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## International Migration Under the Microscope

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### Abstract

International migration affects all countries of the world. It is anticipated that in an increasingly interconnected world, migration will increase. People migrate for various reasons ranging from pursuing a better life to reuniting with families to escaping war and natural disaster. While progress has been made in understanding the drivers of migration, there is still much to be learned to monitor and predict migration flows. We do not know how many people leave their country to settle elsewhere, either temporarily or permanently, and we know little about these migrants. The impact of migration on the individual and on sending and receiving communities and countries is only partly understood. The economic effects can be very different from the impacts on society and culture. We advocate a comprehensive approach to the study of migration that involves (a) better measurement, (b) greater insight into factors and actors that either initiate migration flows or perpetuate and reinforce flows, (c) greater insight into the emergence of migration systems, i.e. systems linking people, families and communities in different countries, (d) greater insight into the consequences of migration for the individual, communities and society at large, and (e) much better performance in predicting migration flows and migrant characteristics. The lack of knowledge creates huge systemic risks and uncertainties and frustrates the formation of effective policies. In this contribution, we review what we know and what we should know. We conclude with priorities for data collection, research and training.

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### Migration: a fuzzy concept

Today, about 3.3 percent of the world's population lives in a country other than the country of birth (United Nations, 2015). In a world of 7.4 billion people, this amounts to 244 million people. If anything, the figure appears surprisingly low given the levels of inequality that exist amongst countries, the proportion of people in the world with a desire to emigrate, and the increase in number of countries over the past six decades (e.g. dissolution of Soviet Union and Yugoslavia). Since 2005 the relative number of migrants has been increasing, after a long period during which it remained stable around 2.9 percent. Wide variations exist between countries and regions. Foreign-born persons represent 0.1 percent of the population in China, 0.4 percent in India and 1.6 percent in Japan. The share is 8 percent in the Russian

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Federation and 14 percent in the United States and Western Europe. The largest proportions are in the Middle East (32 percent in Saudi Arabia, 34 percent in Lebanon, 41 percent in Jordan, and more than 50 percent in Kuwait, Bahrain, United Arab Emirates and Qatar) and the Caribbean. Small countries have a considerably higher share of foreign-born than large countries. As a result of migration, but also because of fertility decline, the share of foreign-born is increasing in many countries of the world. In OECD countries, the share increased by 38 percent from 2000 to 2010 (Arslan et al., 2014).

The foreign-born population captures lifetime migration to the host country. Lifetime migrants include those who arrived long ago as well as those who arrived only recently. It excludes those who returned to their home country. We do not know either how many people migrate in a given year. Using data on changes in foreign-born population and controlling for births and deaths, Abel and Sander (2014) and Abel (2016) estimate that, since 1960, the proportion of people who migrate over a 5-year period fluctuated around 0.65 percent of the population, except for a spike during the 1990–95 period. The sharp rise was related to the dissolution of the Soviet Union, the fall of the Iron Curtain and flows from countries that were experiencing armed conflicts. The main conclusion of the study was that, contrary to common beliefs, international migration has been low and stayed at a low level for decades. Although few people emigrate, many more desire to leave their country (see below).

Migration is a fuzzy concept and, in an increasingly connected world, it becomes increasingly difficult to distinguish between a temporary relocation and a migration. In 2015, 1.2 billion people traveled to international destinations around the world, 50 million more than in 2014 (UNWTO, 2016). The duration of stay ranged from one night to many years. According to the United Nations, a person who stays less than 12 months is a traveler. He or she is a migrant if the duration of stay exceeds 12 months. The UN introduced the 12-month criterion to make relocation statistics comparable across countries and in time. This golden standard hides short term mobility, while circulation is believed to be on the increase for at least two reasons. First, immigration countries are more and more attracted by schemes facilitating the circulation of temporary workers. Second, a small but growing number of people have multiple residences and multiple citizenships. Their economic, social and political life extends across borders of nation-states. These *transnationals* identify with communities in different countries and they challenge the traditional concept of state membership.

Traditionally, residence and citizenship were confined to a single country, usually for a lifetime. That has changed. Growing numbers of people operate in economic and social spaces that are not constrained by national borders. As a result, *home*, usual residence and domicile are fuzzy concepts. Traditionally, the concept of international migration has been tied to the concept of the nation state. International migration involves the relocation of one's usual residence beyond a national boundary. How states today perceive international migration is shaped by the Peace Treaty of Westphalia (Germany) of 1648, and upheld in the UN Charter. The Treaty reified the idea of sovereign nation states. Without that treaty, states would not have a basis on which to legitimate the limitations that most states place on human mobility (travel and migration) (Biersteker and Weber, 1996; Betts, 2011). Increased international mobility challenges the sovereignty of nation states. It also challenges state-run

social protection schemes, in particular the established eligibility criteria and the portability of accumulated social benefits.

Migration is part of a mobility continuum ranging from occasional travel to permanent relocation. Travel may turn into a long-term residence. People may enter a country on a visitor visa but fail to leave when their visa expires. That group is believed to represent a considerable proportion of unauthorized immigrants. In the United States, it is believed that 40 percent of the estimated 11 million unauthorized residents are persons who overstayed their visa. The widely cited statistic is from a 1997 report by the Immigration and Naturalization Service, which was later subsumed into the Department of Homeland Security<sup>1</sup>. Information on visa overstays is not collected because people leaving the U.S. are not required to register with immigration officials. An estimated two thirds of those overstaying their visa remain in the United States for more than one year (Government Accountability Office, 2013). In January 2016 the U.S. Department of Homeland Security estimated that 0.9 percent of the 45 million people who entered the United States in fiscal year 2015 overstayed their visa (U.S. Department of Homeland Security, 2016).

In a European Union proposal for the establishment of an Entry/Exit System (EES) to register third country nationals, the European Commission states that “reliable data on the number of irregular immigrants currently staying in the EU does not exist either. Conservative estimates of the number of irregular immigrants within the EU vary between 1.9 and 3.8 million. It is generally agreed that a clear majority of irregular immigrants are so-called visa overstayers, i.e. persons who have entered legally for a short stay, with a valid visa when required, and then remained in the EU when their authorised stay has expired.... only a small proportion of overstayers is apprehended” (European Commission, 2013).

## The desire to emigrate

Although few people emigrate, many desire to leave their country. A worldwide Gallup survey in 2005 among 750 thousand adults found that 14 percent of the world’s adults (15+) (630 million people) say they would like to emigrate if they could. Only 8 percent of them are planning to do so within 12 months and less than half of those planning to move have started making preparations (Esipova et al., 2011). That is less than 1 percent of the world population. Most people stay in what Esipova et al. call the *dream stage* and do not proceed to planning and preparation. Other studies confirm the surprisingly low level of migration. Nevertheless, we expect that migration will increase as more people manage to proceed from the dream stage to actual planning and preparation. The main reasons for migration are differential employment conditions in the world resulting from persistently low fertility in developed countries and high fertility in a several less developed countries, increased inequality between nations, and increased global connectivity resulting from improvements in communication and transportation technology and the growth and diversity of migrant networks. In addition, climate change and its sequelae may trigger elevated levels of migration, but we do not know (for example, see Fussell et al., 2014). Destination countries

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<sup>1</sup>See Pew Research Center (2006) for the background of the 1997 study and Warren and Warren (2013) for estimates of overstays from 1990 to 2010.

are likely to respond by imposing stricter border controls and subcontracting the control of migration flows to partners in origin and transit countries. A consequence of that response will be an increased securitization of migration, i.e. the development of migration into a security issue. The development is based on the assumption that international migration challenges public order and the rule of law and therefore justifies extraordinary means to control migration flows (Huysmans, 2000; Chebel d'Appollonia, 2012).

People relocate for a variety of reasons. Some migrate to escape poverty and threats. Others migrate to get access to quality education, employment, health care and amenities, or to join a partner, form a family or reunite the family. In countries without adequate social protection schemes, families often see migration of one or more family members as a means to diversity risk. Throughout history, mobility has been a risk management strategy. Migration is costly and risky. People with resources, including skills, have better opportunities elsewhere and are better equipped to take the risk and cover the costs<sup>ii</sup>. Risk-averse individuals, individuals with limited self-confidence (self-efficacy) and individuals and families in poverty are not likely to migrate voluntarily unless they join family and friends they trust. Migration is selective, but the selectivity fades as more people migrate and migrant networks are established.

Sometimes a migration triggers a chain of events. Students may apply for a scholarship and, once in a host country, decide to stay, either on their own initiative or in response to government policies aimed at retaining international graduates. Employment migration may trigger subsequent marriage migration, family reunification and other types of migration. A migration may also trigger an onward or return migration. Many immigrants stay a few years only before they move on or return to their home country (OECD, 2008).

Violent conflicts, natural disasters and other life-threatening situations trigger peak levels of migration. The UN Refugee Agency UNCHR estimates that, by the end of 2014, 60 million people had been forced to flee their homes because of war and persecution, compared to 37 million 10 years ago (UNHCR, 2015). Of these, two thirds were internally displaced persons and one third were refugees. Close to two million people were waiting the outcome of claims for asylum. The conflict in Syria generated an unprecedented magnitude of displaced persons. In mid-February 2016, more than half of the population of 22 million before the war were forced to flee their homes: 6.6 million persons are internally displaced and 4.7 million persons are registered as refugee, 2.6 million of them in Turkey and 1.1 million in Lebanon, a quarter of Lebanon's estimated 4.3 million native residents (UNHCR, 2016).

Migration generates benefits and costs, not only to the migrant and her family, but also to communities and countries. Remittances are among the most visible benefits. In 2014, migrants transferred \$583 billion to their home countries (World Bank, 2015). The flow of remittances to developing countries (75 percent of the total) is four times the annual official development assistance (ODA) of 145 billion. India, China, Philippines and Mexico are the top recipients of migrant remittances. Remittances as a share of GDP are larger in small

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<sup>ii</sup>Health workers represent a timely example. In 2010/11 the share of foreign-born among doctors in OECD countries was 22 percent, while that of nurses was 14 percent. Between 2000/01 and 2010/11 the number of doctors and nurses emigrating to OECD countries from countries with severe shortages in health workers grew by more than 80 percent (OECD, 2015).

economies, particularly in Central Asia, e.g. 49 percent in Tajikistan. To these countries the export of labor is a source of income and a strategy to reduce the population pressure. The socio-cultural diversity that comes with immigration is perceived as an asset to some (unleashing creativity and competition) and a liability to others (threat to cultural identity and social cohesion). Migration challenges established notions of cultural identity and social cohesion because it challenges two fundamental organizing principles of society: homophily and social influence. Homophily is the tendency of people to connect to others with similar characteristics (including values and beliefs) and similar background. It is the root cause of segregation and discrimination. Social influence is the tendency to alter one's opinions, attitudes and beliefs to more closely resemble those of influential others. Finding a proper balance between these two forces in the presence of migration is a major challenge.

## Research

Migration research is not very well equipped to address international migration in its complexity. The field is fragmented across disciplines and within disciplines. Economists, sociologists, geographers and political scientists use different theories and different approaches to the study of migration with little overlap. A comprehensive and coherent theory of migration that has both explanatory and predictive power is missing. Scientists have tried to overcome the fragmentation by seeking a theoretical synthesis involving migration experts from around the world and the support of the International Union for the Scientific Study of Population (IUSSP). The outcome was a book (Massey et al., 1998) that is on the required reading list of many students studying migration today. The search for a comprehensive and coherent framework continues. Innovative approaches shift the attention from push and pull factors to actors and social networks (Massey and Zenteno, 1999; Bonfiglio, 2012). Actors include individuals considering migration; significant family members, peers and leaders; individuals and organizations that are responsible for facilitating or inhibiting migration (e.g. governments, NGOs, private sector intermediaries). Actors have agency, i.e. an ability to collect information and act based on that information. Actions depend on available information but also on attributes, motivations and values. Actions also depend on what other actors believe, say or do; on institutions and organizations; on perceived barriers and other situational factors. Our understanding of migration flows and our ability to predict flows depend on identifying key actors and networks of actors, documenting the flows of information, resources, goods and services in the networks, and on accurate predictions of how actors respond to changes in situation or context and how they themselves contribute to changing the context. The approach to explanation that emphasizes actors, processes and emergence of patterns is *generative social science* (Epstein, 2007; Hedström and Bearman, 2009). Understanding migration means being able to reconstruct the chain of events and processes leading to migration and identifying the contexts in which the events and processes can occur. Agent-based modeling and simulation provide a technical infrastructure for generative social science (Klabunde and Willekens, 2016).

International migration research is severely handicapped by lack of data. The main sources of data on migration are population censuses, administrative sources including civil registration and residence permits, and sample surveys. The increased availability of census

data on foreign-born populations is an important step forward. For the monitoring and governance of migration, however, up-to-date flow data are needed. That requires (a) registration of international departures and arrivals, (b) data on duration of stay (intended at arrival and actual at departure), and (c) data on reasons for departure and arrival. In addition, data are needed on stayers and on the motivation to stay. Definitions and measurements of migration are not comparable across countries and in time, in part because of differences in data sources. Emigration data are particularly weak because departures are often not recorded. With arrivals being reported and departures not being reported, the immigrant population in a country is overestimated. The population census offers an opportunity to correct the figures, provided the census covers the entire population and census counts are reliable. For instance, the 2011 census of Germany revealed 1.5 million people missing, i.e. they were included in population estimates based on administrative data (population register) but they were not present at the time of the census. The lion's share were foreign residents who left Germany without notice. The census results thus led to a 15 percent reduction in the foreign population. The lack of data and the fact that media usually report arrival data but not departure data, especially for refugees, explains why public opinion polls reveal that in most countries people overestimate the immigrant population. Since public attitude to immigration depends on the *perceived* share of the immigrant population, data inadequacy shapes the public debate and ultimately the policy response. Another consequence of inadequate reporting of departures is the lack of information on citizens living abroad. Several countries express an interest in retaining qualified citizens and stimulate the return of emigrants, but lack the data for effective evidence-based policies. The data situation improved for OECD countries since the OECD in Paris started publication of data on (lifetime) immigrants and emigrants (expatriates) in OECD countries based on census questions on country of birth (Dumont and Lemaitre, 2005).

Harmonization of migration data and standardization of data collection methods are high on the agenda of international statistical agencies, working with national agencies. Harmonization requires mathematical models and the estimation of the model parameters from limited or defective data. A new emerging data source consists of geolocated data from online sources, such as social media and IP addresses. Zaghenei et al. (2014) use Twitter data to infer migration patterns. New data sources open new opportunities for mobility research but they do not necessarily produce comparable data. They are likely to increase the need for harmonization. Ultimately, data from multiple data sources should be combined to produce reliable data on migration and migrants. Censuses and administrative sources give stakeholders basic information on migrants and their characteristics, but they are not suited to study the causes and consequences of migration and the involvement of the various actors that help shape migration flows. That information can be obtained from population surveys, either through a module added to existing household or labor force surveys or through special migration surveys. A standardized World Migration Survey could be a most effective solution to the persistent data problem. Survey data can be particularly useful in the harmonization of migration data (Nowok and Willekens, 2010).

## Recommendations

We recommend that scientists and science policy makers:

- a.** *Invest in a comprehensive and coherent framework for the study of migration and mobility.* Research should be guided by a comprehensive and coherent framework that includes levels and trends, causes, consequences and governance. There is a huge need for research on the emigration decision, consequences of migration and intended and unintended consequences of migration policies and other social and economic policies. The framework should appeal to different scientific disciplines. A good point of departure is presented in Bonfiglio (2012), which is the report on a strategic workshop on migration research at the University of Oxford on the initiative of the European Science Foundation.
- b.** *Invest in training.* Institutions of higher education should consider the organization of interdisciplinary MSc and PhD programs in migration. These programs should also cover humanitarian and social protection of migrants and diversity policies.
- c.** *Invest in data collection.* The census is the dominant source of data on foreign-born population. Administrative data (e.g. population register, residence permits, arrival and departure data) can be used more effectively, provided they are made available and are adequately documented. Specific data on migration, migrants and non-migrants are collected through standardized modules added to existing surveys or through surveys dedicated to migration. We propose a World Migration Survey. The proposal endorses the IUSSP proposal of 2013 for a program of surveys on international migration. That proposal was inspired by the success of existing global programmes including the Demographic and Health Surveys (DHS) program and UNICEF's Multiple Indicator Cluster Surveys (Beauchemin, 2013, 2014). The proposed World Migration Survey should include respondents in countries of origin, transit and destination. The survey will be difficult to organize and will be expensive. Cheap alternatives do not exist, however. The expertise and experience for a World Migration Survey exist. In past years, migration surveys were organized that include both origin and destination countries. One survey was designed to understand Mexican migration to the United States (the Mexican Migration Project, Princeton University) and two surveys were designed to understand migration between Africa and Europe (the push-pull project executed by the Netherlands Interdisciplinary Demographic Institute, and the Migration between Africa and Europe (MAFE) survey executed by an international team under the leadership of the French National Institute for Demographic Studies (INED), Paris).
- d.** *Invest in standardization and harmonization.* Standardization of data collection procedures guarantee that new data are comparable. Harmonization of existing data relies on statistical models of migration. It frequently involves the use of data from different sources. Until 2007, in Europe it was not legally possible to use migration estimates as official statistics. In 2007, the European Parliament agreed on a legal framework for the use of mathematical models and statistical estimation methods in the production of official migration statistics. The US Bureau of the Census and other statistical offices regularly use models to produce estimates of migration.

- e. *Invest in a global migration information system.* The information system should include comparable data on migration, on migrants and stayers, on the causes and consequences of migration, and on the governance of migration. It should include a map of the world with elevated expected rates of forced and voluntary migration and expected destinations. Migration information systems that combine data from different sources already exist in SOPEMI (Continuous Reporting System on Migration, OECD), MISA (Migration Information System in Asia) and SIMA (Migration Information System of the Americas). Methods for combining migration data from different sources exist (Willekens, 1994; Raymer and Willekens, 2008; Raymer and Smith, 2010; Raymer et al., 2013). The information system should provide the evidence-base for migration policies. An option to be explored is to developed the system under the auspices of the Global Forum on Migration and Development (GFMD). This forum of high-level policy makers was established in 2007 to discuss policies, foster greater policy coherence at national, regional and international levels, and set priorities.
- f. *Invest in scientific evidence for diversity policies.* As a result of international migration, the populations in destination countries will become more culturally diverse (see e.g. Vertovic, 2007; Crul et al, 2013; Frey, 2014). Diversity policies promote the full participation of population groups in society (integration) and, in addition, turn diversity into a precious asset in a globalizing world. Inspiration may be derived from the extensive literature on opportunities, challenges and management of diversity in the workplace.
- g. *Invest in the dissemination of facts about migration.* The public debate on migration and migration policies benefit from facts. The evidence base should be comprehensive and include information on emigration and immigration, causes and consequences, distribution of benefits and costs, and intended and unintended effects of policies and other interventions, including the effects of the securitization of migration as a strategy to manage international migration flows.

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