) the criterion of temporary or long-term absence is too vague.

Comparison of the data obtained by this method with the statistics of the most popular destination countries showed that absolute numbers indicating the emigrant stocks measured by the census in the country of origin do not coincide with the number of immigrants registered in the destination country. But the sex-age structures of the stocks were similar. Inspired by the successful experience of others, some countries of Eastern Europe and Central Asia plan to implement or have already implemented an emigration module in the census rounds of 2010.

6.4 Measuring irregular migration

Fighting irregular migration is the primary concern of migration policy in many countries. However, no exact data on the number of irregular migrants are available. In order to get some idea and try to count the uncountable (Jandl M., Vogel D., Iglicka K., 2008), we should start with definitions of "irregular migrants".

Table 15. Statistics on people detained at the Ukrainian border: distribution by countries of origin of the detained people

Number of irregular migrants apprehended by the Border Guards Service of Ukraine per year by country of origin*			
Country	2005	2006	2007
Total	17941	25782	36612
Moldova	3427	9745	13300
Uzbekistan	1958	2604	5100
Armenia	2179	2346	1800
Azerbaijan	2057	2130	1900
Russia	1452	1118	1500
Georgia	1123	1235	800
China	1191	726	225
Tajikistan	608	1255	3400
India	685	741	298
Turkey	552	712	900
Pakistan	399	522	68
Kyrgyzstan	284	475	1000
Vietnam	448	195	28
Kazakhstan	273	365	297
Bangladesh	225	262	127
Other	1080	1351	5869

Source: <http://soderkoping.org.ua/page21107.html>

Irregular status means that a person has violated the legal regulations of the receiving country concerning the rules of entry, stay or work on its territory. Irregular entry means absence of the required documents, or usage of fake documents. Irregular stay is usually connected with exceeding the allowed period of stay, thus it also involves the absence of required documents. Irregular work means working without a permit or in a sector banned for immigrants.

For primary estimations of irregular migration flows and stock, we can use statistics of police reports, data on the people detained or fined for violating the migration regulations (Zhang, 2008). Campaigns on regularization of status can also give us information on the number of persons who were issued documents for legal stay in the receiving country. These data, however, can't be considered as sufficient because they only cover part of the stock.

States that are experienced in migration regulation collect and process similar data distributed by country of origin, sex and age. Knowing additional characteristics of migrants makes it

easy to single out the target groups and helps to make the country's migration policy more effective.

Sample surveys and experts polls — employers may also participate — also help to estimate the number of migrants residing or working in the country illegally. In order to get competent estimates only professionals must be invited as experts and the respondents participating in the survey must give honest answers. As questions on irregular status can be very sensitive, the researchers recommend that advanced technologies of conducting sociological surveys should be used so as to avoid getting negative reactions or evasive answers from respondents (Kingsbury et al, 2003). These methods are described in relevant Russian-language sources (Denisenko M.B., Chudinovskikh O.S., 2007).

Policymakers and researchers often take an interest in irregular migration of a certain kind and the associated phenomena. For instance, sometimes they need to know the volume of migrant trafficking, including trafficking of women and children. Since these types of migration are of a criminal nature, they refer to the “hidden” part of migration flows and stocks.

It's almost impossible to measure the number of persons involved in trafficking. According to the US State Department, every year approximately 800,000 people are trafficked across national borders; and this does not include the millions trafficked within their own countries. (Trafficking in Persons Report, 2007). The State Department collects and regularly publishes reports on human trafficking, providing qualitative, sociological information on the life-stories of migrants from different countries who fell victims to trafficking.

Suspected cases are recorded in the countries where human trafficking is a crime, and in theory the statistics should be available in official sources. They should also contain information on a separate category of international migrants. One could also use the data obtained by various non-governmental and international organizations (e.g. International Organization for Migration, International Labour Organization) that fight human trafficking and provide support to the victims. Nevertheless, only rough estimates of human trafficking can still be made.

Direct data on irregular migration are not usually sufficient to describe the situation as these data only represent an insignificant number of irregular migrants. To get a more comprehensive estimation of irregular migration, we can use a few different indirect methods, each of which has its advantages and disadvantages.

Most often these methods require administrative data (not only statistical, but also personal records, which will be demonstrated in “capture-recapture” method). However, in the countries of Eastern Europe and Central Asia, these methods are inapplicable due to the low quality of the migration-related administrative statistics.

Estimates of irregular migration are often based on the balance equations and propose the comparison of expected and actual number of migrants in a country. If administrative statistics on legal foreign populations are reliable and available, we can use the so-called “residual method”. Comparing the administrative statistics with the results from the censuses on migrant population, a certain difference can be discovered which may be considered an estimate of irregular migrant stock, provided that the census is conducted independently of the registers. This method is most widely used in the United States. In 2006, the stock of irregular migrants was estimated as 11.5 million people, 57 per cent of whom were Mexican nationals (Pasel J., 2007). Sometimes vital statistics are also used to evaluate the influence of irregular migration on the population dynamics, but this method has a number of limitations.

On the whole, there are plenty of indirect methods for estimating the irregular migration share in migrant flows and stocks. Almost all are based on methods of mathematical modelling and imply the assumption-based approach (for a detailed description of such indirect methods, see Jandl M., Vogel D., Iglicka K., 2008, Zhang, L.C. 2008).

7. Available sources and necessary data: a check-list for each country

It's a good idea to list the sources of migration statistics available for each country in order to understand what types of statistics should be developed in the first place, whether the existing data satisfy the demands of the users (including policymakers and experts).

We can obtain statistics of flows and stocks of long-term and short-term migration from different systems of data collection. The statistics make sense when they are detailed and not simplified or aggregated. For the purposes of advanced analytical work, the list of variables (and their combinations) may be too long. It is enough to have border-crossing statistics by countries (of origin and destination) and purposes of the trip. But for studying long-term and short-term migration (especially labour migration), we need more detailed statistics.

Several characteristics are necessary to obtain a general understanding of migration processes and trends. Through combinations of variables, we can obtain enough information for competent findings. As a rule, censuses and surveys provide many variables for advanced analysis of a migrant population. Administrative systems that aim to register procedures but not to produce statistics have limited capabilities, but still they collect information on basic socio-demographic characteristics of migration flows and stocks. That's why these sources should be used as much as possible for producing national statistics, especially taking into account the potential of today's information technologies.

Priority, availability and importance of the statistics listed below may differ. The countries mostly sending or receiving many temporary labour migrants may be mainly interested in producing adequate statistics on these flows. Countries with a substantial foreign-born or of foreign origin migrant stock may be mainly interested in characteristics of this part of the population because it helps to better understand the process of integration of immigrants.

Table 16. Sources and data for monitoring international migration flows

I. STATISTICS OF FLOWS		
Type of migration	Available source	Variables (fewer variables for data on out-migration)
Long-term Immigration (for permanent residence)	<ul style="list-style-type: none"> • Population and aliens registers or • Residence permit issuance systems (issued permits) • Systems of registration in a place of residence • NSO data on immigrants 	<ul style="list-style-type: none"> • countries of origin • citizenship • age • sex • educational attainment • skills level • reason for move
Long-term emigration (for long-term residence)	<ul style="list-style-type: none"> • Population and aliens registers • Other systems of registration in a place of residence (data on de-registered emigrants) • NSO data on emigrants • Statistics in the countries of destination (NSO and immigration authorities) 	<ul style="list-style-type: none"> • countries of destination • citizenship • age • sex • educational attainment • skills level • reason for move
Labour in-migration (temporary)	<ul style="list-style-type: none"> • System of work permits issuance • Employers' reports on hired migrants • Reports of special programs for migrant-workers of certain types • Visa statistics of issued job visas (partly) • Border control data (if purpose of entry is identified) • Sample surveys (if data on year of arrival is available and reliable) 	<ul style="list-style-type: none"> • countries of origin • citizenship • age • sex • sphere of occupation /profession • educational attainment • skills level • duration of employment
Labour out-migration (temporary)	<ul style="list-style-type: none"> • Reports of recruiting agencies on contracts signed in the country of origin • Data on work permits issued in the country of destination • Border cards or border control systems (if applied for this purposes) 	<ul style="list-style-type: none"> • countries of destination • age • sex • educational attainment • sphere of occupation /profession • skills level • duration of employment
Granting of refugee status	<ul style="list-style-type: none"> • Systems of processing applications and decisions on them in the country of 	<ul style="list-style-type: none"> • countries of origin /citizenship • sex

I. STATISTICS OF FLOWS

Type of migration	Available source	Variables (fewer variables for data on out-migration)
	<ul style="list-style-type: none"> destination Statistics of stateless persons 	<ul style="list-style-type: none"> age families / persons type (reason) of application
Educational migration	<ul style="list-style-type: none"> Administrative systems of recording migrants or the number of issued permits of residence by purpose of entry (educational purpose) Reporting of educational institutions about the number of foreigners enrolled and graduated 	<ul style="list-style-type: none"> Country of citizenship Sex Duration of stay (type of educational program) according to the International Standard Classification of Education (ISCED) ²⁰ * department (specialization)
Family reunion	<ul style="list-style-type: none"> Administrative systems of recording migrants or the number of issued permits of residence by purpose of entry (family reunion) 	<ul style="list-style-type: none"> Country of citizenship Sex Age Ancestral relationship with a person residing in a country of entry Employment status (or financial dependence on a person residing in a country)
Transit migration	<ul style="list-style-type: none"> Border crossing statistics Visa statistics Data on border detention in the country of destination 	<ul style="list-style-type: none"> Country of origin / citizenship Sex Age
Estimates of irregular migration	<ul style="list-style-type: none"> Apprehensions at the borders in the country of destination 	<ul style="list-style-type: none"> countries of origin /citizenship sex age reason of illegality (apprehension) :illegal entry, stay or employment
Citizenship acquisition	<ul style="list-style-type: none"> In-migrants - data of authorized agency Out-migrants – data of the country of destination (if available) 	<ul style="list-style-type: none"> countries of origin /previous citizenship sex age year of arrival / application submission type of procedure of citizenship acquisition

²⁰ http://www.uis.unesco.org/TEMPLATE/pdf/isced/ISCED_R.pdf

Table 17. Sources and data for monitoring international migration stocks

II. STATISTICS OF STOCKS		
Type of migration	Available source	Required characteristics of migrants (fewer variables for data on out-migration)
Population born abroad	<ul style="list-style-type: none"> • Population registers (if available) • Population censuses • Sample surveys 	<ul style="list-style-type: none"> • countries of origin /birth • citizenship • age • sex • educational attainment • skills level • reason for move • year of arrival to the country
Native-born population residing abroad	<ul style="list-style-type: none"> • Population (and aliens) registers in the country of destination • Censuses and surveys in the country of destination • Emigration module in population censuses and surveys in the country of origin 	<ul style="list-style-type: none"> • countries of residence /destination • citizenship • age • sex • educational attainment • skills level • reason for move • year of arrival
Foreign population residing in the country	<ul style="list-style-type: none"> • Population and aliens registers • Systems of residence permit issuance (residence permit holders) • Population censuses • Sample surveys 	<ul style="list-style-type: none"> • citizenship • age • sex • educational attainment • skills level • reason for move • year of arrival
National population residing abroad	<ul style="list-style-type: none"> • Population and aliens registers in the country of destination or • Residence permits issuance systems (number of residence permit holders) • Population censuses and sample surveys in the country of destination • Country of origin consulate /embassy information (nationals registered in the offices) • Emigration module in population censuses and surveys in the country of origin 	<ul style="list-style-type: none"> • countries of residence • age • sex • educational attainment • skills level • reason for move • year of arrival (departure from the country of origin)
Labour in-migrants	<ul style="list-style-type: none"> • System of work permits issuance – number of work permit holders • Reports of special programs for migrant-workers of certain types • Sample surveys • Data on remittances sent abroad (estimations of stock of migrant workers) 	<ul style="list-style-type: none"> • countries of origin/citizenship • age • sex • sphere of occupation /profession • educational attainment • skills level • duration of employment • year of arrival (residence permit issuance) • remittances- amount and destination

II. STATISTICS OF STOCKS

Type of migration	Available source	Required characteristics of migrants (fewer variables for data on out-migration)
Labour out-migrants	<ul style="list-style-type: none"> • Reports of recruiting agencies on contracts signed in the country of origin - number of valid contracts • Data on work permits holders in the country of destination • Data on remittances from abroad 	<ul style="list-style-type: none"> • countries of destination • age • sex • educational attainment • sphere of occupation /profession • skills level • year of arrival (departure) • duration of employment
Asylum / refugees / protection statistics	<ul style="list-style-type: none"> • Systems of processing of applications and decisions on them in the country of destination – data on status holders 	<ul style="list-style-type: none"> • countries of origin /citizenship • sex • age • families / persons • year of arrival • type (reason) of application
Educational in-migrants	<ul style="list-style-type: none"> • Administrative systems of recording migrants or the number of issued permits of residence by purpose of entry (educational purpose) • Reporting of educational institutions about the number of foreigners enrolled and graduated 	<ul style="list-style-type: none"> • Country of citizenship • Sex • Duration of stay (type of educational program) according to the International Standard Classification of Education (ISCED) ²¹ • * department (specialization)
Educational out-migrants	<ul style="list-style-type: none"> • Statistical resources of international institutes and organizations collecting information on international students (OECD, UNESCO, USA institute of international education) 	<ul style="list-style-type: none"> • Country of destination
Relatives and dependents of persons legally residing in a country of destination	<ul style="list-style-type: none"> • Administrative systems of recording migrants or the number of issued permits of residence by purpose of entry (family reunion) 	<ul style="list-style-type: none"> • Country of citizenship • Sex • Age • Ancestral relationship with a person residing in a country of entry • Employment status (or financial dependence on a person residing in a country)
Transit migration	<ul style="list-style-type: none"> • Surveys, apprehensions at the borders 	<ul style="list-style-type: none"> • Country of origin /citizenship • Country of next destination

²¹ http://www.uis.unesco.org/TEMPLATE/pdf/isced/ISCED_R.pdf

II. STATISTICS OF STOCKS

Type of migration	Available source	Required characteristics of migrants (fewer variables for data on out-migration)
		<ul style="list-style-type: none"> • Sex • age
Estimates of irregular migration	<ul style="list-style-type: none"> • Regularization campaigns, • Survey data • Apprehensions of irregular and undocumented migrants 	<ul style="list-style-type: none"> • Countries of origin /citizenship • Sex • Age • Type of illegality (reason for apprehension): illegal entry, stay or employment
Citizenship acquisition	<ul style="list-style-type: none"> • (If available) census or survey data on ways of citizenship acquisition 	<ul style="list-style-type: none"> • Countries of origin/previous citizenship • Sex • Age • Year of arrival / application submission • Type of procedure of citizenship acquisition

International organizations, especially the United Nations, regularly collect statistics from member countries on flows and stocks of migrants²². To obtain harmonized and homogeneous statistics, special requests are sent to the countries. In addition to the joint questionnaire of Eurostat, the Council of Europe and the Economic Commission for Europe, used since 1993, the UN Population Division recently made an attempt to collect statistics on the following categories:

²² Similar questionnaires and requests are distributed by OECD, ILO and some other organizations. List of indicators often coincides.

Table 18. List of data in the request sent by the UN Population Division to Eastern European and Central Asian countries

OBJECTS OF MEASUREMENT	VARIABLES
FLOWS	<ul style="list-style-type: none">• Long-term immigration / emigration by countries of previous / next place of residence and citizenship• Immigrants by purposes of arrivals (grounds for getting residence permit) and countries (regions) of citizenship• Emigrants by purposes of departure and countries (regions) of citizenship <i>Additional information:</i> <ul style="list-style-type: none">• Obtaining citizenship: by country of previous citizenship and sex
STOCKS BY COUNTRIES OF BIRTH	<ul style="list-style-type: none">• All population by countries (regions²³) of birth, age and sex• Population born abroad by countries (regions) of birth, period of arrival and sex• Population at the age of 15 and older by countries (regions) of citizenship, level of education and sex
STOCKS BY COUNTRIES OF CITIZENSHIP	<ul style="list-style-type: none">• All population by countries (regions) of citizenship, by age and sex• All population by countries (regions) of citizenship, period of stay and sex• Population at the age of 15 and older by countries (regions) of citizenship, level of education and sex

Unfortunately, for practical reasons national statistical agencies are not always able to provide such statistics, usually due to the absence of basic data for the requested variables.

²³ Continents.

8. Presenting and understanding migration statistics: how to avoid mistakes

8.1 Presenting the data

Descriptive statistics presented using a set of tables or diagrams offer information on the composition of migrants, including by countries of origin and destination, distribution by geographical units within the country, age, sex, educational attainment and marital status. Statistical time series provide an opportunity to see the trends and changes in patterns of migration.

Before starting any analysis, we need to make sure that the tables are correct and relevant for the intended descriptions and analysis. The same applies to the metadata descriptions, translations and interpretations, before the results of this work are published.

Presentation of statistics is often accompanied by the following mistakes:

- Lack of sufficiently detailed statistics (when aggregation masks important differences between different groups of migrants). For example, data on immigrants and emigrants are not available by country but only by group of countries (CIS/outside CIS), or no information on migrants by sex and five-year (minimum) age groups is available.
- Data are not presented in a time series: only the statistics from the previous year are available or, on the contrary, the statistics have not been updated for some years.

Good practice:

Table 19. International migration in Kyrgyzstan

5.01.00.14 Внешняя миграция населения по государствам		Примечание: по методу показателей (таблица - серия 1 месяца последующих периодов)																	
прибытия (выезды)																			
Наименование показателя	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Число прибытий - всего	40 939	37 558	26 275	23 015	20 104	18 368	15 910	12 799	10 219	7 579	5 349	5 048	4 893	4 483	3 284	3 761	3 420	3 960	3 497
в том числе граждан из стран СНГ:																			
Азербайджан	390	718	383	227	175	101	121	120	64	33	34	23	14	13	6	15	9	3	1
Армения	52	32	24	42	22	17	8	9	3	7	1	9	7	1	6	1	1	4	-
Белоруссия	363	225	168	121	107	110	75	57	20	20	10	19	21	16	13	10	15	11	7
Грузия	76	101	56	60	28	19	16	4	1	9	7	3	3	-	-	2	1	-	-
Казахстан	9 672	7 875	5 460	4 150	4 205	3 679	3 258	2 895	2 215	1 369	908	674	769	740	509	445	456	530	513
Молдова	67	54	28	33	10	7	14	9	5	4	13	5	3	-	4	-	-	-	1
Россия	18 744	17 818	13 257	11 076	10 890	9 867	8 195	6 328	5 254	3 988	2 358	2 646	2 840	2 787	1 891	2 471	2 241	2 673	2 304
Таджикистан	1 173	963	869	3 354	1 759	1 632	1 714	1 442	835	881	690	508	701	504	490	515	443	475	411
Туркменистан	188	212	122	78	44	89	92	77	31	21	27	12	2	3	2	11	5	5	9
Узбекистан	8 009	7 553	4 598	2 976	2 231	2 248	1 912	1 529	1 463	1 348	1 177	806	412	327	340	184	133	120	118
Украина	1 512	1 359	929	613	437	383	386	218	170	135	76	76	53	40	34	10	17	23	12
Страны СНГ без указания территории	-	-	-	-	-	-	24	3	4	-	-	-	-	-	-	-	-	-	-
Страны Балтии	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Литва	84	82	78	56	26	13	14	3	4	2	1	2	1	1	-	-	1	-	-
Латвия	50	36	29	22	12	3	-	3	-	2	-	1	1	3	4	-	2	2	-
Эстония	29	16	23	19	5	6	5	1	6	2	-	-	-	-	-	-	-	-	-
Страны вне СНГ в том числе:	728	492	251	188	133	189	75	101	122	58	47	54	67	48	83	97	96	114	119
Германия	-	-	-	-	-	-	19	53	52	30	18	19	32	21	41	34	45	34	28
Ирландия	-	-	-	-	-	-	12	9	9	1	6	4	2	5	4	4	3	3	11
США	-	-	-	-	-	2	2	2	1	3	-	3	5	1	7	9	14	10	10
Число выездов - всего	82 851	71 315	103 728	143 619	71 197	37 302	27 584	19 538	15 671	17 818	27 887	31 633	32 717	21 209	22 607	30 741	34 423	54 608	41 287
в том числе граждан из стран СНГ:																			
Азербайджан	3 123	544	228	116	52	39	29	13	33	27	31	25	37	25	50	29	22	20	11
Армения	48	31	22	28	10	6	6	2	2	6	1	4	8	4	2	2	2	2	1
Белоруссия	425	401	1 076	1 319	328	161	146	118	85	129	302	232	191	122	182	105	140	93	57
Грузия	73	75	48	39	24	17	16	9	4	9	12	6	5	6	5	10	2	-	2
Казахстан	8 607	7 875	6 485	9 916	3 923	2 969	2 448	1 510	1 348	1 382	1 920	2 628	3 491	3 675	3 978	4 284	5 192	4 243	3 068
Молдова	63	60	38	53	30	24	22	11	17	13	8	6	2	9	7	1	-	-	-
Россия	38 770	33 674	83 385	106 456	49 450	20 117	15 084	11 410	8 714	10 111	20 793	24 617	25 242	14 214	16 161	24 677	28 070	46 333	37 472

Source: website of Statistical Committee of the Kyrgyz Republic: <http://www.stat.kg/rus/part/census.htm>

8.2 Translation challenges

Not everyone knows foreign languages and it's not always possible to have a person nearby who is able to translate the contents of a table with statistics or an analytical publication, especially if they are available in languages not commonly used or learned in the country.

Good practice: The Demographic Yearbook of Armenia is available in three languages

ՄԱՐԿԱԿԱՆՈՒԹՅԱՆ ԿԱՆՈՒՄՆԵՐԸ - POPULATION - НАСЕЛЕНИЕ				
29. ՄԱՐԿԱԿԱՆՈՒԹՅԱՆ ՍԵՂՈՒՄՆԵՐԻ ԿԱՆՈՒՄՆԵՐԸ ԸՈՅ ՏԱՐԱԿԱՆ ԽՈՐԵՐԸ THE STRUCTURE MIGRATION BY AGE GROUPS СТРУКТУРА МИГРАЦИОННОГО ПЕРЕТЕКАНИЯ ПО ВОЗРАСТНЫМ ГРУППАМ				
Տարիքային խումբերը Age - Years Возраст, лет	Միգրանտներ - Иммигранты		Եմիգրանտներ - Эмигранты	
	Ընդամենը Male Мужчины	Պարկեր Females Женщины	Ընդամենը Male Мужчины	Պարկեր Females Женщины
2004				
0-19	32.7	18.4	26.3	17.1
20-49	44.3	61.9	48.7	63.7
50 և ավելի 50 and over	23.0	19.7	24.0	19.2
Ընդամենը Total	100	100	100	100
2005				
0-19	28.1	15.6	29.2	16.9
20-49	49.9	67.4	48.4	64.6
50 և ավելի 50 and over	22.0	17.0	21.4	18.5
Ընդամենը Total	100	100	100	100
2006				
0-19	27.0	16.1	27.0	14.3
20-49	49.6	64.6	48.4	67.1
50 և ավելի 50 and over	23.2	19.3	23.6	18.1
Ընդամենը Total	100	100	100	100
2007				
0-19	25.1	13.0	22.8	12.9
20-49	51.7	69.0	52.4	66.9
50 և ավելի 50 and over	23.2	18.0	24.8	20.2
Ընդամենը Total	100	100	100	100
2008				
0-19	29.7	10.7	23.3	11.9
20-49	45.7	70.6	51.0	70.9
50 և ավելի 50 and over	24.6	17.7	25.7	17.2
Ընդամենը Total	100	100	100	100

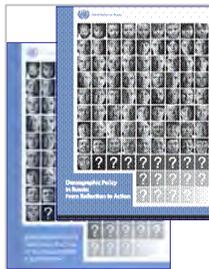
46 - Երևան, 2009 թ. - Statistical Yearbook of Armenia - Статистический ежегодник Армении - 2009

Absence of translations is often a big obstacle for those who work with statistics in general. It prevents them from familiarizing themselves with the experience and statistics of other countries or reading useful analytical and practical articles. Some methodological publications on migration statistics (mainly publications of big international organizations) are available in several languages, including Russian. But much important information is published only in one language, English; nowadays the main language of international communication.

Poor knowledge of English is still an issue for many specialists from the former Soviet republics. Statistics should be published in at least two languages. Besides a country's national language, English is considered the standard language for statistical reports.

Also one should bear in mind the historical background of the language that is widely spoken in a certain region: such as Russian in the former Soviet countries or French in some Arabic (and African) countries. It is especially important to publish statistics in the language spoken in the countries that belong to the same migration system.

Not only should statistics be subject to translation, analytical publications are also often translated or summarized in foreign languages in order to broaden the circle of readers. However, sometimes translators are not sufficiently familiar with the subject matter to translate technical terminology correctly. Or they may try to "edit" the original text and creatively supplement it with their own conclusions. Thus, the translations may distort the sense of original text. If possible, before a translation is published it should be at least partially compared with the text of the original by someone familiar with the subject matter. As soon as the incorrect version goes public, references to the incorrect text are inevitable.



Bad example: *Source: Demographic Policy in Russia: From Reflection to Action. United Nations in Russia, Moscow 2007. Translated from Russian into English.*

The original Russian version said: “Official statistics indicate²⁴ that 8.6 million individuals moved to reside in Russia permanently in 1991-2006 resulting in net migration of approximately 4 million persons. Under the condition of a demographic crisis and population decline migration appeared to be the only source of reinforcement of the labour force and partly compensated for the natural decrease of population that equalled about 11 million persons within the same period of time”.

However, the official English translation went as follows: “Official statistics indicate that 8.6 million individuals moved to Russia to reside permanently in 1991-2006, resulting in net

²⁴ There was much underestimation of migrants starting in the mid 1990s due to the changes of regulations of collecting information from institutions under the Ministry of Internal Affairs.

migration of approximately 4 million people. The arrival of more than 11 million migrants became a crucial support to a shrinking workforce and a declining population”.

Two subsequent sentences contain different information, which raises the question of how many migrants arrived in Russia—8.6 million or 11 million? And the numbers characterizing the natural decrease of population disappeared.

8.3 Understanding statistics

Migration statistics are often interpreted incorrectly. Data on stocks and flows are confused; stocks of foreign-born population are understood to be the result of recent migration. The estimates by the United Nations Department for Economic and Social Affairs (UN DESA) are well known, and widely used by international organizations. They show that “The United States of America is the largest recipient of international migrants and is projected to host 42.8 million migrants in 2010. It is followed by the Russian Federation (12.3 million).” (UN DESA. Trends in International Migrant Stock, 2008). Many sources quote this statement (UNDP Human Development Report 2009), interpreting it as data on recent flows of immigrants.

Journalists are usually to blame for this error. Here's a typical example from the popular Russian online news portal Lenta.ru: “Russia takes the second place in the world by number of arriving migrants. This data was published in the report of the UN Secretary-General Kofi Annan presented on April, 3 during the 39th session of UN Commission on Population and Development²⁵”. In fact, the number mentioned in the report referred to the international migrant stock.

Moreover, for correctness of international comparisons, the data on former Soviet republics are not covered by the analysis (Monitoring of World Population devoted to International Migration and Development. Report of the UN Secretary-General, 2006), as the majority of “international migrants” arrived from other Soviet republics before the break-up of the Soviet Union.

Here is another typical example from the Russian media. Similar articles appear each time the World Bank publishes its regular overview “Migration and Remittances”. “Yesterday the World Bank (WB) published a report on remittances of labour migrants according to which Russia is among the top five countries [...] receiving migrants – over 12 million migrants this year. Meanwhile the head of Federal Migration Service (FMS) insists that [...] only 5 million foreigners are currently working in the country. [...]World Bank estimates that by the end of 2010 more than 12 million of people will have migrated to Russia”.²⁶

²⁵ Source: <http://lenta.ru/news/2006/04/04/migrants/>

²⁶ A. Bashkatova Russian Guest Workers take the lead http://www.ng.ru/economics/2010-11-10/4_gastarbaiter.html (in Russian)

Unfortunately, the authors of the World Bank report never point out that the number of migrants they refer to in their paper is actually an estimation of the population born abroad made by the UN Population Division, and comprises not only labour migrants.

Researchers, too, frequently make the same error when interpreting data²⁷. In the text below, for example, the author confuses flows and stocks and doesn't use official statistics of migration flows, which could help her to clearly see the actual migration inflow to Kazakhstan for the given period.

Within Eurasia, Russia, Ukraine and Kazakhstan are the largest migrant recipients. During 2000-2007 Russia hosted on average 12 million migrants or 8-9% of its total population. Kazakhstan, in turn, had 2.5-3 million immigrants during the same period, which comprised 16-19% of its population.⁴ The gap between the number of permits and the estimated number of migrations suggests that the vast majority of these migrants are forced to work illegally. Each year Russian employers obtain over 300,000 work permits for foreigners, while even official figures count from three to five million guest workers coming to Russia annually.⁵ This quota applies only to professionals, not unskilled workers.

After the United States, Russia is the second-largest migrant-receiving country in the world, while Kazakhstan ranks 16th. For the most part, Russia and Kazakhstan receive far more labor migrants than refugees. Both

Nowadays, the statistics of receiving countries are frequently used. The Federal Migration Service of the Russian Federation has made significant progress in developing data and publishing statistics. Countries sending migrants to the Russian Federation refer to these data to estimate flows and stocks of their citizens leaving for and residing there. In such a situation one needs to understand what categories of migrants are implied.

Migrant registration data are statistics of procedures and not people, since the Russian migration authorities can register the same migrant several times during one year. For example, in 2010 over 900,000 registration procedures for citizens of Tajikistan were recorded while the number of arrivals in the Russian Federation (including repeated arrivals) didn't exceed 600,000.

Overestimation of migration flows and stocks is the usual practice both in sending and receiving countries, with politicians and NGO representatives practising it most often. Leaving aside the reasons and purposes of such an approach, we will concentrate on methods of verifying the estimations.

²⁷ <http://www.silkroadstudies.org/new/docs/silkroadpapers/0905migration.pdf>

Let's take a quote from an Internet publication that states that the number of Kyrgyz labour migrants in the Russian Federation may be well above 1 million people.²⁸ However, according to Russian border-crossing statistics, only 400,000-500,000 Kyrgyz citizens enter the country annually. Even if we take into account the accumulated difference between arrivals and departures that occurs due to the deficiencies in recording, it's impossible to obtain the figure of 1 million. Besides, it is unlikely that one fifth of the Kyrgyz population and a large part of the working-age male population would be located abroad simultaneously.

8.4 The Importance of knowing metadata

Errors such as those recently referred to could be avoided if, firstly, official statistics were used, and secondly, no less importantly, if authors read the paragraph "Metadata" or "Methodology", which usually accompanies statistical publications. This text is available not only in statistical yearbooks published on paper or downloaded onto CDs/DVDs, but also on the websites of many data collecting and publishing agencies. The section called "metadata" or "methodological explanations" is easy to find.

Unfortunately, users often ignore this information. However, it's only here in a brief and comprehensive form that we can get a description of the concepts and definitions, classifications, data sources and methods that were used to collect and process the data.

Country	Types of migrant recorded in the data	Other comments	Source
Austria	Criteria for registering foreigners: holding a residence permit and intending to stay in the country for at least 6 weeks.	Until 2001, data are from local population registers. Starting in 2002, they are from the central population register, when the nationality field is optional. The "other countries" line includes persons whose nationality is unknown.	Statistics Austria.
Belgium	Criteria for registering foreigners: holding a residence permit and intending to stay in the country for at least 3 months. Outflows include administrative corrections.	Figures do not include asylum seekers who are recorded in a separate register.	Population Register, National Statistical Office.

Methodические пояснения

Данные о международной и внутрисоюзной миграции получены в результате разработки поступающих от территориальных органов Федеральной миграционной службы документов статистического учета прибытия и выбытия (листок статистического учета прибытия и листок статистического учета выбытия), которые составляются при регистрации или снятии с регистрационного учета населения по месту жительства.

Не статистические учетные документы на мигрантов, зарегистрированных по месту пребывания, вне зависимости от пребывания в настоящее время не обрабатываются.

В ряде правовых документов, разработанных в целях реализации федерального закона "О правовом положении иностранных граждан в Российской Федерации" и регламентирующего порядок оформления разрешения на временное проживание и вида на жительство, не содержатся нормы о составлении и передаче первичных документов статистического учета мигрантов в органы статистики.

С вступлением в действие федерального закона и до 2007 г. в территориальные органы Росстата поступали листки статистического учета прибытия, составленные по регистрации по месту жительства иностранных граждан и лиц без гражданства, а также листки статистического учета выбытия, составленные по регистрации по месту жительства иностранных граждан и лиц без гражданства, впервые получивших разрешение на временное проживание.

Понятия "прибытие" и "выбытие" характеризуют миграцию с некоторой условностью, поскольку один и тот же человек может в один раз сменить место постоянного жительства не один раз.

7.1 и 7.2 под регионами понимаются субъекты Российской Федерации – республика, край, область, город федерального значения, Чукотский автономный округ.

7.11 приведены данные о мигрантах по странам гражданства, численность которых среди прибывших и выбывших наиболее велика.

7.12 приведены данные о международной миграции по странам разрабатываются с 1997 г., данные о гражданстве мигрантов – с 2002 г.

Metadata may explain large fluctuations in the size and composition of flows and stocks. Legal rules and regulations may have a considerable impact on migration processes and

²⁸ <http://digestweb.ru/32820-skolko-migrantov-perevarit-rossiya.html>

migration statistics. They could indicate what categories of migrants are included or excluded from statistical observation. For instance, immigration statistics based on issued residence permits rule often don't take minors into account since these don't need a separate permit. The same rules and regulations could influence the volume of flows and stocks of migrants, if a country's migration policy became more restrictive or, more liberal.

9. Providing access to statistics



Statistics are collected for the purposes of analysis and use in formulating policy strategies and for implementing and evaluating policies. Only the active and wide use of statistics can identify their limitations and stimulate their improvement. Therefore, a lack of free public access to the statistics can hardly be regarded as good practice.

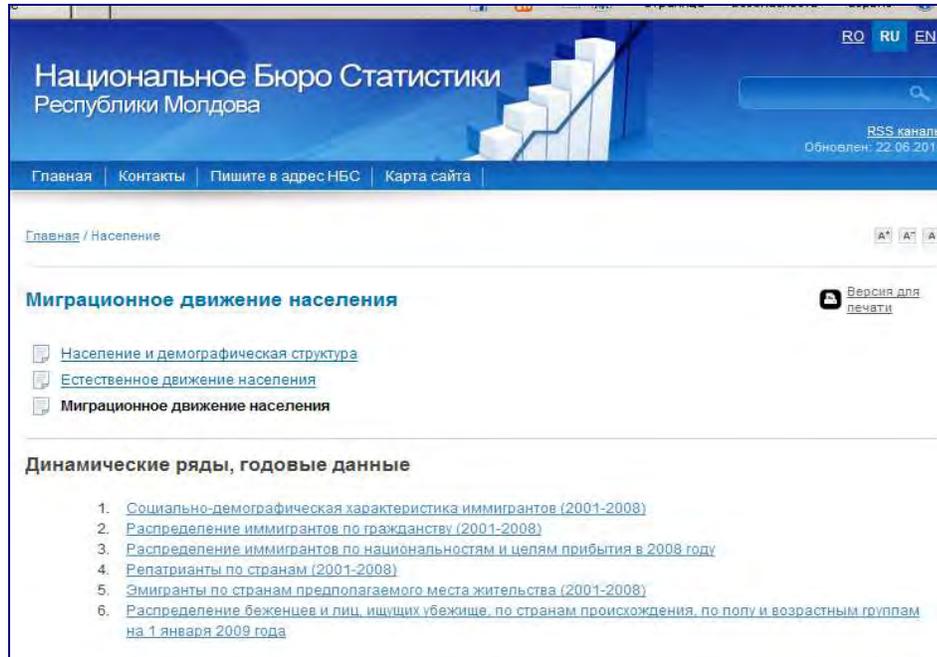
The same applies to the publication of data on websites of the agencies collecting and processing data. Some statistical agencies, especially administrative agencies, that produce statistics either don't publish them, or limit the access to them or charge a (sometimes hefty) fee for accessing them.

Demographic statistics and migration statistics should be available to all users regardless of where they reside, their citizenship or whether they belong to any particular agency. In the countries of the Eastern European and Central Asian region, the provision of financial support to buy statistics is not common, especially for independent researchers. If all statistical bodies were to start selling their statistics, instead of disseminating them free of charge, international comparisons would be carried out by only those few researchers who could afford to pay.

In spite of the advances in information technologies, only a few countries are using the new opportunities for disseminating data. Detailed information on migration and migrants is often available only in hard copies in the national statistical offices. The data available on the websites of national statistical offices are limited to a small and fixed range of variables.

Like many other types of statistics, the data on migration statistics may be published as a finished report, or as an online database where a user can select countries and regions, build time series or make international comparisons. Finished reports should be published in a format that allows calculations to be made and doesn't require the input of the data into a computer for the second time (for example, not PDF, but HTML, Excel, etc.).

Good practice: Migration statistics on the website of Central Statistical Bureau of the Republic of Moldova.



Resource: <http://www.statistica.md/pageview.php?l=ru&idc=334&id=2340>

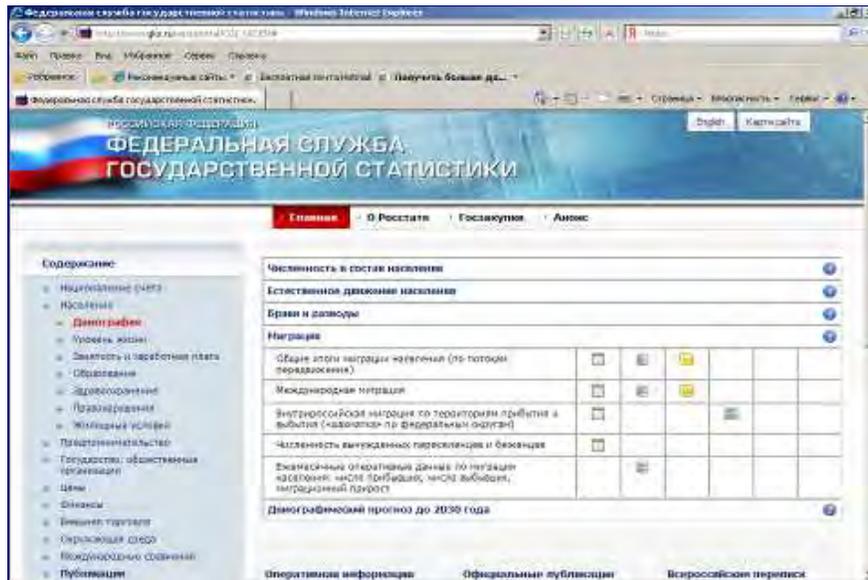
Online databases are very handy tools for getting the necessary information. The US Census Bureau is an example of good practice. The data on stocks of migrants born in different countries are available in disaggregated form by a number of variables.

Good practice example: Fragment of table FBP-1, data of the 2000 population census in the USA, the number of people born in Armenia

Table FBP-1. Profile of Selected Demographic and Social Characteristics: 2000					
Population Universe: People Born in Armenia ¹					
Geographic Area: UNITED STATES					
[For information on confidentiality protection, sampling error, nonsampling error, and definitions, see http://www.census.gov/prod/cen2000/doc/cf3.pdf]					
Subject	Number	Percent	Subject	Number	Percent
Total population.....	65 280	100.0	SEX AND AGE		
U.S. CITIZENSHIP AND PERIOD OF U.S. ENTRY			Total population.....	65 280	100.0
Naturalized U.S. citizen.....	31 630	48.5	Male.....	31 695	48.4
Entered 1990 to 2000.....	10 990	16.8	Female.....	33 695	51.6
Entered 1980 to 1989.....	14 415	22.1			
Entered before 1980.....	6 240	9.6	Under 5 years.....	455	0.7
Not a U.S. citizen.....	33 650	51.5	5 to 9 years.....	1 785	2.7
Entered 1990 to 2000.....	26 060	39.9	10 to 14 years.....	5 970	9.1
Entered 1980 to 1989.....	6 505	10.0	15 to 19 years.....	6 235	9.6
Entered before 1980.....	1 080	1.7	20 to 24 years.....	6 455	9.9
			25 to 34 years.....	11 710	17.9
RACE			35 to 44 years.....	15 740	24.1
One race.....	50 340	77.1	45 to 54 years.....	9 450	14.5
White.....	49 955	76.5	55 to 59 years.....	1 375	2.1
Black or African American.....	85	0.1	60 to 64 years.....	1 860	2.8
American Indian and Alaska Native.....	15	0.0	65 to 74 years.....	2 520	3.9
Asian.....	65	0.1	75 to 84 years.....	955	1.5
Native Hawaiian and Other Pacific Islander.....	-	-	85 years and over.....	755	1.2
Some other race.....	220	0.3			
Two or more races.....	14 940	22.9	Median age (years).....	35.0	(X)
HISPANIC OR LATINO ORIGIN			18 years and over.....	53 375	81.8
Hispanic or Latino (of any race).....	305	0.5	Male.....	25 610	39.1
Not Hispanic or Latino.....	64 975	99.5	Female.....	27 865	42.7
White alone.....	49 710	76.1	21 years and over.....	49 530	75.9
			62 years and over.....	5 450	8.3
LANGUAGE SPOKEN AT HOME			65 years and over.....	4 255	6.5
Population 5 years and over.....	64 825	100.0	Male.....	1 740	2.7
English only.....	2 035	3.1	Female.....	2 515	3.9
Language other than English.....	62 790	96.9			
Speak English less than "very well".....	35 485	54.7	MARITAL STATUS		
Spanish.....	180	0.3	Population 15 years and over.....	57 070	100.0
Speak English less than "very well".....	90	0.1	Never married.....	15 415	27.0
Other Indo-European languages.....	62 230	96.0	Now married, excluding separated.....	35 225	61.7

Source: <http://www.census.gov/population/www/socdemo/foreign/STP-159-2000t1.html>

One more example of an online database on migration flows is on the Federal State Statistical Service (Rosstat) website. Data on migration flows are available in two formats—Excel and HTML—which is very convenient for further work.



Source: www.gks.ru

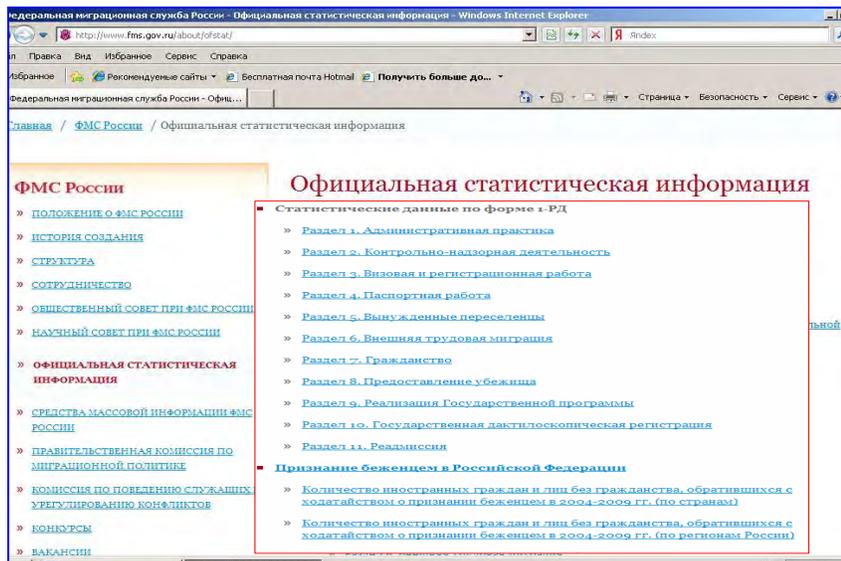
Publication of administrative data in the countries of Eastern Europe and Central Asia is rather rare. In general, access to administrative data is restricted. As the agencies responsible for migration policy are not eager to publish reports, users have to make great effort to get any statistical information. Nowadays it's considered a success if at least aggregated statistics are published.

Good practice: Border statistics on the website of the Migration Agency of the Republic of Armenia

тысяч человек					
Годы	Прибыло	Выбыло	Сальдо	Общий объем пассажиропотоков	Рост/убыль пассажиропотоков по сравнению с предыдущим годом, в %%
2000	399,7	457,2	-57,5	856,8	
2001	508,2	568,6	-60,4	1076,8	125,7
2002	590,7	593,4	-2,7	1184,0	110,0
2003	618,3	628,5	-10,2	1246,9	105,3
2004	739,9	737,8	2,1	1477,7	118,5
2005	845,8	833,3	12,5	1679,2	113,6
2006	983,7	962,0	21,8	1945,7	115,9

Source: [//backtoarmenia.am/?hcat=85&scat=87](http://backtoarmenia.am/?hcat=85&scat=87)

National statistical agencies often receive and process statistics of a certain type—for example, on migration for permanent residence. More diverse data are required to evaluate the migration situation. These types of data come from administrative sources.



Source: <http://www.fms.gov.ru/about/statistics/data/>

The lack of published data doesn't mean, however, that no statistics are available. Since all administrative procedures are counted and classified, if several visas of different types are issued, each visa is recorded. The same applies to other administrative procedures. But these individual records are not necessarily processed into meaningful statistics. For this to happen, the agency must have both the will and the capacity to produce such statistics — for its own use in planning and budgeting as well as for reporting on its operation to ministries and the public.

A few years ago, the Federal Migration Service of the Russian Federation introduced the form 1-РД (1-RD), which combines the indicators of the work of all the 11 departments of the service. The form is modified, new variables are added to it and the data are regularly updated and published online on the FMS website. Form 1-РД is the only source available to all the users.

The best practices of supplying administrative statistical data on migration can be found in countries with a long history of receiving migrants and regulating migration.



Providing access to microdata

National statistical offices and ministries collecting migration data cannot single-handedly process the statistical data on all the variables and their combinations requested by users. In many countries, giving researchers access to anonymized microdata has become a kind of "cultural norm". This step doesn't require additional financing. On the contrary, allowing public access to microdata reduces an agency's additional data-processing burden.

The main issue is to protect the confidentiality of information on minorities or persons who could easily be identified without providing their names or last names: for example, if the data relate to representatives of a small ethnic or religious group. Special statistical methods can be employed to avoid such identification of individuals and keep personal information protected. Some data providers stipulate for certain terms of microdata usage to avoid identification of persons or unauthorized dissemination of information.

Anonymized microdata may be provided for all individuals or for a sample. The sample size and structure may be determined by the size of the groups that need to be reliably estimated and based on the decision taken by the agencies that possess that data. For instance, it can be 1, 5 or 12 per cent of the total population, and may be absolutely free of charge or provided for a fee.

Good practice: Online access to microdata on migration of the US Census Bureau, Statistics Canada and Minnesota Population Centre, University of Minnesota where an international integrated base of microdata (IPUMS) was opened for free public access.

The image displays two screenshots of government websites. The top screenshot is from the USCensusBureau website, showing a navigation menu with links for 'Microdata', 'Selected Special Tabulations', and 'American Community Survey'. The 'Microdata' section lists '1-Percent Public Use Microdata Sample (PUMS)' and '5-Percent Public Use Microdata Sample (PUMS)'. The 'Selected Special Tabulations' section lists 'Worker Flow Files', 'County-To-County', and 'Minor Civil Division (MCD) to County and County to MCD'. The 'American Community Survey' section is partially visible. The USCensusBureau logo and tagline 'Helping You Make Informed Decisions' are also present, along with the page last modified date: October 07, 2009.

The bottom screenshot is from the Statistics Canada website, showing the 'Public use microdata file (PUMF): Ethnic Diversity Survey - 2002'. The page includes a navigation menu with links for 'Français', 'Home', 'Contact Us', 'Help', 'Search', and 'canada.gc.ca'. The main content area describes the Ethnic Diversity Survey (EDS) as a post-censal survey which included about 42,500 people aged 15 and over who were interviewed by telephone in the 10 provinces between April and August 2002. The target population did not include persons living in collective dwellings, persons living on Indian reserves, persons declaring an Aboriginal origin or identity in the 2001 Census, or persons living in Northern and remote areas. The 'Data file Characteristics' section lists 'eds-edc-compress-cd-2002.zip', 'Record Count:', and 'Record Length (in bytes):'. Additional documentation is also mentioned.

Statistical agencies of several countries of the Eastern European and Central Asian region are discussing the possibility of access to the sample of microdata collected during the population censuses in 2010. Users are waiting impatiently for a positive resolution of this issue so that they can start working with unique and long-awaited information that will open entirely new possibilities in studying population migration.

10. International sources of migration statistics

International organizations that work with migration issues collect and aggregate national statistics on migration flows, stocks and characteristics of migrants. Some of these organizations do this according to a mandate from national statistical agencies and governments. They collect the statistics by sending out to countries and then gathering a series of standard table-templates, sometimes called “questionnaires on international migration”.

They then aggregate the collected statistics and publish them online. This method simplifies the search for information on foreign countries and gives users the chance to quickly get statistics for international comparisons. Quite often, comparisons can be made for a number of years.

International databases are excellent additions to the statistics produced by national statistical offices, and are shared among users all over the world through websites and publications. The working language of these sources is usually English. The language of the tables and published statistics is not complicated and is quite understandable, even if a user only has a basic knowledge of English.

Here's a list of just some of the organizations providing migration data:

- UN Population Division
- UN Statistics Division
- UNHCR
- UN regional commissions (including the Economic Commission for Europe)
- Council of Europe
- OECD (OECD-SOPEMI)
- Eurostat
- International Labour Office (ILO)
- International Organization for Migration (IOM).

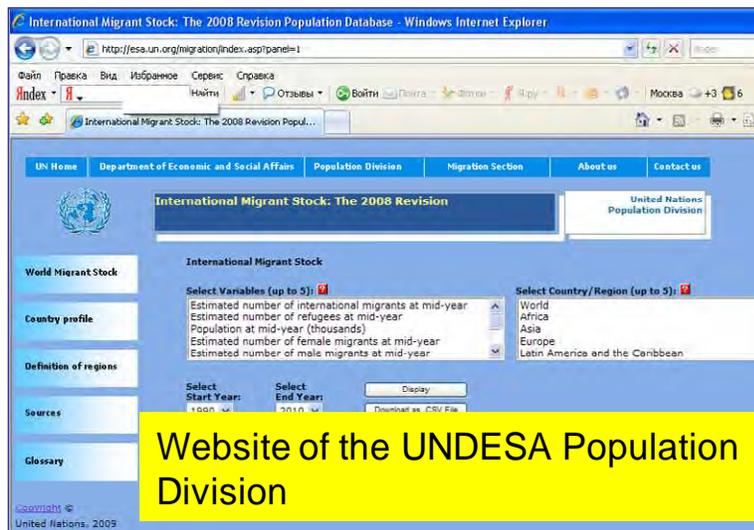
Below are some links to websites with databases:

UN Statistics Division publishes recommendations on data collection methods, including recommendations on census questionnaires, and provides access to the census programs and census questionnaires of many countries. With the help of this source one can see what migration related questions were used in the censuses of different countries.



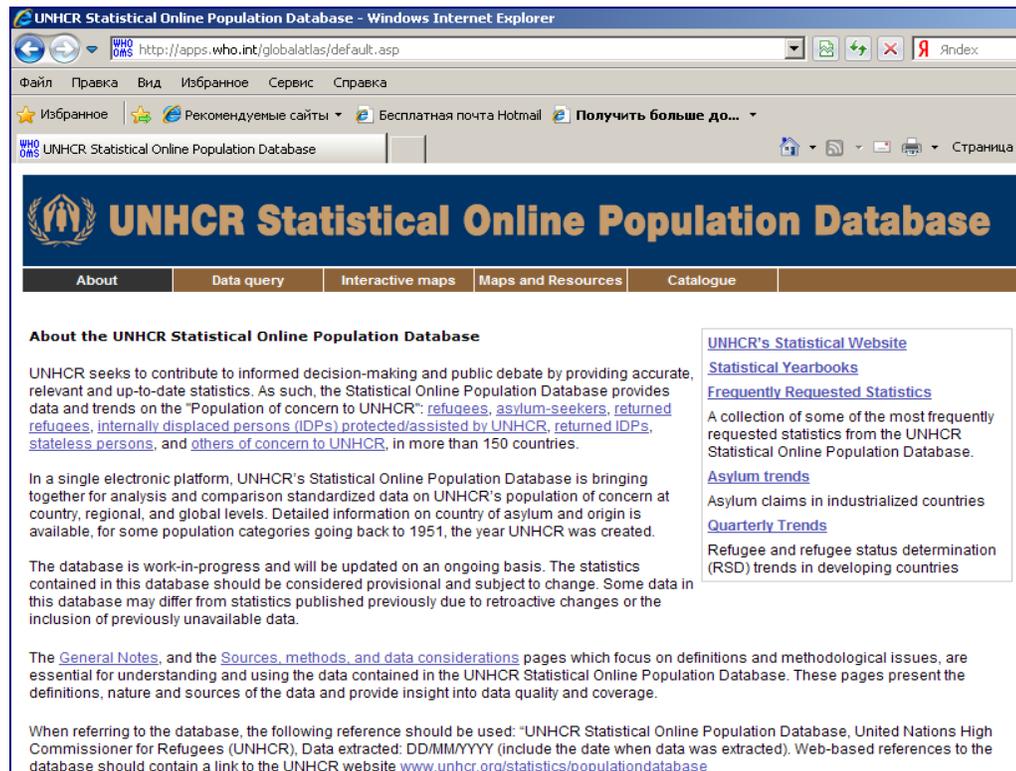
<http://unstats.un.org/unsd/demographic/sources/census/censusquest.htm>

UN Population Division developed and now updates a database on international migrant stock born abroad (2008 version). This is the main source of regularly updated estimates on international migrant stock by country and region.



<http://esa.un.org/migration/>

UNHCR operates an easily accessible online database on population, which contains diverse information on forced migrants.



www.unhcr.org/statistics/populationdatabase

Some types of statistics are most frequently requested; and to simplify access to this data one can build a table using the link: <http://www.unhcr.org/statistics/STATISTICS/45c06c662.html>

The **United Nations Economic Commission for Europe (UNECE)** by the end of 2011 will launch the new online "Clearinghouse on International Migration Statistics" on its migration statistics web page (<http://www.unece.org/stats/archive/01.01b.e.html>). The Clearinghouse will host data collected annually from countries of Eastern Europe, Caucasus and Central Asia (EECCA). This initiative was promoted as a follow-up to the "UNECE Guidelines for Exchanging Data to Improve Emigration Statistics" (available on the above-mentioned web page) that were endorsed by the Conference of European Statisticians in 2009.

The Organisation for Economic Co-operation and Development (OECD) runs the world-famous Continuous Reporting System on Migration (SOPEMI) and database on international migration:

The screenshot shows the OECD migration statistics website. The main content area on the left lists various statistical series and country tables, including sections for 'Cross national tables' and 'Country tables'. On the right, there are three promotional banners: 'OECD migration databases', 'DID YOU KNOW? but are among the hardest hit by the economic downturn. International Migration Outlook 2009', and 'Editor's Choice'.

<http://stats.oecd.org/Index.aspx?datasetcode=MIG>

There is also a special resource that provides access to statistics of international students in the OECD countries:

http://www.oecd.org/document/54/0%2C3343%2Cen_2649_39263238_38082166_1_1_1_37455%2C00.html

Eurostat offers open access to statistics on refugees, immigrants and some other data on migration.

geo	time	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
European Union (27 countries)		-	313645	380430	406385	424180	421470	344300	270671 ^P	224671 ^P				
Belgium		1780	21965	35780	42880	24856	18800	13585	12490 ^P	12571 ^P				
Bulgaria		370	835	1350	1755	2430	2080	1320	885 ^P	700 ^P				
Czech Republic		2110	4005	7355	8790	10095	8405	11400	5300 ^P	3590 ^P				
Denmark		3100	5700	6530	10345	12510	5945	4380	3235	2280				
Germany (including ex-GDR from 2002)		34355	58845	84775	75855	80285	71125	50585	33600 ^P	28910 ^P				
Estonia		0	25	25	5	10	10	15	10 ^P	10 ^P				
Ireland		2000	4620	7720	10940	10320	11035	7405	4265 ^P	4305 ^P				
Greece		1375	2850	1530	3085	5500	5885	8180	4470 ^P	9050 ^P				
Spain		4975	4935	8405	7925	9490	6310	5785	3385 ^P	5080 ^P				
France		14115	22375	30005	38745	47200	51085	59770 ^P	58548 ^P	49738 ^P				
Italy		1890	13100	18450	15195	17400	16915	13705	9630 ^P	9345 ^P				

http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search_database

The World Bank provides online access to the publication *Migration and Remittances* (2011), containing aggregated data by country, which includes numbers of immigrants and emigrants and their share in the resident population, as well as volumes of remittances in home countries and abroad, plus the share of remittances in a country's GDP.

Belarus		Lower middle income
Population (million, 2006)	10	10
Population growth (avg. annual %, 1992-2006)	-0.4	0.8
Population density (people per sq. km, 2006)	47	47
Labour force (million, 2006)	5	5
Urban population (% of pop., 2006)	72	72
Urban density (per sq. km, 2006)	9.2	9.2
Urban population (% of pop., 2006)	72	72
Poverty headcount ratio at national level (percentage of pop., 2006)	0.2	0.2

Migration, 2005	
Stock of emigrants	1,709,790
Stock of emigrants as percentage of population	16.4%
Top 10 destination countries	Russia, Ukraine, Poland, Lithuania, Kazakhstan, United States, Israel, Germany, Latvia, Estonia

Skilled migration, 2006	
Emigration rate of tertiary educated	3.0%
Emigration of physicians	18 or 0.04% of physician trained in the country

Immigration, 2006	
Stock of immigrants	1,150,944
Stock of immigrants as percentage of population	11.2%
Female as percentage of immigrants	57.8%
Kafupas as percentage of immigrants	0.1%
Top 10 source countries	Russia, Poland, Ukraine, Armenia, Lithuania, Azerbaijan, Germany, Moldova, Georgia, Latvia

Remittances	
US\$ million	2000 2001 2002 2003 2004 2005 2006 2007
Lowest remittance flows	139 149 141 232 254 378 324 344
Workers' remittances	- - - - - - - -
Compositional of employees	14 17 21 89 126 237 173 -
Migrant transfer	126 132 120 133 130 137 161 -
Outward remittance flows	58 77 68 65 82 94 93 ⁷ -
Workers' remittances	- - - - - - - -
Compositional of employees	2 1 1 1 1 1 0 3 -
Migrant transfer	56 76 67 64 81 94 90 -

<http://siteresources.worldbank.org/INTLAC/Resources/Factbook2011-Ebook.pdf>

The Söderköping Process Organization (on border cooperation between a number of European countries) for several years has regularly published the main data on border crossing and irregular migrants apprehended at the borders.

The screenshot shows the Söderköping Process website. The left sidebar contains a navigation menu with categories like 'About us', 'News', 'Thematic workshops', 'Senior Level Review Meetings', 'EU Policy', 'European Neighbourhood Policy Instrument', 'Legislation', 'Statistics', 'Local Integration of Refugees', 'Research/Publications', and 'Networks'. The 'Statistics' section is expanded to show data for Belarus, Estonia, and Hungary. The main content area displays a table titled 'Illegal Border Crossing' with the subtitle 'Number of foreign citizens apprehended at or in the border'. The table has columns for 'Country', '2006', '2007', 'I-VI', and 'Total'.

Country	2006	2007	I-VI	Total
Total	386	363	254	986
Stateless Persons	56	40	117	213
Moldova	77	56	18	151
Georgia	26	109	15	150
Azerbaijan	38	34	13	85
Kazakhstan	31	14	4	49
Armenia	10	16	14	40
Uzbekistan	14	11	10	35
North Korea	1	26	-	27
Kyrgyzstan	9	5	12	26
Kongo	12	5	6	23
Sri Lanka	5	5	19	23
Other	107	42	26	175

<http://soderkoping.org.ua/page12462.html>

Today, the Internet offers specialists opportunities that earlier were impossible. Users involved in migration issues should carefully study websites of international organizations and national statistical agencies. Very often, the migration statistics displayed are diverse and accompanied by a description of metadata.

11. Concluding remarks

Good results sometimes do not require much effort. Many simple but nevertheless important procedures — such as tabulation and publication of necessary statistics in convenient format and in different languages — do not require large investments or great efforts. They depend on competent persons who can make good decisions. Goodwill, along with comprehension of basic needs in migration statistics, can stimulate authorized persons to develop the content of websites, diversify administrative statistics, and more actively utilize available sources of data etc.

Users — researchers and practitioners — should always read attentively the paragraph on “methodology” that accompanies the published data they intend to use. Politicians, especially those dealing with legislation, can also apprehend the type of migration data they need for preparing new draft laws. In this way, new legislative documents will be more effective and better grounded.

What can be done at a national level and where can we start to improve national statistics?

- Define problems, arrange them by priority, and formulate suggestions.
- Give special focus to what improvements should be made to existing systems of data collection.
- Define what statistics are missing, and who may possess or collect the basic data and process them.
- Work out a programme for improving migration data.
- Determine a realistic period for its fulfilment.
- Learn from the experiences and practices of other agencies and countries.

Here are some of areas of work that may be relevant for many countries of Eastern Europe and Central Asia:

- More active utilization of administrative sources, provision of public access to data.
- Establishment of regular interactions and cooperation between the agencies with regard to data collection, storage and exchange.

- Organization of a representative sample survey and selection of a first–priority topic for it.
- Consultations with users to improve data and produced statistics.

A realistic approach to improving the situation might include, for instance, providing training courses for managers and officials responsible for the regulation of migration, politicians, and journalists. Promoting elementary statistical "literacy" in relation to migration statistics and advertising the practical importance of good practices will step-by-step change the situation for the better.

Modern technologies provide brand new opportunities in migration data collection, processing and distribution. Register-type systems and other similar systems of population registration need to be developed in order to start producing statistics based on these systems.

The attitude to administrative data must be changed. Migration statistics and related procedures (if not confidential or state secrets) must be treated as national assets. With the exception of the part of information exclusively intended for administrative purposes, other information — anonymized, and, if necessary for confidentiality purposes aggregated — should be available for users.

Metadata or the description of the sources and particularities of producing statistics must accompany any statistical publication. Even though we know that no perfect migration statistics exist, a knowledge of methodology helps in evaluating their quality and interpreting the numbers. Users themselves should be more curious and persistent when clarifying the nature of the data. If census or a survey results are used, the questionnaire should be available, as well as a description of the totality or methodology of selecting the sample. Data on migration collected through administrative systems should also be followed by concise explanations of the events and persons counted.

Legislation instruments — laws and by-laws — have a strong impact on statistics at all stages. They define the categories of migrants to be covered by statistics, the rules of dissemination of finished reports or access to personal information databases and many other issues that directly or indirectly affect statistics.

If there are unexpected or substantial fluctuations in migration data, all possible reasons should be investigated. These might include changes in legislation, changes in data collection rules, migrant status regularization campaigns or just changes to the workload, capacities or procedures of the agency making the basic registrations.

A compilation of data from different sources may be very fruitful both at national and international levels. Comparing NSO statistics and administrative data is a good way to check the quality and coverage of the data. Knowing the peculiarities of data collection helps us to understand the perspectives as well as limitations of comparison.

Work with data from international or foreign sources should become a good tradition of any user of migration data. Having an understanding of international practices broadens the outlook of both users and producers of statistics.

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13. Self-check questions

1. What are the main statistical categories used to measure migration?
2. Which are the criteria for defining migrants stock?
3. What is the peculiarity of the birthplace criterion for counting migrants in countries that used to be one state?
4. What are the methods of classifying migration by destination, duration, purpose, etc?
5. What are the international standards for defining long-term and short-term migration?
6. In what way is migration incorporated into a demographic balance equation?
7. What is the international standard for defining a place of usual residence?
8. What is net immigration and net emigration?
9. How do you calculate the main relative indicators of migration?
10. Name the main sources of migration data.
11. What questions concerning migration are included into the census programmes?
12. Name the primary administrative sources of migration data.
13. What kind of data related to migration one can obtain at the borders?
14. Name two types of sample surveys that can be used collecting migration statistics?
15. What types of migration statistics should each country have in order to be able to describe and analyse the migration situation?
16. What type of data will you apply to evaluate the completeness of emigration statistics in your country?
17. What websites of international organizations providing databases on migration do you know?

Statistics on International Migration A Practical Guide for Countries of Eastern Europe and Central Asia

Migration affects population dynamics, and its demographic, ethnic and religious composition. When speaking of migration we always deal with figures that help us evaluate the scale of migration and see more clearly in what way it affects countries of origin and countries of destination. But do we ever think about methods for collecting this data or about the difference between statistics of different countries or about the peculiarities of measuring such a complicated phenomenon as migration?

This *Practical Guide* is explaining many of the issues that are central for producing and understanding migration statistics. It focuses on the specific context of migration processes in Eastern Europe and Central Asia. The *Guide* is addressed to all those who are interested in migration statistics or deal with them professionally, including officials, statisticians, scholars and journalists.