Gender and Migration Data

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Guy J. Abel*

Abstract

Migration data, broken down by gender, allow us to gain a better handle on how gender affects the many dimensions of migration, and policymakers to begin to identify and address systematic gender inequalities related to migration. In this report we focus on two particular aspects of gender and international migration data. In the first part, we provide an inventory of sex-specific migration data collections that are currently available. In the second part, we utilise some of the collections in our data inventory to illustrate the global patterns and trends in sex-specific migration patterns where there are large imbalances in the migrant populations. We found limitations in the gender-specific details in multiple collections of migration data, which occurred most commonly in migration flow data and migration summarised by the origin and destination countries of migrants. These shortcomings can be better addressed in the future by extending National Statistical Offices’ methods of migration data collections to capture the gender identity and sexual orientation of migrants and include summaries of these dimensions in their published migration data.

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BACKGROUND

Gender is a major influential factor in all stages of international migration, where gender differentials are often apparent in aspirations and motivations of persons to move abroad, their migration pathways, choice of destination and their settlement experiences in their new host countries. In recent decades, gender-specific studies of migration have discussed a feminisation of migration, where female migrants moving abroad independently for work or education has occurred in greater numbers than ever before. This discussion has been accompanied by the calls for a better understanding of the migration experiences of women, men and other gender groups. There is a growing literature on the evidence of “double disadvantage” for female migrants, who on account of their sex and migration status are more likely to face discrimination or mistreatment in comparison to male migrants (Meghani, 2016). In particular, during irregular migration and asylum-seeking situations there is a pressing need for better protection and inequalities against gender-based violence and exploitation during migration transitions and settlements.

Without data to measure gender related differences throughout the different stages of migration, it becomes challenging for origin and destination societies to identify and address systematic gender inequalities related to migration. At the global level, gender-specific migration data is not always available or not up-to-date. The lack of gender-specific migration data is partly symptomatic of a general lack of migration data, which itself is a result of multiple factors, the most prominent being the difficulty and cost in compiling basic comparable data on international migration.

The need for gender-specific data, including migration data, has been a subject in a number of elements of international commitments such as the 2030 Agenda for Sustainable Development Goals (SDGs) and the Global Compact for Migration (GCM). The Sustainable Development Goals (SDGs), set up in 2015 by the United Nations (UN) General Assembly, are a universal set of goals underpinned by 17 goals and 169 indicators intended to be achieved by the year 2030. The SDGs seek to eradicate inequalities, with overarching aim of ensuring that no one is left behind. The fifth goal of the SDG is focused on gender equality where women and girls, everywhere, must have equal rights and opportunity, and be able to live free of violence and discrimination. Other SDGs goals also include gender in relation to different aspects of migration policies and governance. The GCM is UN global agreement that comprises of 23 objectives for better managing migration at local, national, regional and global levels. It includes a number of objectives on the collection and use of international migration data for use in evidence-based policies, including disaggregated data by sex, age, migration status and other characteristics relevant in national contexts.

In this report we focus on two particular aspects of gender and international migration data. In the first part we concentrate on providing an inventory of sex-specific migration data collections that are currently available. In the inventory we include summaries of basic migration data without sex breakdowns, where comparisons with the sex-specific data allows us to identify particular migration measures and statistics where there are short-falls. In the second part we utilise some of the collections in our data inventory to illustrate the global patterns and trends in sex-specific migration patterns where there are large imbalances in the migrant populations. We highlight the underlying causes behind the development of the largest imbalances and provide some
background behind their development and the current and potential consequences of the sex-specific inequalities.

**Box 1: Gender and sex**

International migration data published by national statistical offices (NSOs) usually include additional breakdowns to help users better understand the types of migration occurring and to better inform policy makers of the key processes taking place. One of the most common breakdowns of migration data are by demographic details such as age and sex, which often explain the largest sources of variation between persons migratory behaviour. The term sex, as used by migration data publishers, typically refer to the biological aspects of an individual as determined by their anatomy and assigned at birth, generally designated as male or female.

The term gender tends to be used in relation to behaviours and attributes based on labels of masculinity and femininity, and is identified from an internal perception of oneself. Consequently, the gender category that someone identifies with may not match the sex they were assigned at birth. An individual may identity as a man, a woman, as having no gender, or as having a non-binary gender – where people identify as somewhere on a spectrum between man and woman.

There is a growing need for data to be broken down by gender, to ensure no one is left behind, the key principle of the SDGs. However, in almost all countries that do produce migration data, do not publish gender-breakdowns. The shortfall is due to a number of reasons. Hennebry, KC, & Williams (2021) identified five key areas on gender gaps and data challenges that need to be addressed to create more comparable migration data with gender-breakdowns, including the need for expanded production and collection of sex- and gender-disaggregated data, gaps in data on the intersectional experiences of women and peoples with diverse gender identities, inconsistencies in types and frequencies of measurements, a lack of capacity in NSOs and data systems and challenges in relation to transiency, accountability and ethics in migration data. In addition, there is the possibility that data on gender identity, where collected accurately, may produce small migration counts where disclosure control procedures might prohibit data being provided. In the remainder of this report we will focus primarily on sex-specific migration data, due to the lack of gender related migration data currently available.

**DIFFICULTIES IN MEASURING INTERNATIONAL MIGRATION**

International migration can be quantified in many different ways. Two of the most typical measures are migration stock and migration flow data. International migrant stock data are counts of persons at a given time point who reside in a usual country of residence that is different to their country of birth. Migration flows are counts of population over a given time period that have changed their country of usual residence. Migration stock data are easier to collect than migration flow data. International migrant stock data are based at a fixed point of time, where data are obtained responses to questions on country of birth, typically from census, household registrations or surveys. In some counties, where questions on place of birth are not asked, responses to questions on country of citizenship are sometimes available and used to compile migrant stock data.
In data sources where migrant stock data are typically compiled from, responses to questions on sex are usually included as well and hence migrant stock data are often compiled and published with sex-breakdowns.

Migration flow data are comparatively more difficult to collect than stock data. Migration flow data provide a measure of the number of people who change their usual country of residence over a specific period rather a comparison with their country of birth or citizenship. The temporal (period) component of the migration flow measure requires that migrants need to be observed on multiple occasions in order to compile migration flow statistics. This added complication tends to result in far fewer countries providing migration flow statistics. Countries that do provide data use different lengths of stay in the definition of usual country of residence prohibiting effective cross-national comparisons. Additional definitional factors are also wide-spread in available migration flow statistics, such as the use of actual or intended duration of stay and the different data collection methods which provide varying levels of precision to the reported statistics.

In both migration stock and flow data, cross-national comparisons of data are further limited by differing levels of details in which reported statistics are provided by NSOs. At the broadest level, countries may only be able to provide data on the total migrant population at given time point, the total number of immigration or total number of emigration flows. More detailed statistics, such as bilateral data, where the number of persons migrating from or to a country are broken down by a set of origin or destination countries are not always collected or provide by NSO. As bilateral data link together two countries, they provide a more comprehensive empirical base to track and analyse migration patterns through origin destination corridors, that are masked by more aggregated migration measures such as total migrant population sizes or immigration flows.

EXISTING MIGRATION DATA INVENTORY

In recent years there have a handful of efforts to provide an inventory of migration stock and flow data. These can be broadly categorised into three groups; compilations on migration publications, visualisations of migration compiled from a range of data sources and in-depth data inventories.

Both the Knowledge Base\(^1\) of the European Commission's Knowledge Centre on Migration and Demography (KCMD) and the Migration Research Hub\(^2\) of the International Migration, Integration and Social Cohesion (IMISCOE) network have created web-based databases on a range migration publications. These include metadata on migration flows and stocks from a range of countries and organisations. Details on the coverage and breakdowns of the data available are relatively brief, where users are advised to consult the original source for detailed information. The International Organisation for Migration (IOM) GMDAC Migration Data Portal\(^3\) visualises migration stock and flow data, allowing users to select specific countries and view available data across a range of international databases. The Displacement Tracking Matrix\(^4\) of the IOM also provides a visual overview of the number of displaced persons. The last two editions of the IOM World Migration Report (in 2020 and 2022) have been accompanied by the publication

\(^1\) Available at [https://knowledge4policy.ec.europa.eu/migration-demography_en](https://knowledge4policy.ec.europa.eu/migration-demography_en)
\(^2\) Available at [https://migrationresearch.com/](https://migrationresearch.com/)
\(^3\) [https://gmdac.iom.int/global-migration-data-portal](https://gmdac.iom.int/global-migration-data-portal)
of interactive pages covering data on global migration, remittances and special topics such as COVID-19 restrictions. These compilations of migration publications and interactive visualisations bring together an immense amount of information on migration but are not directly intended for users to compare and combine migration data to view sex- or gender-specific migration patterns.

As part of broader projects, a number of academic groups in Europe have produced inventories of migration data most, that include details on available breakdowns of migration data by sex (among other characteristics). The Prominstat database was the first data inventory of European migrations data. More recently the REMINDER data inventory, the EMM Survey Registry and the QuantMig data inventory have been developed. Whilst the EMM Survey Registry is focused on national surveys on migration, the other data inventories cover reported statistics, estimates and large-scale cross-country surveys of European migration. Currently only the QuantMig project is still ongoing. At a global scale, Buettner, (2022) provides an inventory of migration flows, stocks and net migration sources with details on the overall number of records and countries.

GENDER AND INTERNATIONAL MIGRATION DATA INVENTORY

Within each of the previous and current data inventories the role of gender has not been at the forefront, whilst there has also been a general concentration on European flows for some. Hennebry et al. (2021) provided a broad overview of sex-specific data collections. However, there remains a need for a detailed overview of the migration data landscape with a concentration on sex and gender, to provide a picture of the scope of existing international migration flow and stocks datasets and to support users of migration data to quickly find relevant information on gender specific migration. In the remainder of this section, we list and discuss the characteristics of international migration stock and flow datasets with sex-breakdowns, providing summary statistics of the breadth and coverage of each.

INTERNATIONAL MIGRATION STOCK DATA

Table 1 provides details on the data sources for summary measures of international migrant populations from a range of organisations. The most complete data set on global migrant stocks is published by the United Nations Department of Social Affairs (UN DESA), who provide regular updates on the total migrant populations and sex-specific bilateral migrant stocks (UN DESA Population Division, 2020) (discussed later). Their data cover all UN member states from 1990 in five-year steps to 2020. Data are primarily based on records from censuses, nationally representative surveys and population registers provided by NSOs to UN DESA. Records are then adjusted to include refugee statistics not included in the primary data sources and to align to the mid-year time points using interpolation and extrapolations outlined in the UN

4 Available at https://dtm.iom.int/
5 Available at https://worldmigrationreport.iom.int/wmr-2022-interactive/
6 Available at http://www.prominstat.eu/drupal/?q=node/64
7 Available at https://www.reminder-project.eu/publications/database-of-existing-databases-on-migration-in-theeu/
8 Available at https://registry.ethmigsurveydatahub.eu/surveys
9 https://quantmig.eu/data_inventory/
DESA methodology documentation. Eurostat has two collections of migrant stock data, based on foreign born and non-citizen populations for over 30 countries in Europe and Central Asia (Eurostat, 2021). Data are provided by the NSOs each year to Eurostat and include breakdowns of female and male migrant totals for almost all countries. The UN Economic Commission for Latin America and the Caribbean (CELADE) provides data on international migration stock totals in 19 countries by sex, based the 1990, 2000 and 2010 round of censuses (UN CELADE, n.d.). Based on data from the 2000 round of censuses in more than 100 countries, the Organisation for Economic Co-operation and Development (OECD) developed estimates of emigration rates from all countries broken down by multiple characteristics including sex (OECD, 2019a) within their DIOC-E project. The OECD International Migration Outlook publications also regularly provides annual data on total foreign-born populations in its 37 member countries, primarily from population registers and large national representative surveys. Data in each update run for ten years and do not cover any sex breakdown. The International Labour Organisation (ILO) produces estimates of global migrant labour populations based on an estimation method to combine total migrant stock data from UN DESA with labour force participation rates from their collection of labour migration statistics. Country specific data are not made available, although their reports do provide regional summaries, including breakdowns by sex (International Labour Office, 2021). The ILO regional office of Asia and the Pacific provides two sex-specific data sets on total migrant stocks for ten countries of the Association of Southeast Asian Nations (ASEAN), one on the number of immigrants in the country and one on the number of nationals abroad. Totals are further broken down by education and labour force status (ILO Regional Office for Asia and the Pacific, n.d.).

Table 2 gives an overview of the data collections of bilateral international migrant stock data. Estimates published by UN DESA cover foreign born population between 232 countries with female and male breakdowns in each migrant corridor. The World Bank has published a number of data sets on bilateral migrant stocks. Estimates by Özden et al. (2011) cover over 200 countries for five censuses rounds between 1960 and 2000 and include sex breakdowns at each time point. More recent matrices of bilateral migrant stock data at single time points for 2010, 2013 and 2017 do not include breakdowns by sex. The OECD contains two databases on bilateral migrant stocks based on census data from its member countries. The DIOC data base includes data in four time points and includes many observations for different migrant populations by their place of birth, sex, age, education level and additional characteristics such as labour force status. The DIOC-E database expands on the number of destination countries based on data from non-OECD countries in the 2000 and 2010 census rounds. The Eurostat and UN CELADE data sets discussed above in reference to migrant totals also provide bilateral data by sex for many countries of birth, both within and outside their regions.

INTERNATIONAL MIGRATION FLOW DATA

There is a smaller variety of collections of sex-specific migration flow data in comparisons to the migrant stock data. A number of migration flow data estimates and collections include migration estimates without any breakdowns by sex. For example, UN DESA publishes data on net migration flows for all

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11 https://www.oecd.org/els/mig/dioc.htm
countries in each version of its World Population Prospects for each country (UN DESA Population Division, 2019). The OECD International Migration Outlooks also regularly publish total immigration and emigration flow statistics for its member countries without any sex-breakdown. In Table 3 are summaries of available data collections on total immigration and emigration flows that do include sex breakdowns. Eurostat provides totals for most European countries by sex, within their bilateral migration flow data sets. Data to or from each country do not conform to a single definition of migration flow, where countries tend to provide reported statistics according to the migration definitions used in each country based on the needs of the national governments and the design of the migration statistical systems. There has been a concentrated effort by the European Community to encourage NSO to provide migration data that can be more readily harmonised (EU, 2007). UN CELADE publishes flow totals by sex in the same files as their stock totals, where the flow totals exclude persons born in the country (i.e. return migrants). The ILO regional office of the Asia and Pacific publishes sex-specific immigration flow totals for five of the ten ASEAN countries.

In Table 4 we list the different collections of bilateral migration flow statistics by sex. Eurostat publishes three different sex-specific migration flow statistics, depending on the place of previous or next residence, country of citizenship and country of birth. Many European migration corridors are covered by both statistics on the number of migration flows entering the destination (receiving) countries and the number of migration flows leaving the origin (sending) country. Data reported by the receiving country, i.e. the immigration data, tend to be considered of better quality because of the necessary legal and administrative steps required of new migrants when entering new countries, where similar requirements are not always required for migrants when leaving. The UN CELADE provides sex-specific estimation of migration flows based on census data in the member countries. However, migration data by sex (and age) are only released for migration from origin countries with relatively large flows. The Determinants of International Migration (DEMIG) project undertaken at the International Migration Institute collated available sex-specific data for 34 reporting countries beginning in 1946 and ending in 2011 from digitized historical national statistics and electronic resources on bilateral data by sex into and out 32 and 29 countries respectively (DEMIG, 2015).

**FUTURE INCLUSION OF GENDER BREAKDOWNS IN MIGRATION DATA**

In none of the sex-specific data collections of the different publishers were there alternative data collections on gender-specific data. It the future, if commitments to the SDGs and GCM are met, countries may begin to produce migration statistics with gender breakdowns. When and how much migration data will be provided with additional gender breakdowns, beyond sex, is dependent on multiple factors, not least the extent to which governments explicitly incorporate gender when designing, implementing and monitoring polices. Hennebry, KC, & Williams (2021) provide a five-point scale of gender-responsiveness in migration data, ranging from gender-biased, where data that produce and reproduce stereotypes against women and gender-diverse migrants, and exclude their experiences through to gender-responsive where data production is guided by principles of gender equality and human rights, and used to monitor and modify policies towards responding to gendered experiences of migration and addressing gender inequality. International organisations are working to encourage national governments towards more gender-responsive migration data. The United Nations Secretary General’s Data Strategy, 2020-2022
United Nations, 2020), a UN system wide evaluation and future pathway for making better use of the data of all its organisations, notes the lack of sex- and gender disaggregated data contributes to a gender data gap that it pledges to address. The IOM Migration Data Strategy 2020 – 2025 discusses the need to increase the availability and access to migration data with quality gender indicators (IOM, 2020).

Hennebry et al. (2021) also proposed a set of five steps for governments to implement a gender responsive approach to migration data. In the first step, governments and their NSO must consider the categorization of gender and how to formulate gender-responsive policy to guide migration data collection and use. This might include the innovative methods including combining quantitative and qualitative approaches and using non-traditional data sources to capture a broad range of opinions across gender to feed into policies. In a second step, governments can integrate ethical considerations into migration data collection, including ensuring the privacy during data collection and the separation of data collection with data obtained from access to services. In a third step, investment in data infrastructures are required to build capacities, including budgets to allow NSOs to coordinate gender responsive data and the training for data users to become more responsive to newly generated gender data. In a fourth step, the collection and use of sex- and wherever possible gender-disaggregated migration is suggested, whereby governments can facilitate access to the data and adhere to internationally coordinated collection and distribution methods. Finally, the adoption of a whole-of-society and whole-of-government approach in data collection, analysis, and evaluation, and use gender responsive data is encouraged to inform migration policy and practice.

SEX-SPECIFIC MIGRATION TRENDS AND PATTERNS

During the 19th and early 20th centuries, international migrants were largely composed of economic migrants and colonial settlers. In earlier periods, settler colonizers had a relatively balanced sex composition. However, between 1840 and 1920 the global labour migrant population became more male dominated as empires grew and increasing levels of international trade demanded temporary male workers to build infrastructure and work on plantations and in heavy industries (Donato & Gabaccia, 2015). During the 1920s, an increased regulation of immigration in many countries pushed global migrations toward a balanced sex distribution of migrant population. National laws increasingly restricted male-dominated labour migration and hence women and families became a larger share of the immigrant population.

In 1960, where the first estimates of global migrant population by sex are available for, women comprised 46.6 per cent of foreign migrants (Zlotnik, 2003). One common narrative from the academic migration scholars has been the feminisation of international migration during economic globalisation over the last few decades. This is reflected in number of female migrants that has almost tripled in the past 60 years, rising from 46 million in 1960 to 135 million in 2020. However, this increase has been accompanied by a larger rise in the number of male migrants, an expansion of the number of countries and general increase in the level of global population. These trends are reflected in the global migrant stock data from UN DESA shown in Figure 1, where both sex-specific migrant populations have risen during the past years, with a greater relative and nominal difference between the female and male migrant populations in 2020 than in previous years. Nevertheless, during this period there has been a great change in the sex differences and migrant populations in particular regions and nations, and the migrant corridors that they traverse. In addition, the causes and consequences of the migration sex differences has also shifted over time and
varies substantially across cultures and countries. This has brought the study of the role of gender to greater prominence in migration studies, where theoretical formulations of gender as relational, and as spatially and temporally contextual are informing gendered analyses of migration (Donato, Gabaccia, Holdaway, Manalansan IV, & Pessar, 2006).

Figure 1. International migrants by sex 1990-2020. Percentages in white reflect the sex-specific shares of the global migrant total in each year. Data from UN DESA (2021).

In Figure 2 we display the share of male and female migrants in the World (in the top left panel) alongside the seven World Bank regions. In 2020, just under half (48.1 per cent) of all international migrants worldwide were female. There was a slight reduction in the share of women and girl migrants during the 2000s. The slightly larger number of male migrants at the global levels is a partly a reflection of the higher share male international migrant workers, at 99 million or 58.5 per cent, compared to 70 million or 41.5 per cent of female migrant workers in 2019 (International Labour Office, 2021). In most regions, the number of male and female migrants in 2020 was roughly equivalent. In Europe & Central Asia and Northern America, the number of female migrants slightly exceeded that of male migrants while in sub-Saharan Africa there were larger numbers of male migrants. In the Middle East and North Africa, the number of male migrants has far exceeded their female counterparts, where only 34 percent of migrants were female in 2020.
The comparative growth of female migrants in recent years, seen in Northern America and parts of Europe, is due to a number of factors. The migrant populations in these regions tend to be older than elsewhere due to migration policies that have encouraged migration and allow permanent settlement and family migration. Consequently, the role of longer female life expectancies extend to increase the relative sizes of older female migrant groups. In many Western countries, an increasingly ageing population and changes in labour force participation rates of native populations has led to a demand for workers in healthcare (Barone & Mocetti, 2011; Farris, 2015); see Box 2 on foreign trained nurses in Europe. Similar increases in the demand for female workers has also been evident in wealthier countries across Asia, where many migrant women are concentrated in jobs regarded as low-skilled such as domestic workers, entertainers and hostesses, restaurant and hotel staff and assembly-line workers in clothing and electronics (Castles, 2014; ILO (Regional Office for Asia and the Pacific), 2016).

Immigrant populations in the Middle East and North Africa have been predominantly male since 1990. In the Middle East, the share of male migrants has risen steeply over the past thirty years, driven by demand in the countries of the Gulf Cooperation Council (GCC) for labourers in industries such oil and gas and construction. This demand outpaced demand for female migrants in the same countries in other areas such as domestic workers (Shah, 2012). In addition, employers of male labour migrants in GCC
countries tend to use temporary labour migration contracts, where females are unable to accompany their male spouses. The scale of the male dominated migrant populations in the GCC countries are vast, where the rapid increase during the 2000s feed the drop of female share of migrants at the global level during the same period. Despite the relative small scale of the female migrant workforce in these countries, they make a 46.8 percent of all female workers in Arab States (International Labour Office, 2021). In North Africa and Sub-Saharan Africa, the excess number of male migrants are the result of moves within the continent, where men have traditionally migrated alone to pursue employment opportunities. This trend has been tempered by the increasing willingness for females in Africa to migrate for work or study and larger female African refugee populations compared to males (Mixed Migration Center, 2018).

*Figure 3. Female and male shares of migrants born in each origin region between 1990 and 2020. Based on data from UN DESA (2020).*

More distinct regional differences between female and male shares of migrant populations are apparent when viewing the regions of birth (rather than the regions of residences) of international migrant populations. In Figure 3, the sex-specific shares of emigrants born in each region are shown over the past thirty years. In each origin-region there are clear separations in the male and female shares, where migrants from Sub-Saharan Africa, Middle East and North Africa and South Asia have been predominately male since 1990. Male migrants from South Asia in particular have risen steeply, as a share of all migrants from the region during the last 30 years, many working in countries of the
GCC. In 2020, migrants born in South Asian countries and living in GCC countries were part of some of the most male-dominated migrant population groups in the world (see Figure 4). Workers in these countries provide remittances to their families and communities which comprise an important source of funds for economic development in their home countries. Male migrants from conflict-affected and neighbouring countries of refuge, such as Afghanistan (and neighbouring Iran and Pakistan), are also more prominent after outbreaks of violence and because of the extreme risks involved in undertaking dangerous (irregular) migration; see Box 3 on gender dimensions of Afghan migration.

Female migrants born in Europe and Central Asia, East Asia and Pacific, Latin America and Caribbean and North America are consistently higher than the male shares. The larger shares from these regions are partly a result of higher female labour force participation rates in these regions compared to elsewhere. The rise in females moving aboard for work can have substantial impacts on family dynamics and communities in the places of origin. For example, female migrants from South-East Asia working as domestic workers in developed countries often are abroad for long extended periods, where their children left behind are cared for by their grandparents, acting as surrogate parents (Dolbin-MacNab & Yancura, 2018). Females from countries such as the Philippines and Indonesia make up some of the most female-dominated migration corridors in the world, such as migrant populations in Hong Kong, Singapore and the United Arab Emirates (see Figure 5). There has been a long history of nurses from the Philippines moving to the USA, where the female migrant population is one of the largest in the world (Guevarra, 2010). Canadian immigrants in the USA include many highly educated professionals, students, those seeking family reunification, and retirees attracted by warmer southern climates. The female Canadian migrant population in the USA has built up over a long history and has consistently outnumbered the Canadian male migrant population (Israel & Batalova, 2021).

In some European population, such Italy and Spain, migrant women from Eastern Europe make up a large share of care workers for their elderly population. In parts of East Asia, there has also been rise in the female international migration for eldercare and marriage migration, especially in rural areas where there considerable gender imbalances in the native populations (Estévez-Abe & Caponio, 2022). Marriage migration has resulted in high shares of both Indian female migrants in Nepal and Nepalese female migrants in India, influenced by an open border, long-established social network, similar sociocultural settings of the northern Indian states of Bihar and Uttar Pradesh and the Terai region of Nepal, and a common practice of endogamy (marrying within the same caste group) preventing intermarriage between members of different castes (Bashyal, 2020; Hausner, 2007; Sah, 2008). The UN DESA data in Figure 5 also reveal a high share of females in Bangladesh that were born in China, Indonesia and the Philippines. Migrants from these countries have been instrumental in helping develop the Ready Made Garment (RMG) industry in Bangladesh, where over 70% of workers are females. Migrants from these countries are employed in wide range of technical and non-technical roles in foreign run RMG manufactures, sometimes without proper work permits. However, very little research has been carried out on these migrant groups, including the sex distribution (“Aspects of foreign employees in Bangladesh textile and RMG industry,” 2017).

A number of foreign born populations in Turkey also have high shares of females. Iraqi migrants have arrived in Turkey large numbers since the late 1980s, including many Kurds, Turkmen and Christians (Daniş, 2006). Iraqi women have been more likely to remain in Turkey, where male counterparts have tended to either stay or migrate back to Iraq or transit onwards to work in countries further afield (Içduygu, 2000). Female migrants have come to Turkey from a number of
Eastern Europe countries, including many ethnic Turks from Bulgaria, who found employment in the domestic work sector and married Turkish husbands (Akalin, 2007; Parla, 2007). German born migrants come from a range of backgrounds, many of whom are German citizens of Turkish origins. Married German migrants in Turkey are overwhelmingly female (Kaiser, 2015).

Figure 4. Top 20 male dominant migrant corridors in 2020. Ordered by share of male migrants, where the size of the male migrant population of the migrant corridor exceeds 10,000 persons. Data from UN DESA (2020)
Figure 5. Top 20 female dominant migrant corridors in 2020. Ordered by share of female migrants, where the size of the female migrant population of the migrant corridor exceeds 10,000 persons. Data from UN DESA (2020)
Box 2: Foreign-trained nurses in Europe

The demand for nurses in Europe is driven by socio-demographic changes including low fertility rates, longer life expectancies and thus an ageing population. Securing a strong health workforce is critical to maintaining population health, and all European countries require effective workforce planning strategies to respond to these swift changes (Kuhlmann et al., 2018). Nursing professionals are among the most widespread occupations in Europe experiencing a shortage in 2020 (European Union 2020). Current shortages in the health workforce may be caused by austerity policies which can lead to fewer numbers of health workers employed and worsening work conditions (Kuhlmann et al., 2018). One strategy to ameliorate the shortage of nurses has been the recruitment of foreign-trained nurses.

Many foreign-trained nurses reside in countries with existing large populations of skilled migrants such as Switzerland and Luxembourg (OECD, 2019b). In Switzerland, many foreign-trained nurses come from nearby countries like Germany and France (OECD, 2019b). The recognition of medical credentials obtained within the EU has allowed for the mobility of medical students across EU countries (OECD, 2019b). Though this is seen as a positive, there is a growing concern about the maldistribution of health workers across the EU (Kuhlmann et al., 2018). Migrants will often choose to live and work based on the individual societal profile of countries, where there are social benefits, quality education, better training and employment opportunities and better working conditions (Drennan & Ross, 2019). In the last decade, countries like Belgium, France, and Germany have also seen a rapid increase of foreign-trained nurses with countries in Southern, Central and Eastern Europe reporting the lowest shares of foreign-born health workers (OECD, 2019b) and lower shares of domestically trained health workers compared to the total workforce (Hervey, 2017; Eurostat 2020). Freedom of movement within the European Union also contribute to this care deficit, as the intra-EU mobility of care workers Westward, often to neighbouring countries on a temporary and circular basis, is prevalent (Hervey, 2017; see also Blower, 2022).

However, despite a general increase in foreign-trained nurses, experts caution that it may not be sufficient to meet the demand for health workers. For example, in future projections on the supply and demand of health workers in OECD countries, experts predict that despite having a large share of foreign-trained nurses (over 10 per cent in 2015), Switzerland is projected to have a considerable nursing shortage in 2030 (Scheffler & Arnold, 2019). It is observed that the current rate of migration among foreign-trained nurses will not be adequate to prevent future shortages (Scheffler & Arnold, 2019). Thus, scholars have called for concentrated workforce planning to address the shortage of health workers through increased efforts around recruitment and retention, which not only includes training and retaining younger nurses but also meeting the needs of older and migrant nurses (Ryan, Bergin, White, & Wells, 2019). Even prior to the pandemic countries were putting strategies in place to address the shortage of labour in the sector in the long-term. For example, the ‘Concerted Action on Nursing Scheme’ (Konzicentre Aktion Pflege) introduced in 2018 by the German government which identifies five areas for attracting and retaining nurses, including higher pay, recruitment outside of the country, health promotion and digitalization, additional trainee nurses and emphasizing a needs-driven approach to staffing care facilities (German Federal Government 2019). The shortage of nurses is recognized as a critical policy issue in comparison to the retention of physicians which is less pronounced, thus it is clear that fair compensation, career opportunities, and quality and secure working conditions must be improved in order to effectively retain nurses (Winkelmann et al., 2020).
The demand for nurses in Europe heightened during the COVID-19 pandemic. Various initiatives were put in place to address the shortages in the health workforce, including extending hours of work, moving workers from part-time to full-time work and cancelling leaves of absence (Williams et al., 2020). To support foreign-trained health workers in the short-term, countries in Europe responded by reducing language requirements and waving credential recognition exam fees (Williams et al., 2020). Other policy interventions included extending work visas, allowing health workers to cross otherwise closed borders, and removing working hour restrictions among international students (Williams et al., 2020). Though such initiatives are short-term solutions, the sector demonstrated adaptability and innovation. As such, strategies toward the recruitment and retention of foreign-trained nurses can be strengthened building on these efforts observed during the COVID-19 pandemic.

**Box 3: Gender dimensions of Afghan migration**

International migration is an important source of social and economic upward mobility in Afghanistan, and it features a high level of gender imbalance in favour of men and boys that is deeply connected to gender roles and social norms. Migration from Afghanistan to other neighbouring countries has become a masculine 'rite of passage' for some communities (Monsutti, 2005, 2007), and this practice has extended beyond the immediate region to also feature in migration journeys to Europe, South-East Asia and Australia (McAuliffe, 2017). The highly uneven gender patterns in irregular migration from Afghanistan reflect social norms but also the extremely dangerous irregular migration routes (including maritime travel) that must be undertaken in order to reach distant destinations (see Figure 6). Most families and communities would invest in men and particularly in youth to undertake this highly hazardous form of migration as a long-term survival strategy, involving intergenerational aspirations (McAuliffe, 2017).
Young men able to make the journey could then facilitate the migration of families including the women to join later mostly through family reunion and regular pathways. However, for many women who might be at severe risk of rights violation, social and structural discrimination and violence the opportunities to escape are limited. Many observed, for example, that the historic evacuation of Afghans after the fall of Kabul in August 2021 was disproportionately used by men as an opportunity to leave the country (Sohege, 2021). Further, unaccompanied women and girls constitute an extremely small proportion of the migration flows from Afghanistan (Hosseini & Punzi, 2022; IOM, 2019). Women and girls are much more likely to undertake the safer regular migration through family reunion and third country resettlement compared to irregular migration. FIRST time asylum application statistics show that less than a quarter of made in Europe were by females (Eurostat, 2022)

CONCLUSION

Migration data, broken down by sex, allows us to understand differences between male and female migration patterns and migrant populations. They mark a first step towards gaining a better handle on how gender effects the many dimension of migration, and allow policymakers to begin to design effective programs based on good quality and reliable data. As shown in our data inventory, migrant stock data collections tend to contain more comprehensive sex-disaggregated data, where some migration flow data collections tend to be limited in geographic or temporal scopes. In addition, sex
specific data tend to be more widely available for migrant population and migration flow totals in comparisons to more detailed bilateral data.

There remain a number of limitations to the quantitative analysis of the role of gender in migration using migrant stock and flow data. Data sets of global migrant stocks are reliant in many countries on data from censuses many years ago. In some countries, there have not been censuses or censuses that include migration questions, for many years. For these countries, data publishers such as UN DESA or the World Bank have estimated migrant population sizes in order to quantify global migration where there are lack of alternative data sources to validate their estimates against. Migration flow data are scarcer and the available data are not always comparable due the range of definitions used. These limitation are further exacerbated for sex breakdowns of both stock and flow data.

In order to address gender-specific migration issues, further breakdowns of migration data, in combination of sex, are required. For example, bilateral data on asylum and refugee patterns published by UNHCR or remittance data published by the World Bank do not include information on sex, which can prohibit analysis to possibly detect gender-driven inequalities and forces data users to assume males and females have similar migratory experiences.

The lack of gender breakdown in all the data collections we covered in this report is due to the lack of collection methods to capture gender identity and sexual orientation by data producers of migration data, usually NSOs. The incorporation of these dimensions need to be carefully operationalised at all stages between the data collection and publication in order to protect the security and well-being of sometimes marginalised persons whilst adhering to the “Leave no one behind” principle at the core of the SDGs for 2030.
**Table 1: Data sources on total migrant stocks**

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<th>Title</th>
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<th>Data sources</th>
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<th>Countries and territories</th>
<th>Obs. (Total)</th>
<th>Obs. (Female)</th>
<th>Obs. (Male)</th>
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<td>Populations censuses, registers and surveys</td>
<td>Foreign born population</td>
<td>1990 to 2020 in five-year intervals</td>
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### Table 2 Data sources on bilateral migrant stocks by sex

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