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# ► ILO Global Estimates on International Migrant Workers

International migrants in the labour force  
Fourth edition



# ▶ **ILO Global Estimates on International Migrant Workers**

International migrants in the labour force

Fourth edition

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First published 2024



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## ► Preface

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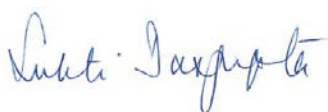
International migrant workers make an important contribution to economic growth and development in their countries of destination, while their countries of origin can gain significantly from the remittances they send and the new skills of returning migrants, acquired during their work abroad. Yet, the migration process has been increasingly complex in terms of ensuring the protection of international migrant workers, strengthening migration and development nexuses, and fostering effective international cooperation.

The ILO works to promote policies and measures that allow for international labour migration to become a choice rather than a necessity and to the benefit all those involved. To support the effective governance of international labour migration, it is crucial to prioritize the production of data that views migration through the lens of development and human and labour rights.

The ILO remains committed to supporting countries in building their capacity for collection and analysis of labour migration data, covering topics important to the promotion of decent work. The ILO has invested heavily over the past few years to expand the global availability of national data through its International Labour Migration Statistics (ILMS) database with the collaboration of Member States. The ILO will continue to support countries in data collection and dissemination and would like to extend its gratitude to Member States for reporting data to enable more robust estimates and higher levels of granularity.

Drawing on the ILO's ILMS database, this fourth edition of the *ILO Global Estimates on International Migrant Workers: International Migrants in the Labour Force* presents the most recent estimates of the stock of international migrant labour force, based on an improved methodology, and – for the first time – of the stock of employed and unemployed international migrants, disaggregated by age, sex, country income group and region. These estimates do not include international migrant workers who travel abroad for short periods at a time, such as seasonal workers and cross-border workers – an important group but for whom statistics still remain very scarce.

The periodic publication of this report provides key information on recent developments in international labour migration on a regular basis and aims to raise global awareness about the valuable contributions of international migrant workers and the challenges they encounter, and to shed light on the value of data to support evidence-based policymaking at national, regional and global levels.



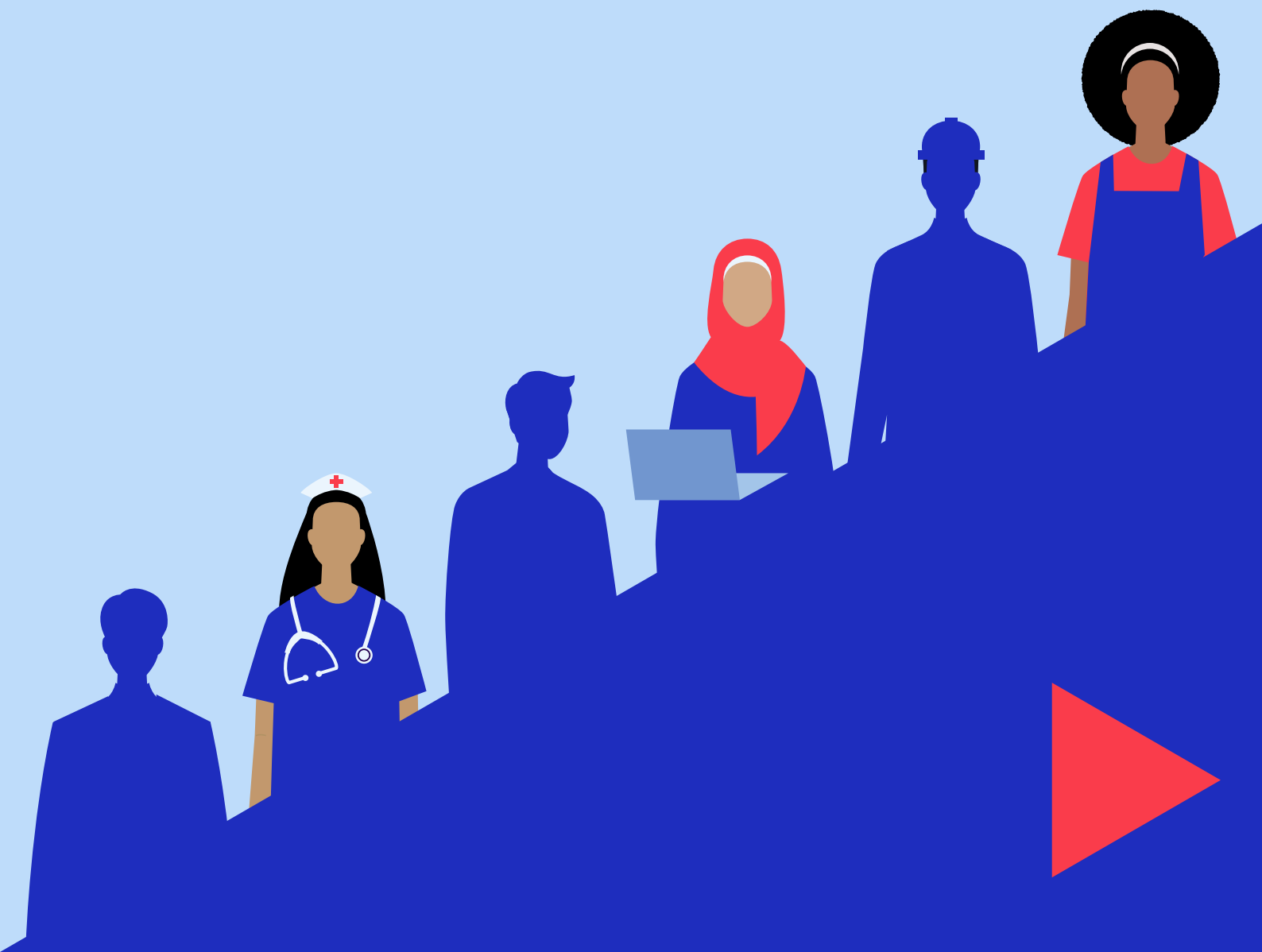
**Sukti Dasgupta**

Director  
ILO Conditions of Work and Equality Department



**Rafael Diez de Medina**

Director  
ILO Department of Statistics



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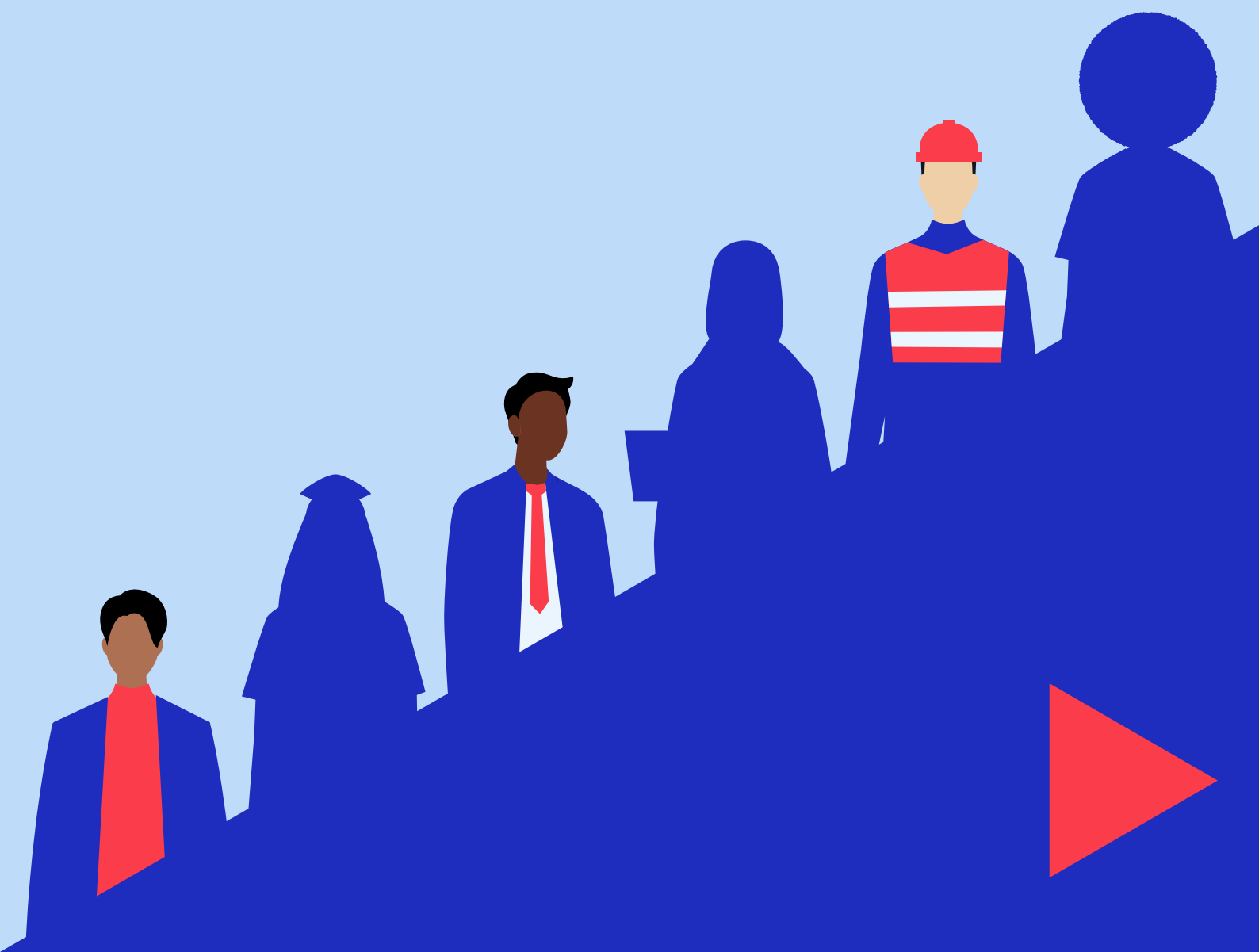
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## ► Abbreviations

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<b>HALE</b>	healthy life expectancy
<b>ILMS database</b>	International Labour Migration Statistics database
<b>ISIC</b>	International Standard Industrial Classification of All Economic Activities
<b>LFPR</b>	labour force participation rate
<b>LFS</b>	labour force survey
<b>UNDESA</b>	United Nations Department of Economic and Social Affairs



This report would have not been possible without the strong support of Manuela Tomei, ILO Assistant Director-General for Governance, Rights and Dialogue, Sukti Dasgupta, Director of the ILO Conditions of Work and Equality Department, and Rafael Diez de Medina, Chief Statistician and Director of the ILO Department of Statistics.



► Executive summary

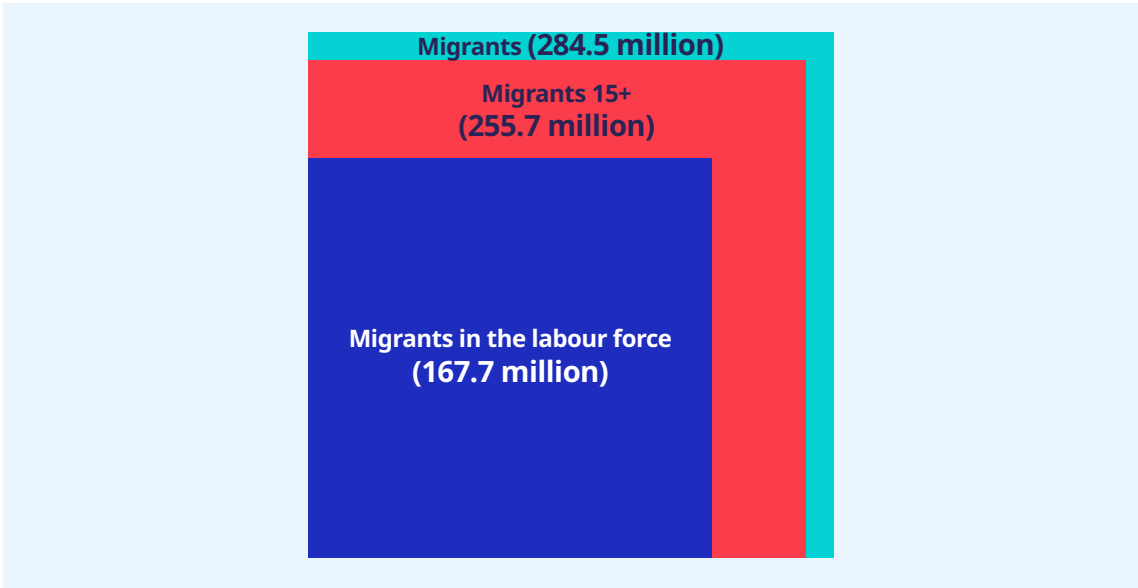
**In 2022, the ILO estimates that there were 167.7 million migrants in the global labour force**

The global stock of international migrants reached 284.5 million in 2022, with 255.7 million of them of working age (15 and over) (see figure ES1). In the same year, the number of international migrants in the labour force, defined as international migrants who are employed or unemployed, was 167.7 million – over 30 million more people

than in 2013. Among those, 155.6 million were employed and 12.1 million were unemployed (see figure ES2).

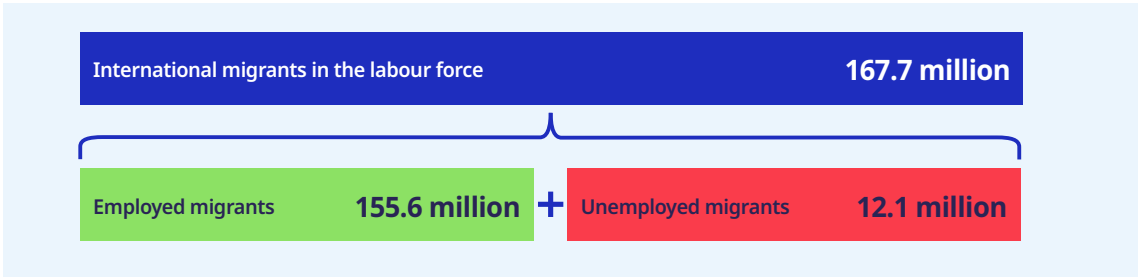
Growth was higher from 2013 to 2017 and from 2017 to 2019, when the number of international migrants in the labour force increased annually by an average of 3.5 per cent and 2.5 per cent, respectively. From 2019 to 2022, however, the rate of growth slowed down to less than 1 per cent annually, which could be attributed to a number of factors, including the COVID-19 pandemic.

► **Figure ES1. Global estimates of the stock of international migrants and international migrants in the labour force, 2022 (million)**



Source: ILO estimates.

► **Figure ES2. Global estimates of international migrants in the labour force, 2022 (million)**



Source: ILO estimates.

## International migrants represented 4.7 per cent of the global labour force

International migrants represented 4.3 per cent of the global working-age population (aged 15 and over) in 2022 and accounted for 4.7 per cent of the global labour force. While the number of international migrants in the labour force increased over time, their share among migrants of working age remained stable, at around 66.1 per cent in 2013, 67.1 per cent in 2017, 66.8 per cent in 2019 and 65.6 per cent in 2022.

## At 102.7 million, the majority of international migrants in the labour force were men, compared to 64.9 million women

Women constituted 38.7 per cent of international migrants in the labour force, while 61.3 per cent were men (see figure ES3). Lower representation of women among international migrants in the labour force can be attributed to their slightly lower share among the total migrant population (48.2 per cent) and lower labour force participation rates.

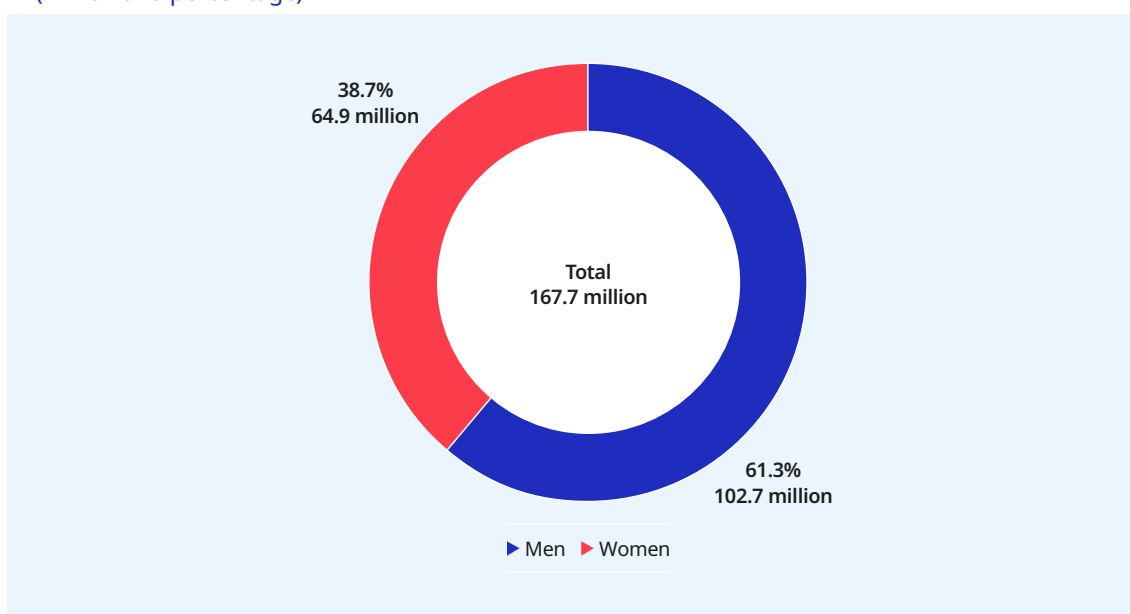
## Migrant men and women had higher labour force participation rates than non-migrants in 2022, but with significant variations across income groups and regions

Migrants had higher labour force participation rates than non-migrants globally, 65.8 per cent and 60.1 per cent, respectively (see figure ES4). Many migrants move primarily for economic reasons, seeking better job opportunities and higher wages. This strong economic drive often translates into higher labour force participation. In addition, some countries have immigration policies that favour skilled workers or those who already have job offers, which can lead to higher labour force participation among migrants. However, it should be noted that the labour force participation rate of migrant women (52.8 per cent) is lower than migrant men



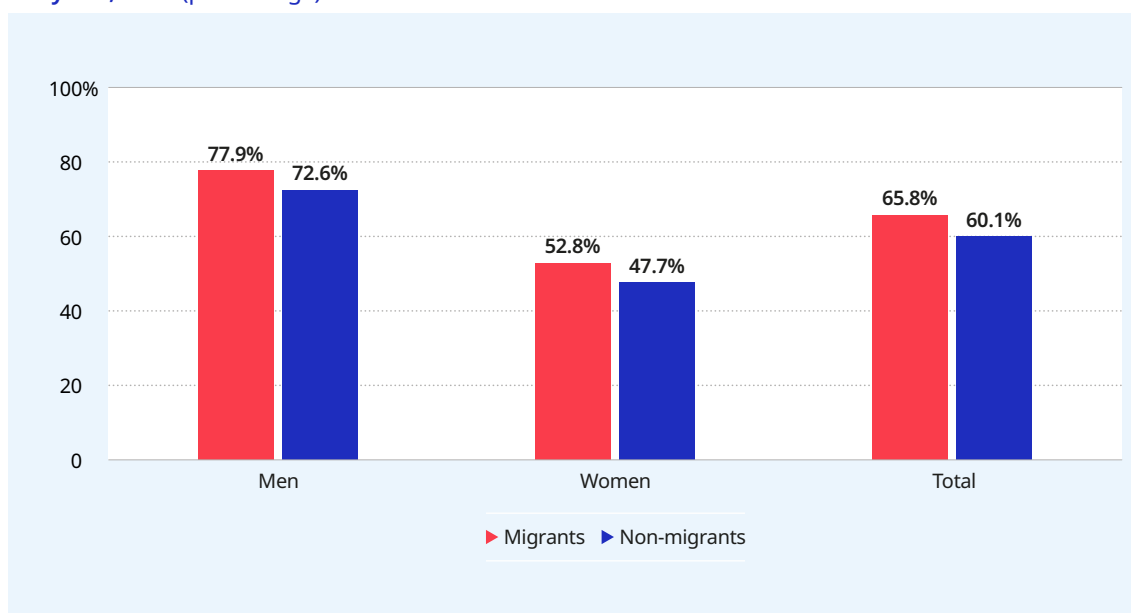
Women constituted 38.7 per cent of international migrants in the labour force, while 61.3 per cent were men.

► **Figure ES3. Global distribution of international migrants in the labour force by sex, 2022**  
(million and percentage)



Source: ILO estimates.

► **Figure ES4. Global labour force participation rate of international migrants and non-migrants by sex, 2022 (percentage)**



Source: ILO estimates.

(77.9 per cent). Structural barriers, socio-cultural factors and discriminatory practices in labour markets hinder the employment opportunities of migrant women to a greater extent compared to men. Moreover, labour force participation of migrant women was below non-migrant women in low-income and upper-middle-income countries as well as in the regions Eastern Europe, Northern America and sub-Saharan Africa.

### Most international migrants in the labour force were prime-age adults, and age distribution remained consistent over time

At 125.6 million in 2022, prime-age adults (aged 25–54) constituted the vast majority of international migrants in the labour force for both men and women. There were 15.5 million young international migrants in the labour force (aged 15–24), 20.9 million aged 55–64 and 5.7 million aged 65 and over.

Youth accounted for 9.3 per cent, prime-age adults for 74.9 per cent, people aged 55–64 for 12.5 per cent and people 65 and older for 3.4 per cent of the global stock of international migrants in the labour force (see figure ES5). The high representation of prime-age individuals

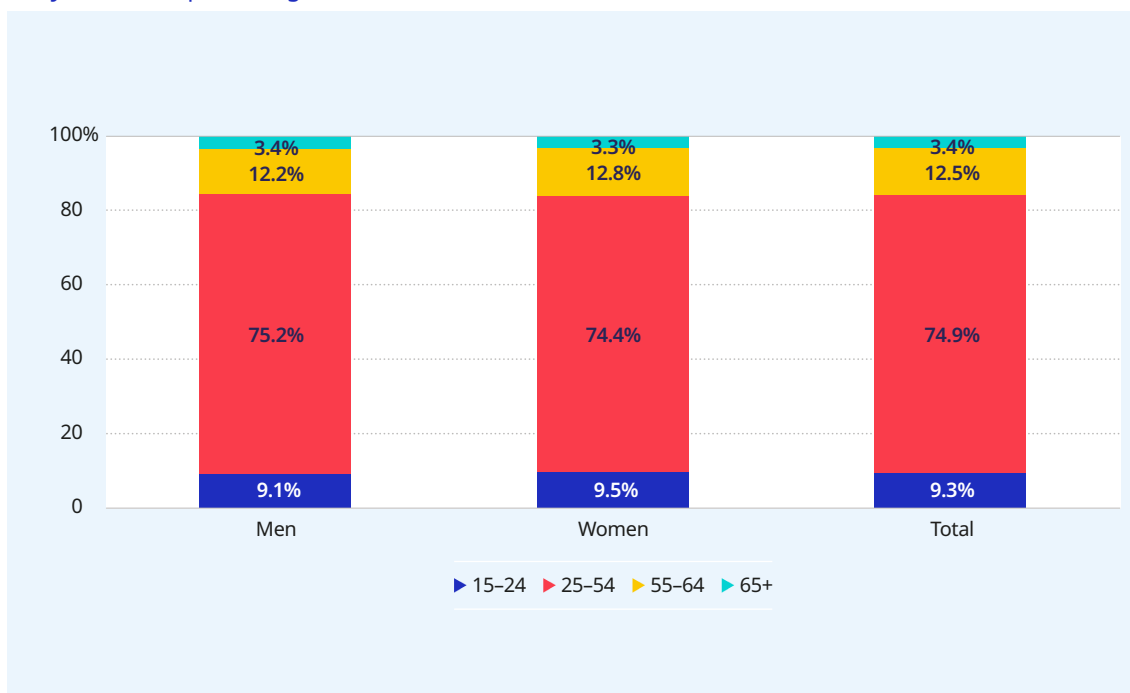
among international migrants in the labour force is consistent with global trends and may be attributed to migration policies favouring skilled and experienced workers.

Over time, the proportion of young people among international migrants in the labour force fluctuated, falling from 10.2 per cent in 2013 to 8.7 per cent in 2017, and increasing to 9.3 per cent in 2022. Regionally, young men international migrants in the labour force had higher representation in South-Eastern Asia and the Pacific, Latin America and the Caribbean and sub-Saharan Africa. The same held true for young women international migrants in the labour force.



Prime-age adults (aged 25–54) constituted the vast majority of international migrants in the labour force, at 74.9 per cent in 2022.

► **Figure ES5. Global labour force participation rate of international migrants and non-migrants by sex, 2022 (percentage)**



Source: ILO estimates.

## The majority of international migrants in the labour force were concentrated in high-income countries

The significant majority of international migrants in the labour force were concentrated in high-income countries, which accounted for 68.4 per cent (114.7 million), followed by upper-middle-income countries at 17.4 per cent (29.2 million) (see figure ES6). The higher living standards and labour market opportunities in these countries offered strong incentives for migrants to relocate there. In contrast, 10.9 per cent (18.2 million) and 3.3 per cent (5.5 million) of international migrants are in lower-middle-income and low-income countries, respectively. Between 2013 and 2022, high-income

and upper-middle-income countries remained the primary destinations for international migrants in the labour force.

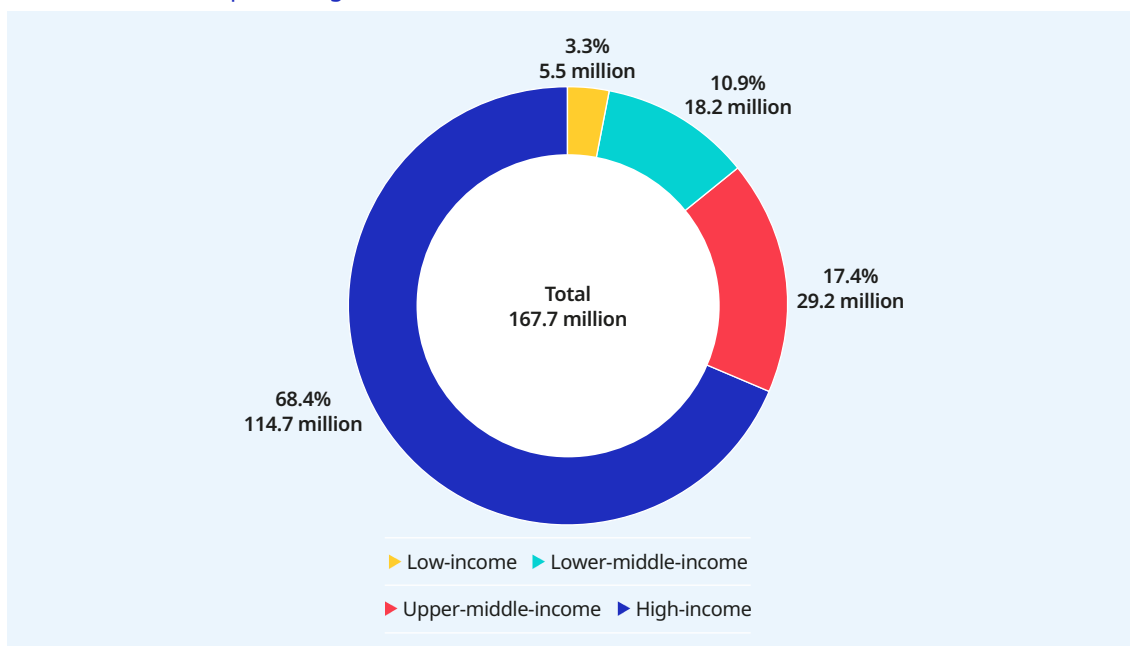
## Three subregions continued to host the majority of international migrants in the labour force in 2022: Northern, Southern and Western Europe, Northern America and the Arab States

The share of international migrants in the labour force in Northern, Southern and Western Europe increased slightly between 2013 (22.5 per cent) and 2022 (23.3 per cent), which could partly be due to changes in migration policies to accommodate labour market demands (see figure ES7). In Northern America, the proportion of international migrants in the labour force decreased over time from 23.8 per cent in 2013 to 22.6 per cent in 2022, which could be the outcome of the nature of immigration policies over the years. In the Arab States, there was a slight decrease in the percentage of international migrants in the labour force from 13.8 per cent in 2013 to 13.5 per cent in 2022.



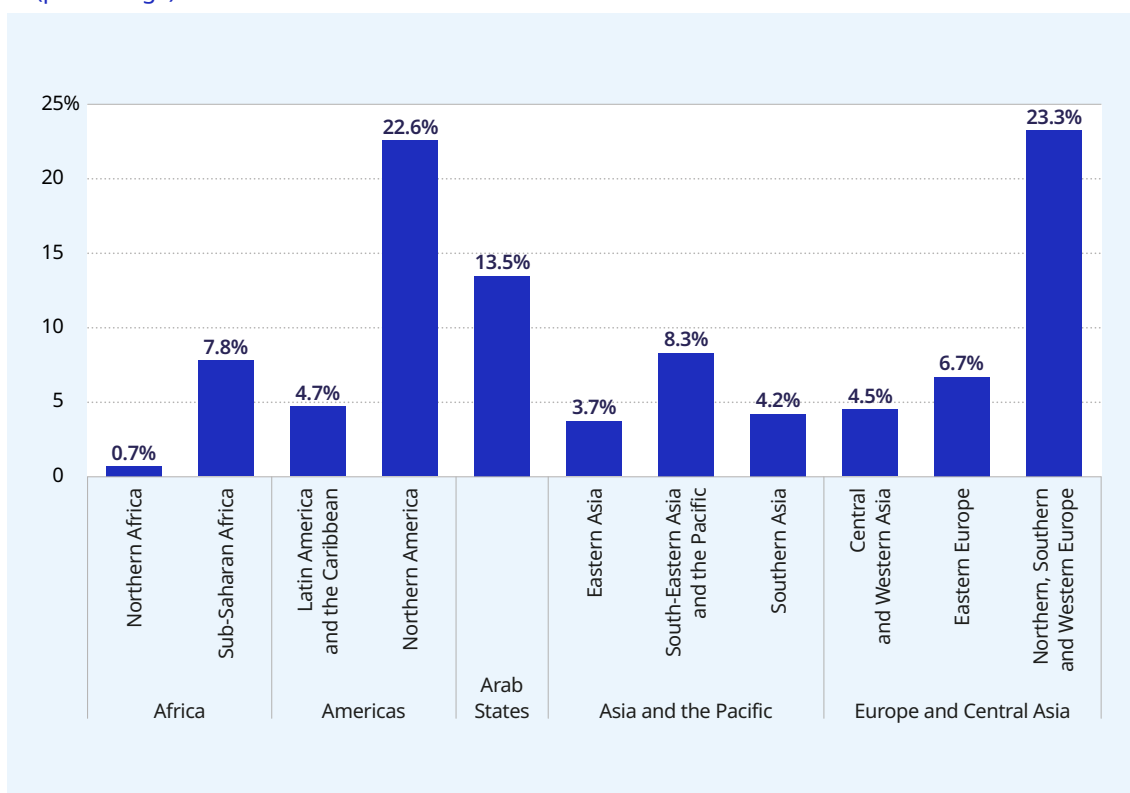
High-income and upper-middle-income countries remained the primary destinations for international migrants in the labour force.

► **Figure ES6. International migrants in the labour force by income level of destination country, 2022 (million and percentage)**



Source: ILO estimates.

► **Figure ES7. Distribution of international migrants in the labour force by broad subregion, 2022 (percentage)**



Source: ILO estimates.

## 155.6 million international migrants were employed in 2022

In 2022, 155.6 million international migrants, which represented 60.9 per cent of all international migrants of working age, were employed in 2022 (see figure ES8). Migrants exhibited higher employment-to-population ratios for both sexes, compared to non-migrants, meaning that a larger share of the migrant population aged 15 and over was employed, compared to non-migrants. This ratio increased until 2019 and slightly decreased in 2022.

The overall rise in the number of employed migrants and increasing employment-to-population ratios from 2013 to 2019 indicate that more migrants were able to find jobs abroad. One factor contributing to this trend could be the impact of ageing populations in high-income countries. Migrants frequently fill labour market shortages in destination countries, particularly in sectors such as agriculture, care and construction. The decrease in employment observed in 2022 could be partially attributed to the COVID-19 pandemic.

The proportion of employed international migrants in the population evolved differently across ILO regions between 2017 and 2022. It slightly decreased from 62.7 per cent to 59.9 per cent in Africa, and this could be attributed to challenges destination countries in this region face

absorbing migrants into their labour markets. The employment-to-population ratio remained relatively stable in the Americas. It fluctuated in Asia and the Pacific and Europe and Central Asia with an initial increase in 2019, and a subsequent decrease in 2022. In the Arab States, the ratio increased from 64.2 per cent to 67.3 per cent between 2019 and 2022. This may be attributed, among other factors, to an increased demand for migrant workers in certain sectors of the region, particularly in the context of post-COVID economic recovery.

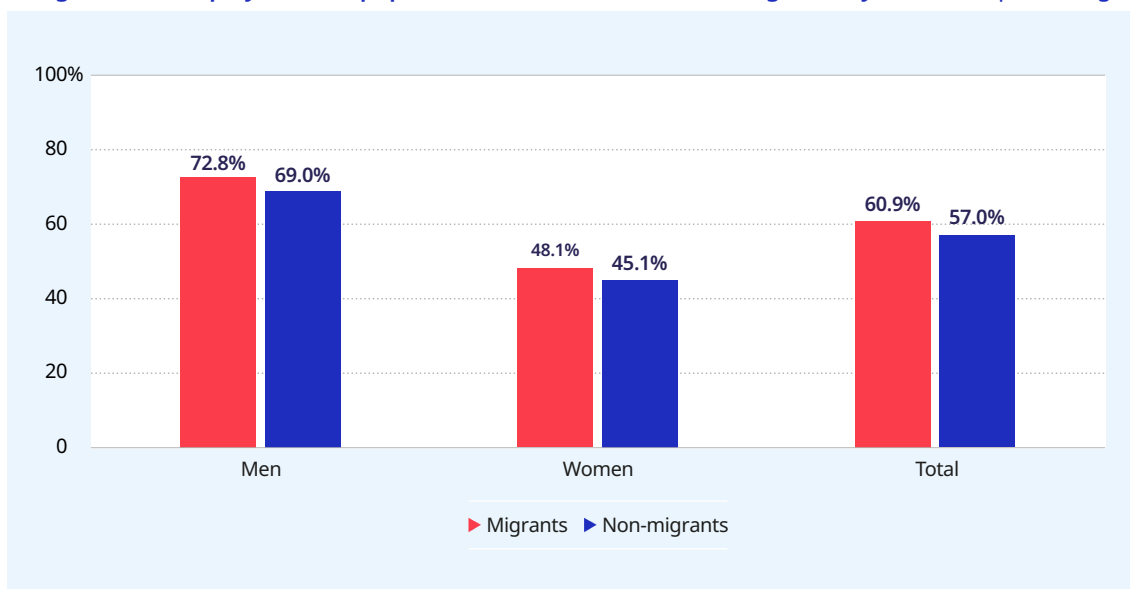
## Most employed international migrants were concentrated in the services sector

In 2022, 80.7 per cent of employed migrant women were in services, compared to 60.8 per cent for employed migrant men (see figure ES9). The corresponding figures for non-migrant women and men were 59.4 per cent and 46.3 per



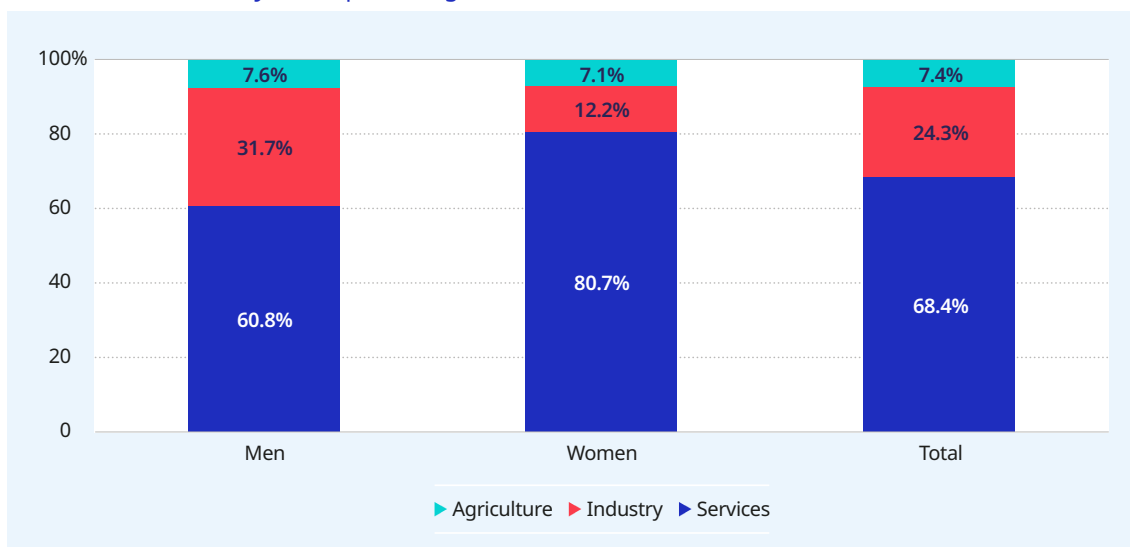
The high concentration of employed international migrants, especially women, in services could be due to the important global demand for care and domestic work.

► **Figure ES8. Employment-to-population ratio of international migrants by sex, 2022 (percentage)**



Source: ILO estimates.

► **Figure ES9. Distribution of employed international migrants by sex and broad category of economic activity, 2022 (percentage)**



Source: ILO estimates.

cent, respectively. Over time, the dominance of the services sector remained relatively stable, with the share of migrants employed in services at 68.9 per cent in 2013, 68.4 per cent in 2018, 67.0 per cent in 2019 and 68.4 per cent in 2022. The high concentration of employed international migrants, especially women, in services could be due to the significant global demand for care and domestic work. Many destination countries face ageing populations, fuelling the demand for healthcare and domestic services. The share of men and women migrants, employed in the care economy in 2022 was estimated at 12.4 per cent and 28.8 per cent, respectively, compared to 6.2 per cent of non-migrant men and 19.2 per cent of non-migrant women.

### The unemployment rate for international migrants in 2022 was higher than for non-migrants

In 2022, the unemployment rate for international migrants was 7.2 per cent, compared to 5.2 per cent for non-migrants (see figure ES10). Possible factors contributing to higher unemployment among migrants include language barriers, the lack of recognition of foreign qualifications and the presence of discrimination. Furthermore, the unemployment rate for migrant women (8.7 per cent) was higher than for migrant men

(6.2 per cent), reflecting gender-specific challenges, such as more limited labour market opportunities, the lack of childcare facilities and greater responsibility for unpaid care work, which may hinder their employment prospects. In addition, the influence of socio-cultural norms and gender expectations, both in their origin and destination countries, can further exacerbate the employment limitations faced by migrant women.

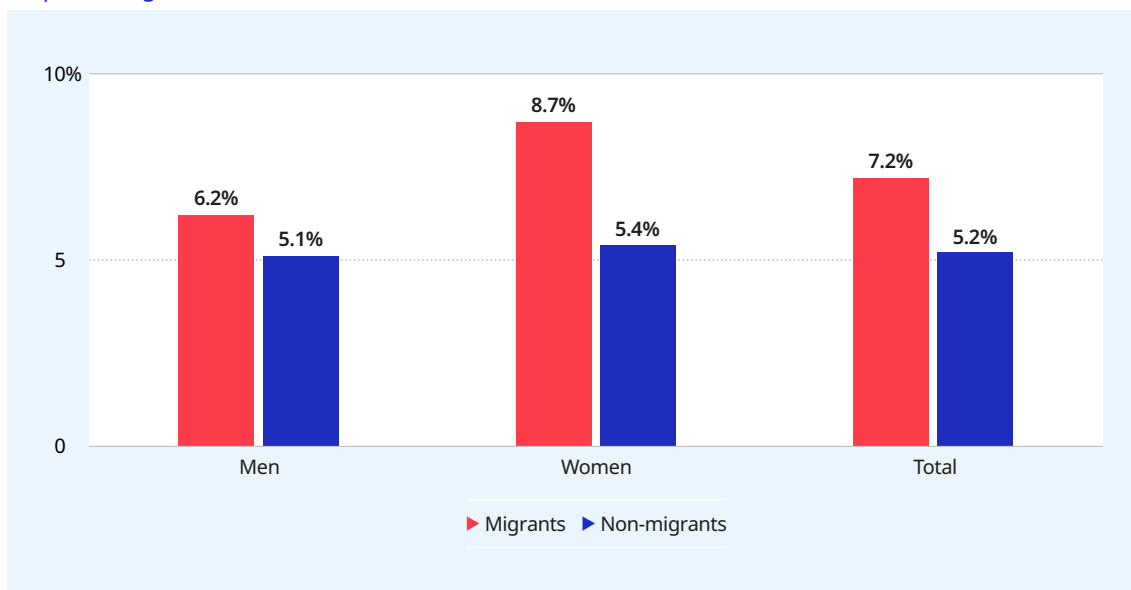
Africa experienced a decline in migrant unemployment rates between 2017 and 2022 from 12.3 per cent to 11.4 per cent. Over the same period, Europe and Central Asia experienced a decline from 11.2 per cent to 6.2 per cent. In the Arab States, the same pattern was observed between 2019 and 2022, when migrant unemployment rates fell from 13.6 per cent to 8.2 per cent.

In the Americas, the unemployment rate of migrants remained stable. In the region, employment growth was quite robust, keeping the unemployment rates low in general. In Asia and the Pacific, a notable fluctuation in migrant unemployment rates was



In 2022, the unemployment rate for international migrants was 7.2 per cent, compared to 5.2 per cent for non-migrants.

► **Figure ES10. Unemployment rate of international migrants and non-migrants by sex, 2022**  
(percentage)



**Source:** ILO estimates.

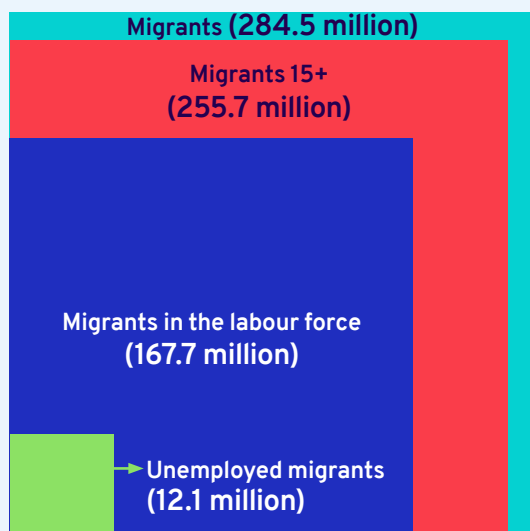
observed, with a sharp decrease between 2017 and 2019 followed by a significant increase in 2022. The unemployment rate of international migrants in this region can be partially attributed to the COVID-19 crisis and associated job losses in sectors

such as tourism that were hit hard. These sectors predominantly employ international migrants, and it has been estimated that job losses in tourism-related sectors were four times greater than in non-tourism sectors.

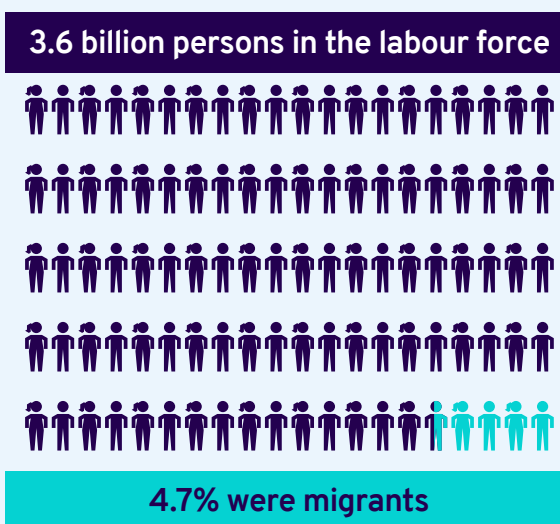
## Figures at a glance

In 2022, 167.7 million international migrants actively participated in the labour force of their destination countries

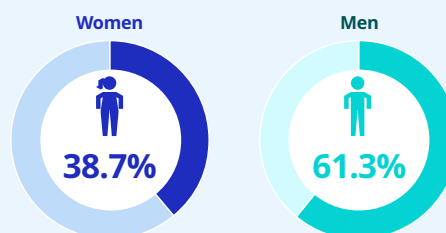
- ▶ Among them, 155.6 million were employed and 12.1 million were unemployed



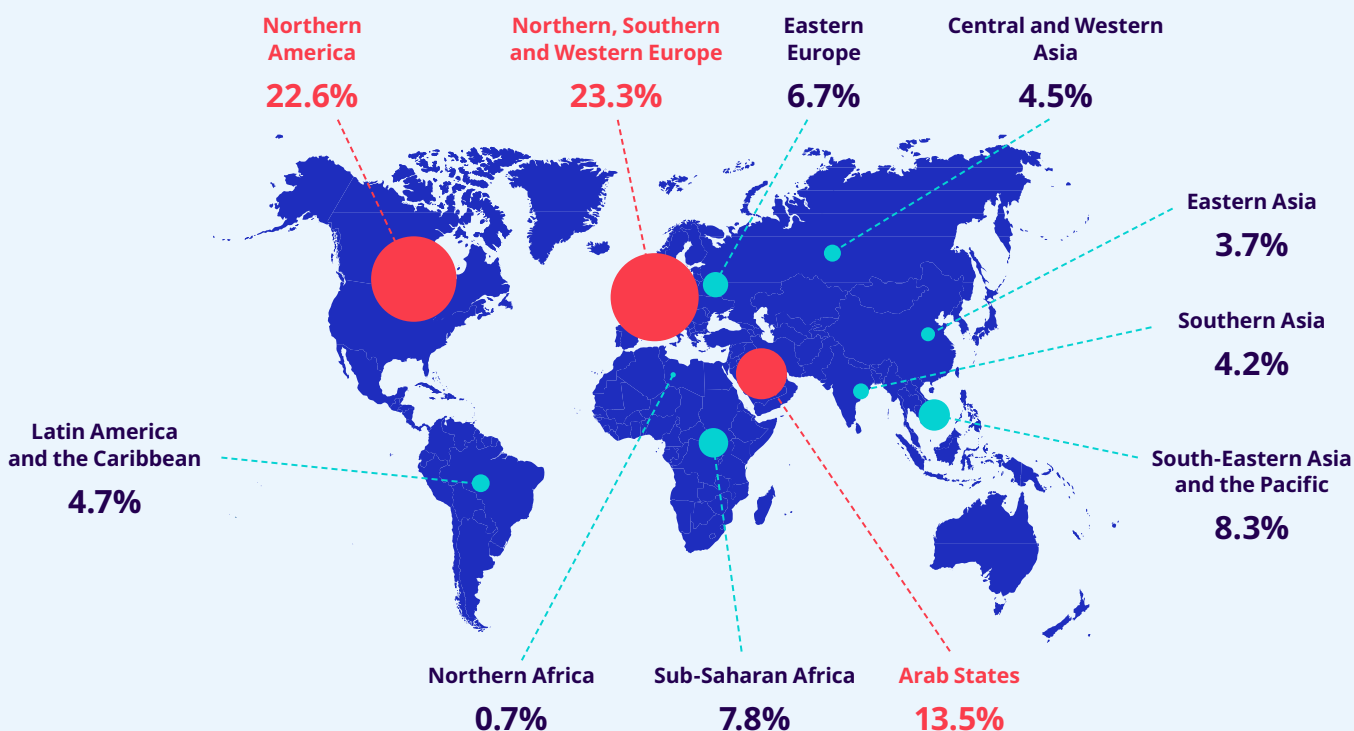
- ▶ International migrants made up 4.7 per cent of the global labour force



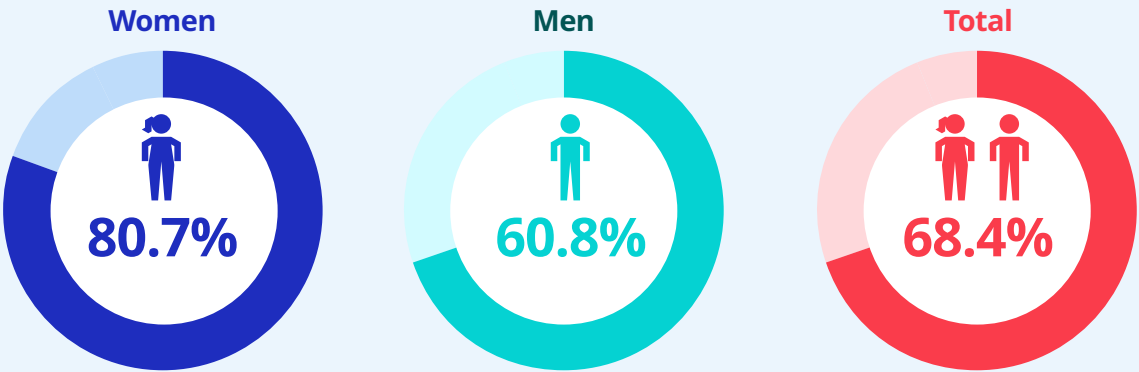
- ▶ Among international migrants in the labour force, 102.7 million were men and 64.9 million were women



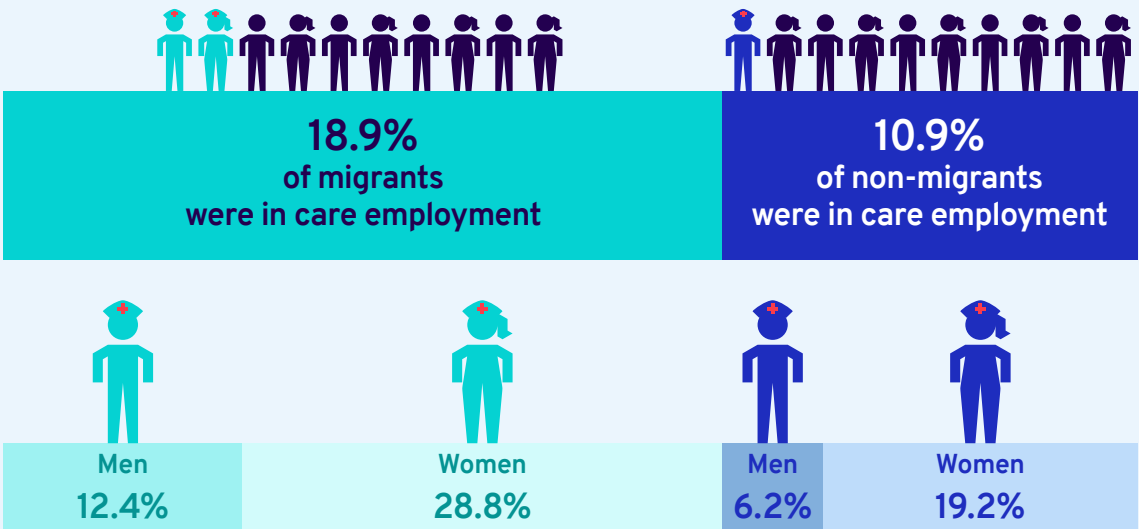
- ▶ Three subregions host the majority of international migrants in the labour force: Northern, Southern and Western Europe, Northern America and the Arab States



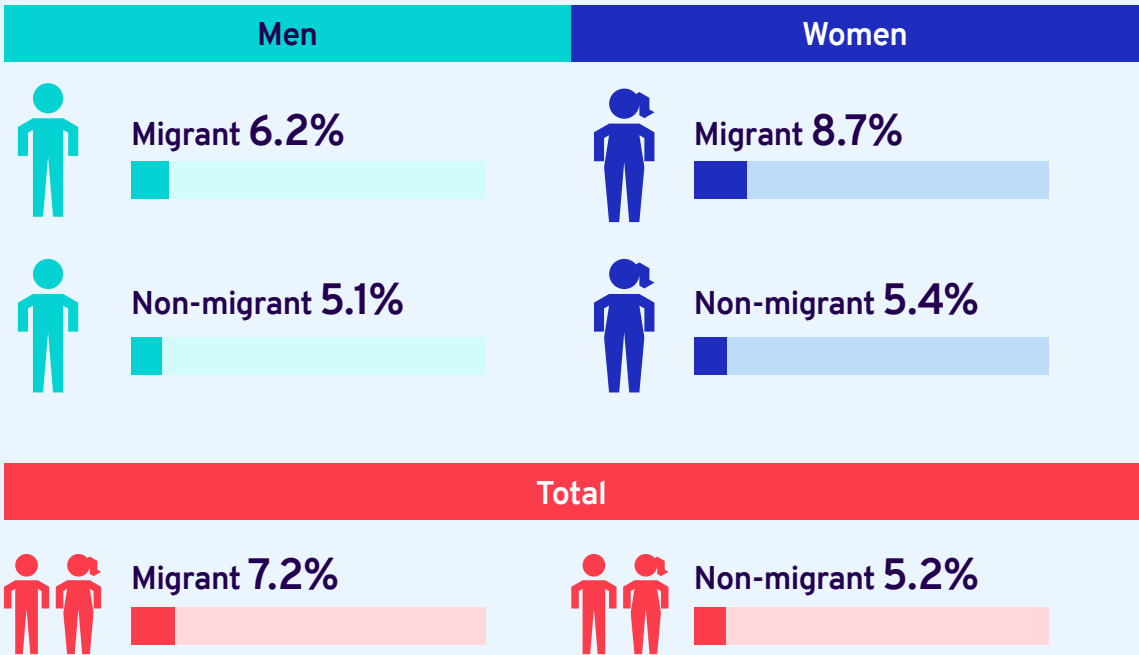
► In 2022, most employed international migrants were concentrated in the services sector



► A significant proportion of migrants were in care employment



► International migrants faced greater unemployment than non-migrants



## ► 1. Introduction

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In today's globalized economy, more people in search of decent work are looking for job opportunities beyond their home country. This report estimates that in 2022, the number of international migrants in the labour force stood at 167.7 million, representing 4.7 per cent of the global labour force. This number had grown by 30 million since 2013, with an average annual increase of 2.8 per cent until 2019. However, from 2019 to 2022, the growth slowed to less than one per cent per year.

These estimates cover 189 countries and territories, representing about 99 per cent of the world population (see Annex A). The presence of international migrants in the labour force not only benefits the destination countries, for example by addressing skills shortages and enriching host communities, it also supports development in their home countries through remittances and newly acquired skills of returning migrants.

Since its origin, the ILO has been committed to protecting the rights of migrant workers and has pioneered the development of international labour standards for the governance of labour migration. The Preamble of the ILO Constitution calls for the "protection of the interests of workers when employed in countries other than their own". Two major ILO Conventions and two Recommendations are specifically dedicated to labour migration governance and the protection of migrant workers: the Migration for Employment Convention (Revised) (No. 97) and Recommendation (No. 86), 1949; and the Migrant Workers (Supplementary Provisions) Convention (No. 143) and Recommendation (No. 151), 1975.

While all international labour standards, unless otherwise stated, are applicable to migrant workers, some are particularly relevant. These include first and foremost the ten Conventions and one Protocol (see box 1) that are considered fundamental within the meaning of the ILO Declaration on Fundamental Principles and Rights at Work (1998, amended in 2022).

Other international labour standards include those of general application, such as those addressing minimum wage fixing or protection of wages, hours of work or occupational safety and health in certain sectors; governance Conventions concerning labour inspection, employment policy and tripartite

consultation; and instruments containing specific provisions on migrant workers, such as the Private Employment Agencies Convention, 1997 (No. 181), the Domestic Workers Convention, 2011 (No. 189), the Violence and Harassment Convention, 2019 (No. 190), the Employment and Decent Work for Peace and Resilience Recommendation, 2017 (No. 205) and the international labour standards on social protection.

The International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families of 1990 (ICRMW) provides a wider framework of protection in a number of areas. The primary objective of the ICRMW is to protect migrant workers and their families, a particularly vulnerable population, from exploitation and the violation of their human rights. The ICRMW provides a comprehensive, human rights-based framework that recognizes "all migrant workers and members of their families without distinction of any kind such as sex, race, colour, language, religion or conviction, political or other opinion, national, ethnic or social origin, nationality, age, economic position, property, marital status, birth or other status." The ICRMW and the ILO instruments on labour migration are complementary and mutually reinforcing.

International labour migration continues to be a key policy priority at the global, regional and national levels. Yet, there is still limited information about the participation of international migrants in the labour market, their employment characteristics and working conditions. The *ILO Global Estimates on International Migrant Workers: International Migrants in the Labour Force* aims at filling this gap at global and regional levels and has progressively expanded the range of information available on international migrants in the labour force over the three previous editions (ILO 2015, 2018a, 2021a). This fourth edition introduces for the first time new estimates of the number of employed and



International labour migration continues to be a key policy priority at the global, regional and national levels.

► **Box 1. International labour standards particularly relevant to migrant workers**

The five categories of the ILO Declaration on Fundamental Principles and Rights at Work (1998, amended in 2022) include:

**(1) Freedom of association and the right to collective bargaining**

- Freedom of Association and Protection of the Right to Organise Convention, 1948 (No. 87)
- Right to Organise and Collective Bargaining Convention, 1949 (No. 98)

**(2) Elimination of all forms of forced or compulsory labour**

- Forced Labour Convention, 1930 (No. 29), including Protocol of 2014 to the Forced Labour Convention, 1930
- Abolition of Forced Labour Convention, 1957 (No. 105)

**(3) Effective abolition of child labour**

- Minimum Age Convention, 1973 (No. 138)
- Worst Forms of Child Labour Convention, 1999 (No. 182)

**(4) Discrimination in respect of employment and occupation**

- Equal Remuneration Convention, 1951 (No. 100)
- Discrimination (Employment and Occupation) Convention, 1958 (No. 111)

**(5) Safe and healthy working environment**

- Occupational Safety and Health Convention, 1981 (No. 155)
- Promotional Framework for Occupational Safety and Health Convention, 2006 (No. 187)

unemployed international migrants and some of their main characteristics.

To effectively address the multifaceted nature of the labour migration process across international borders, policies should be evidence-based and closely integrated with other domains, such as employment, education and training, social protection and gender equality, among other things, to ensure coherent and timely responses. Both countries of origin and destination present distinct policy complexities and related data challenges. Origin countries lack data on brain drain, fair recruitment and working conditions of their nationals abroad, their social insurance coverage and labour market reintegration of returnees. Destination countries require robust data for forecasting labour shortages and skill needs, integrating migrants in the labour market, preventing exploitation and managing irregular migration.

These essential policy issues require the production of more and better data. In addition, there is a need for further sex disaggregated data on labour



Since its origin, the ILO has been committed to protecting the rights of migrant workers and has pioneered the development of international labour standards for the governance of labour migration.

migration to more fully understand its gender dimension and in turn to design more gender-responsive and inclusive policy solutions. A better understanding is necessary of the economic contributions of international migrants in the labour force and their skills development, the types of economic activities they engage in, the frequency and duration of their migrations, and the broader impacts on both labour markets and economic development. Equally important is assessing the effectiveness of migration policies in ensuring decent work for all international migrants in the labour force.

While considerable progress has been achieved in gathering essential national data on international labour migration (temporary and permanent), much work remains to be done. Addressing these data gaps is critical to enhancing understanding and effectively addressing the challenges and opportunities posed by international labour migration.

To fulfil its mandate to support countries in designing evidence-based policies, the ILO is

currently updating the *Guidelines Concerning Statistics of International Labour Migration* (ILO 2018b), first endorsed by the International Conference of Labour Statisticians in 2018. These Guidelines have served as a foundational standard to promote data collection, based on agreed concepts, definitions, priority topics and classifications. The Guidelines, once updated, will continue to support countries in filling the important data gaps in labour migration, discussed above,

### ► Box 2. International migrants in the labour force: Main statistical concepts and definitions

**International migrant.** A person who has changed his or her country of residence and established new residence in the country within a given year. For data collection purposes, international migrants are defined as persons who are part of the resident population of a country other than their country of birth (foreign-born residents). When country of birth information is not available, international migrants are defined as persons who do not have the citizenship of the country in which they reside (foreign citizens). The concept of international migrants includes refugees, asylum seekers and related groups.

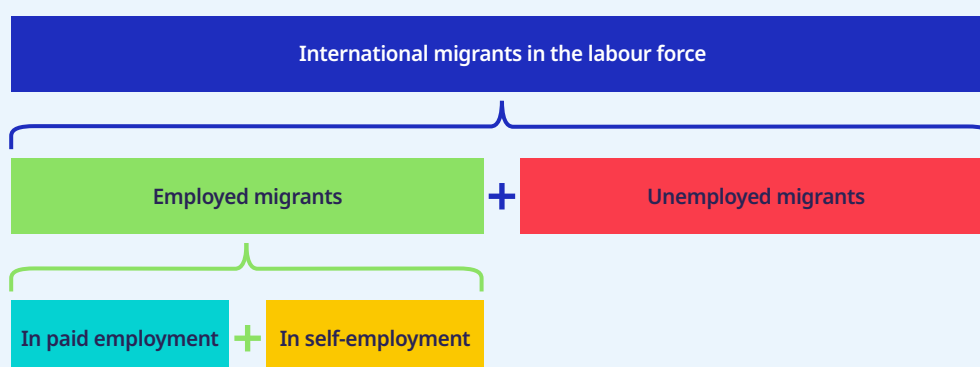
**Resident population.** Persons who have either: (a) lived in the country most of the last 12 months within a given year or have intentions to stay (or granted to stay) for at least 6 months; or (b) lived in the country at least 12 months within a given year or intentions to stay (or granted to stay) for at least 12 months, not including temporary absence for holidays or work assignments.

**International migrants in the labour force.** All international migrants of working age who are in the labour force in their country of residence, that is to say, employed or unemployed.

**Employed international migrants.** All international migrants of working age who, during a specified short reference period, were in paid employment or self-employment, that is to say engaged in any activity to produce goods or provide services for pay or profit. This concept includes both formal and informal employment.

**Unemployed international migrants.** All international migrants of working age who were not in employment but carried out activities to seek employment during a specified recent period and were available to take up employment given a job opportunity

► Figure B2.1. Subgroups of international migrants in the labour force



Source: ILO, 2018b, 2023a; UNDESA, 2021.

► **Box 3. Labour market indicators: Main statistical concepts and definitions**

**Labour force:** All persons who during a specified short reference period were engaged actively in the labour market. It is the sum of the number of persons employed and the number of persons unemployed and represents the current supply of labour available to engage in the production of goods and services in exchange for remuneration (pay or profit).

**Labour force participation rate:** The proportion of the working-age population that is in the labour force (employed or unemployed).

**Employment-to-population ratio:** The proportion of the working-age population that is employed (in employment). Employment comprises all persons of working age who during a short reference period, were in paid employment or in self-employment, that is, engaged in any activity to produce goods or provide services for pay or profit.

**Unemployment rate:** The proportion of the labour force that is unemployed (in unemployment). Unemployment comprises all persons of working age who were not in employment, carried out activities to seek employment during a specified recent period and were available to take up employment given a job opportunity. The unemployment rate is one of the measures of the underutilization of the labour supply and reflects the effectiveness of an economy to provide employment to its labour force.

**Source:** ILO, 2023a; <https://ilostat ilo.org/methods/concepts-and-definitions/description-labour-force-statistics/>.

and to enhance comparability across countries and regions. The revision of these Guidelines is expected to be completed by mid-2025 and to be closely aligned with the revised UN recommendations on international migration statistics. These efforts will contribute to having high-quality and harmonized data, based on common international statistical standards on international labour migration.

The global and regional estimates presented here draw on these most recent international statistical standards (see boxes 2 and 3). These statistical standards follow a human rights approach and aim to generate data to support evidence-based planning and decision-making, following the commitments made in the Global Compact for Safe, Orderly and Regular Migration (UN 2019) – an intergovernmentally negotiated agreement, prepared under the auspices of the United Nations, to cover all dimensions of international migration in a holistic and comprehensive manner – and under the Global Compact on Refugees (UN 2018) – a comprehensive framework designed to enhance international cooperation and provide durable solutions to refugee situations.



The ILMS database is the world's largest and most robust repository of national data on international labour migration.

The core data used in this report are taken from the ILO's International Labour Migration Statistics (ILMS) database, which disseminates the international labour migration indicators received annually from ILO Member States (see section B1.2, Annex B). Covering more than 70 indicators and 170 countries as of June 2024, the ILMS database is the world's largest and most robust repository of national data on international labour migration. For the vast majority of countries, the data refer to international migrants based on a country of birth criterion (see Annex C).

This report also uses: ILO labour market estimates for the total population (Revision of November 2023); and population and international migrant stock data, taken from the United Nations Department of Economics and Social Affairs (UNDESA) World Population Prospects (2022 Revision)<sup>1</sup> and International Migrant Stock 2020,<sup>2</sup>

1 Available at <https://population.un.org/wpp/Download/Archive/Standard/>.

2 Available at <https://www.un.org/development/desa/pd/content/international-migrant-stock>.

respectively. These datasets were the latest versions available, when the estimates presented in this report were prepared (June 2024).

This fourth edition of the *ILO Global Estimates on International Migrant Workers: International Migrants in the Labour Force* is based on a new estimation methodology for deriving the number and characteristics of international migrants in the labour force. Important data gaps, limitations and special policy priorities had required the use of different estimation methods over the three previous editions.<sup>3</sup> The significant expansion of the ILMS database in recent years<sup>4</sup> has resulted in more consistent labour migration data available at the global level for a larger number of countries. It has also provided an opportunity to strengthen and stabilize the methodological approach, with the use of robust model-based estimation methods to impute missing data.

In addition, it has opened the possibility to produce a larger array of results, with a higher level of reliability compared to previous estimates. For the first time, estimates of the number of employed and unemployed international migrants are also made available, and estimates are published at more detailed levels of disaggregation, compared to previous reports.<sup>5</sup> Following an established practice in statistics to allow for an accurate analysis of trends, the estimates for the previous reference years 2013, 2017 and 2019 were revised, using the new estimation methodology, the larger set of available national data for those years and the updated benchmark data for population and labour force estimates. Those revised estimates,

which are presented in this report, supersede the results disseminated in the three previous editions, to which they should not be compared.

This report is organized as follows:

- Following the Introduction, the estimates are presented in three sections: global estimates; estimates by country income group; and estimates by region and subregion.
- Annex A provides information on the geographical and country income classifications. The classification is based on the ILO geographical groupings of countries and territories and ILO broad subregions. The country income groups are based on the World Bank classification for 2024.
- Annex B presents the estimation methodology, describes the input data and their sources and discusses the quality of the estimates.
- Annex C displays the country reported national data by international migrant status, data sources and criterion for international migrant definition.
- Annex D provides additional results on the global and regional trends in international migrants in the labour force from 2013 to 2022.
- Annex E presents the International Standard Industrial Classification of All Economic Activities (ISIC), Revision 4.
- Annex F summarizes the operational definition of persons in care employment.



For the first time, estimates of the number of employed and unemployed international migrants are made available.

<sup>3</sup> The first edition of the report aimed to provide global estimates of international migrant workers and to estimate the number of international migrant domestic workers (this second set of estimates required the use of a specific set of data). All subsequent editions have focused exclusively on international migrant workers but used different sets of data given their limited availability, and different parameters for imputation of missing data.

<sup>4</sup> In October 2018, the ILMS database included only 19 indicators and covered 27 countries.

<sup>5</sup> Estimates by age and by economic activity are available by ILO regions, by broad subregions and by income group in this report. They were only available at the global level in previous editions.

## ► 2. Global estimates

This section presents the global estimates of the stock of international migrants in the labour force and its two components, employed international migrants and unemployed international migrants, for the reference year 2022. Definitions are provided in the Introduction (see boxes 2 and 3). Trends since 2013 are also presented.

Estimates are broken down by sex, age and broad category of economic activity. The estimates presented in this section reflect the situation of international migrants in the labour force at the global level, but significant variations exist at a more detailed level. Estimates by country income group and geographic regions (see Annex A) are presented in subsequent sections.

### 2.1. International migrants in the labour force

The global stock of international migrants stood at 284.5 million in 2022, of whom 255.7 million were of working age (15 and over).<sup>6</sup> The stock

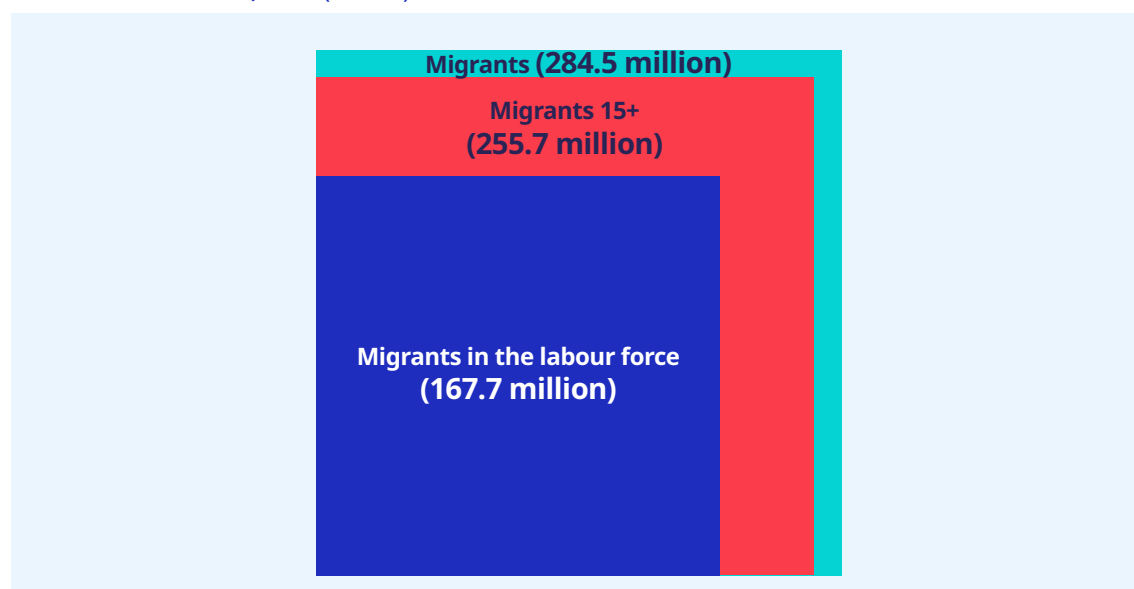


International migrants represented 4.3 per cent of the global working-age population in 2022.

of international migrants in the labour force in 2022 was estimated at 167.7 million (see figure 1), representing 65.6 per cent of migrants of working age. Among those, 155.6 million were employed and 12.1 million were unemployed (see figure 2).

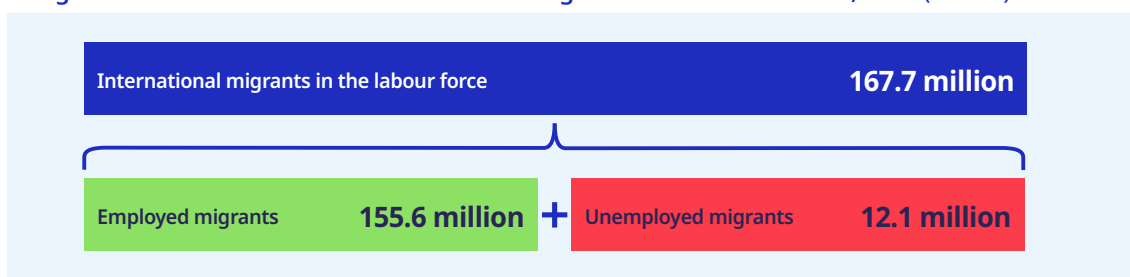
The 2022 estimates increased by 3 million from the revised estimate for 2019 (164.6 million), by 11 million from the revised estimates for 2017 (156.7 million) and by 30 million from the revised estimates for 2013 (137.4 million) (see figure 3). Growth was higher from 2013 to 2017 and from 2017 to 2019, when the number of international migrants in the labour force increased annually by an average of 3.5 per cent and 2.5 per cent,

► **Figure 1. Global estimates of the stock of international migrants and international migrants in the labour force, 2022 (million)**

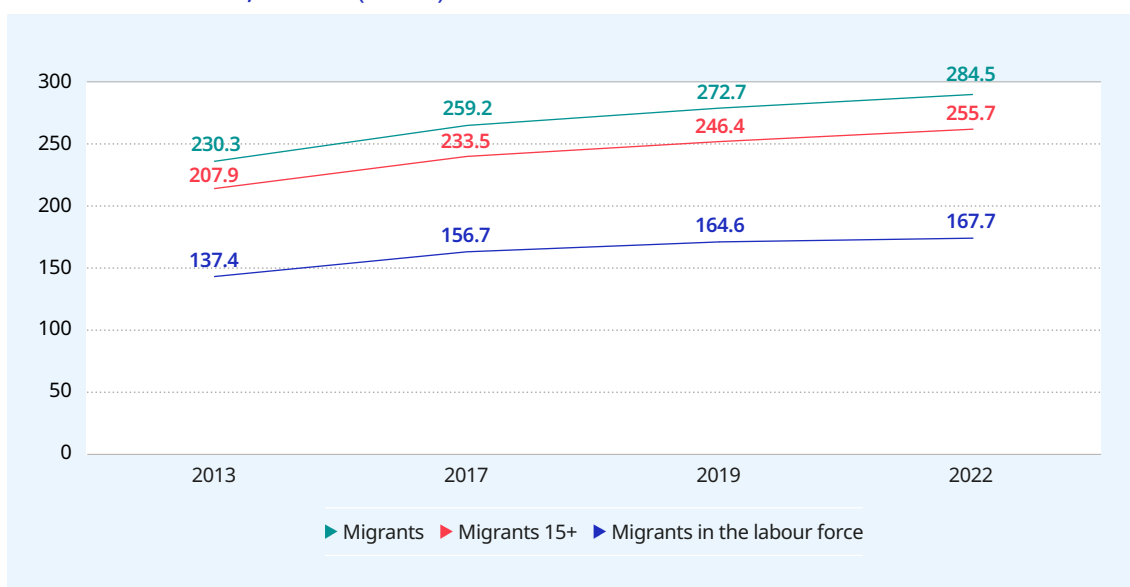


**Source:** ILO estimates.

<sup>6</sup> In the absence of published international migrant stock for the reference year 2022 at the end June 2024, the international migrant stock values were estimated by using the proportion of migrants in 2020 (calculated from UNDESA International Migrant Stock 2020 Revision; available at <https://www.un.org/development/desa/pd/content/international-migrant-stock>), under the assumption that the proportion remained constant in 2022. For more details, see Annex B.

► **Figure 2. Global estimates of international migrants in the labour force, 2022 (million)**

Source: ILO estimates.

► **Figure 3. Global estimates of the stock of international migrants and international migrants in the labour force, 2013–22 (million)**

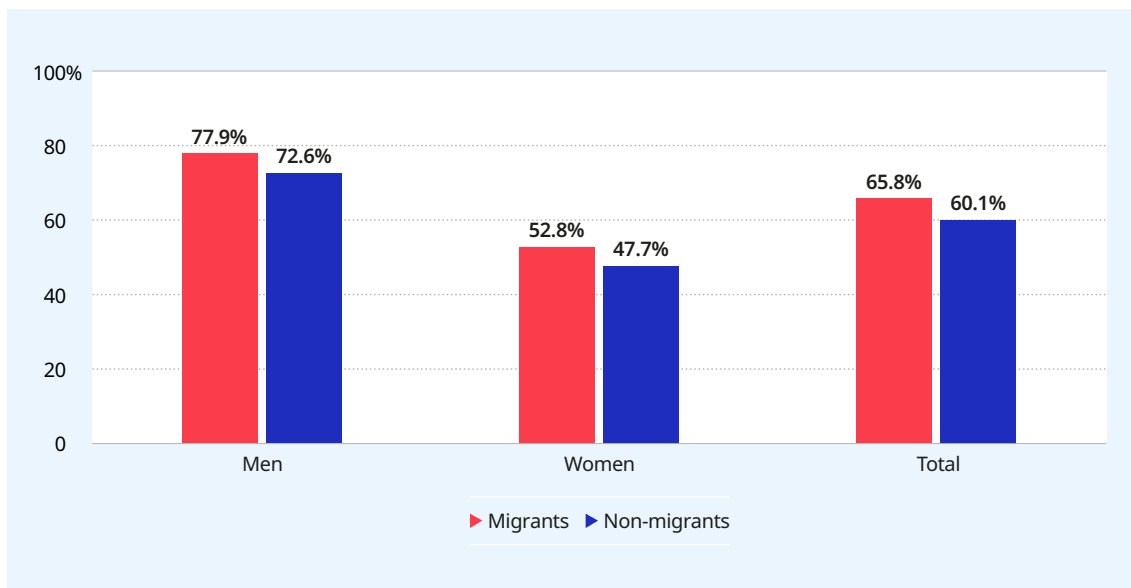
Source: ILO estimates.

respectively. From 2019 to 2022, however, the rate of growth slowed down to less than 1 per cent annually, which could be attributed to a number of factors, including the COVID-19 pandemic.

International migrants represented 4.3 per cent of the global working-age population (aged 15 and over) in 2022 and accounted for 4.7 per cent of the global labour force. While the number of international migrants in the labour force increased over time, their share among migrants of working age remained stable, at around 66.1 per cent in 2013, 67.1 per cent in 2017, 66.8 per cent in 2019 and 65.6 per cent in 2022.

In 2022, migrants had a higher labour force participation rate (65.8 per cent) than non-migrants (60.1 per cent) (see figure 4). Many migrants move primarily for economic reasons, seeking better job opportunities and higher wages. This strong economic drive often translates into higher labour force participation (Kerr and Kerr 2011). In addition, some countries have immigration policies that favour skilled workers or those who already have job offers, which can lead to higher labour force participation among migrants (Ruhs 2008).

► **Figure 4. Global labour force participation rate of migrants and non-migrants by sex, 2022**  
(percentage)



Source: ILO estimates.

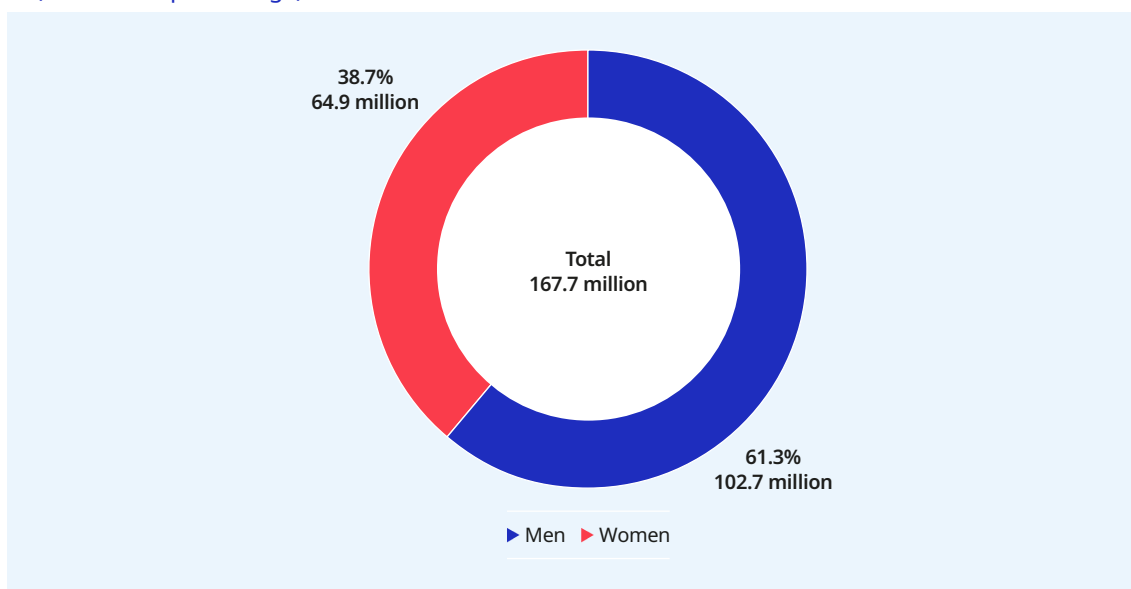
### 2.1.1. Gender analysis

Men constituted the majority of international migrants in the labour force. According to 2022 estimates of international migrants in the labour force, 64.9 million were women (38.7 per cent) and 102.7 million were men (61.3 per cent) (see figure 5).

International migrant men represented 4.7 per cent of the total male labour force, and migrant women 4.5 per cent of the total female labour force.

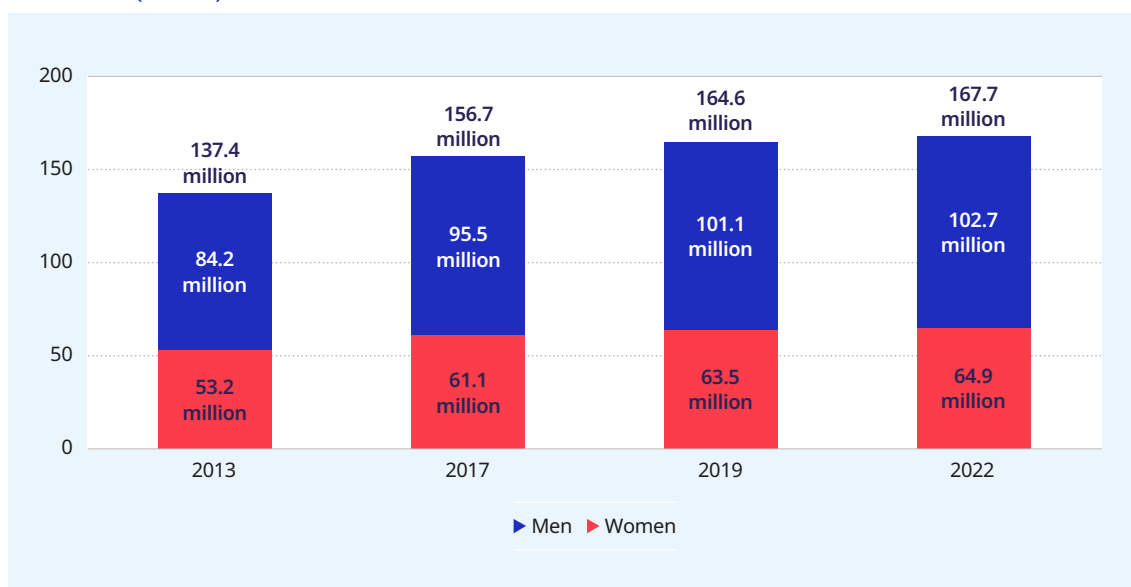
From 53.2 million in 2013, the number of women international migrants in the labour force increased steadily to 64.9 million in 2022 (see figure 6).

► **Figure 5. Global distribution of international migrants in the labour force by sex, 2022**  
(million and percentage)



Source: ILO estimates.

► **Figure 6. Global estimates of the stock of international migrants in the labour force by sex, 2013–22 (million)**



Source: ILO estimates.



The number of women international migrants in the labour force increased to 64.9 million in 2022.

Although the sex distribution remained stable over this period, the global average hides significant regional variations (see section 4).

There are two main explanations for the lower representation of women among international migrants in the labour force. First, the share of migrant women is slightly lower among the total migrant population, at 48.2 per cent; and second, international migrant women have a lower labour force participation rate than men (see figure 4).

Migrant women often exhibit consistently lower labour force participation rates (see figure D1, in Annex D) due to the interplay of structural, socio-

cultural and policy-related factors. Structural barriers, such as limited access to childcare, inadequate language proficiency and a lack of recognition of foreign qualifications can hinder their ability to engage in the labour market (ILO 2020a; Moussié 2020).

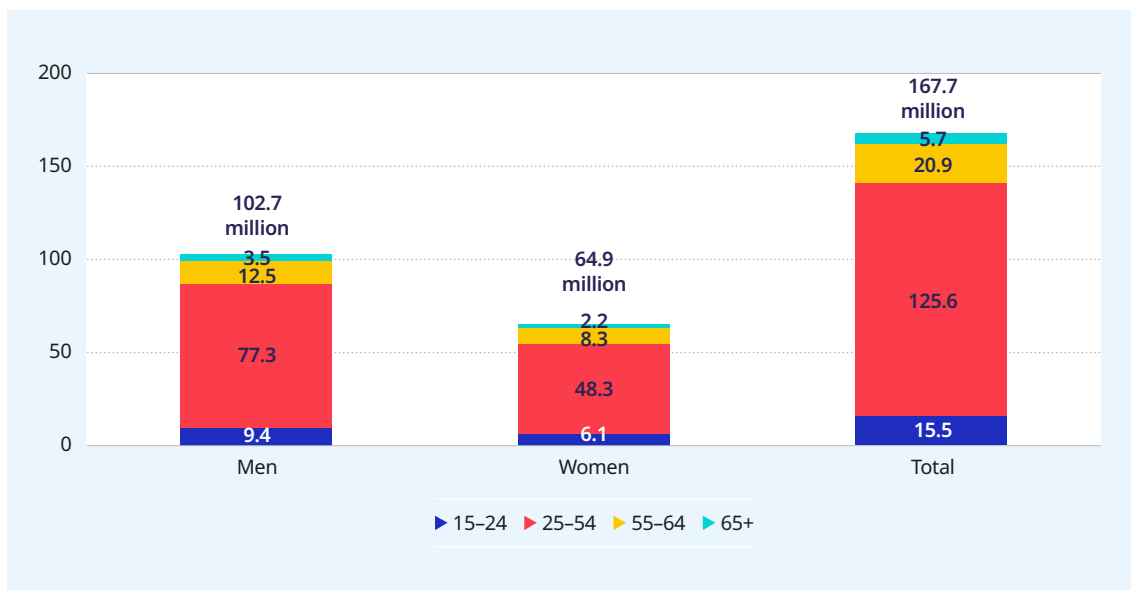
For reasons relating to cost and availability, a greater percentage of migrant women with children, compared to non-migrants, report not using childcare services. This factor could also have an impact on their access to employment opportunities and labour force participation (OECD 2020). Socio-cultural factors, including traditional gender roles and expectations, may further restrict their participation, especially in communities where women are expected to prioritize domestic responsibilities (Kofman et al. 2005; Kofman and Raghuram 2015). Discriminatory practices and biases in the labour market can also contribute to limited employment opportunities for migrant women, exacerbating their economic marginalization (Fernández-Reino, Di Stasio and Viet 2023; Lee and Piper 2013).

## 2.1.2. Age composition

The vast majority of international migrants in the labour force are prime-age adults (aged 25–54) (see figures 7 and 8). According to 2022 estimates, there were 125.6 million international migrants in the labour force in this age group, 15.5 million

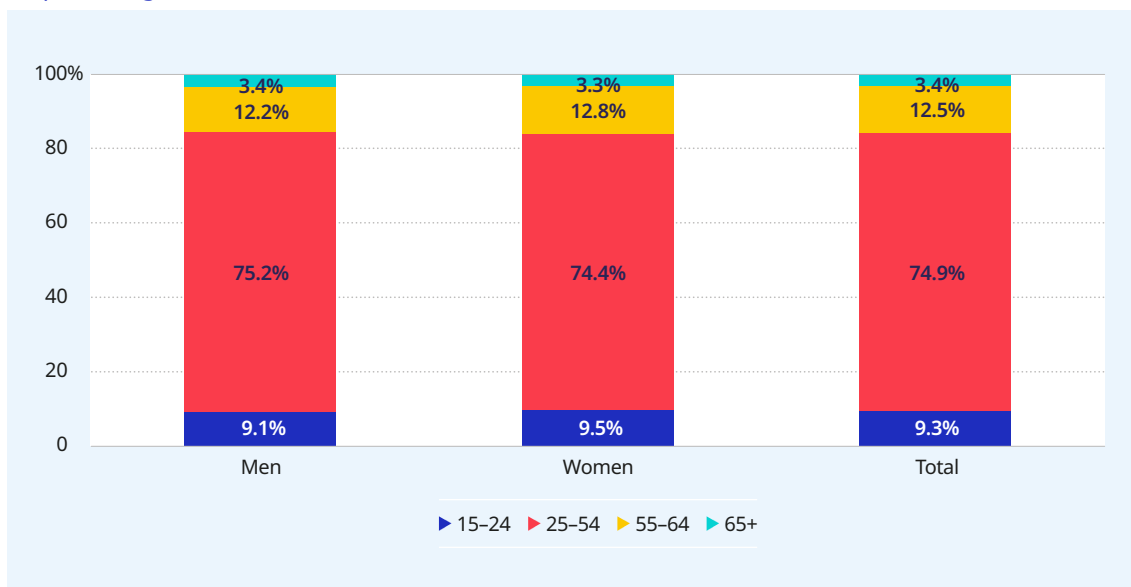
were youth aged 15–24, 20.9 million were aged 55–64 and 5.7 million were aged 65 and over. Youth constituted 9.3 per cent and prime-age adults 74.9 per cent of international migrants in the labour force. Those aged 55–64 accounted for 12.5 per cent and people 65 and older 3.4 per cent.

► **Figure 7. Global estimates of international migrants in the labour force by sex and age, 2022 (million)**



Source: ILO estimates.

► **Figure 8. Global age composition of international migrants in the labour force by sex, 2022 (percentage)**



Source: ILO estimates.



Prime-age adults (aged 25–54) constitute the majority of international migrants in the labour force.

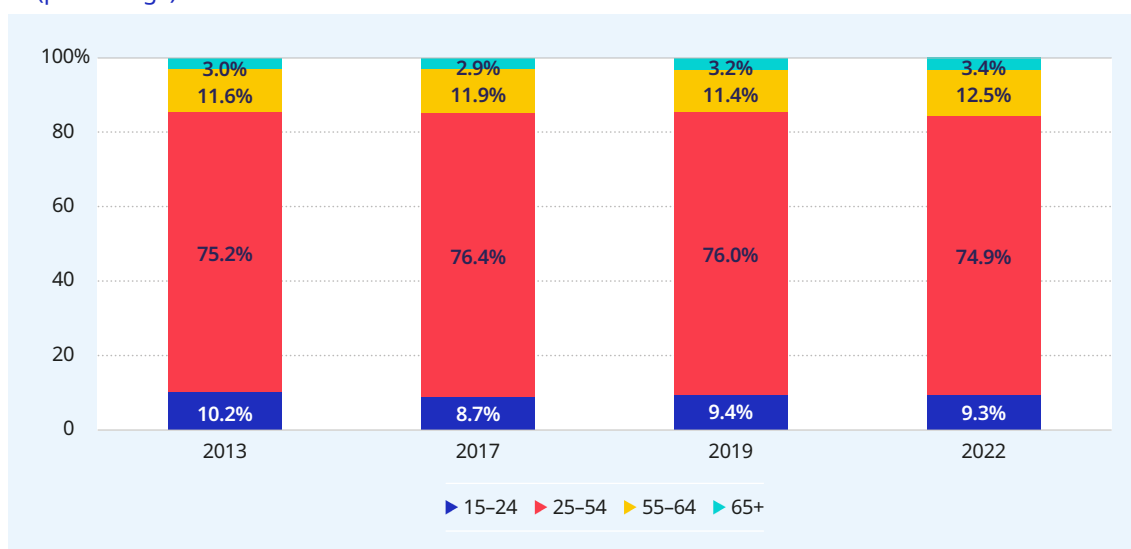
A similar pattern was observed in earlier years, with prime-age adults comprising the majority of international migrants in the labour force. Prime-age international migrants in the labour force have more financial means to migrate, higher earnings and stronger social networks compared to younger counterparts, who tend to have fewer years of experience. Older workers, on the other hand, have fewer economically active years remaining. Consequently, prime-age international migrants in the labour force might have greater incentives and opportunities to move (ILO 2021a). This has been also reflected in their economic contribution in the countries of destination (OECD/ILO 2019).

Over time, the proportion of young people among international migrants in the labour force fluctuated, falling from 10.2 per cent in 2013 to 8.7 per cent in 2017 and increasing to 9.3 per cent in 2022 (see figure 9). On the other hand, the

proportion of international migrants in the labour force who are older (55–64 and 65 and above) rose slightly between 2013 and 2022 from 11.6 per cent to 12.5 per cent, and 3 per cent to 3.4 per cent, respectively. The proportion of prime-age international migrants in the labour force remained stable over the same period. Both men and women followed the same pattern over the period.

In countries that are traditionally migrant destinations, labour markets have become tighter in recent years; while in origin countries, the unemployment rate continues to be high, and the number of new labour market entrants have grown significantly (WEF 2023). Thus, greater unemployment rates among young people or simply fear of unemployment in their origin country can be another reason for the youth to migrate (Blanchflower and Shadforth 2009). Young people could more easily migrate due to better employment and educational opportunities abroad, as well as the flexibility and fewer family responsibilities associated with youth (de Haas, Castles and Miller 2014). Demographic change affects countries differently, as many advanced economies face ageing populations, whereas in many developing countries there is a “youth bulge”.<sup>7</sup>

► **Figure 9. Global age composition of international migrants in the labour force, 2013–22 (percentage)**



Source: ILO estimates.

<sup>7</sup> A youth bulge occurs when high fertility rates and declining infant mortality rates lead to a large number of young people relative to the adult population (ILO 2013).

The globalization of education, such as international scholarships and exchange programmes, also facilitates youth migration (UNESCO 2019). In contrast, older individuals tend to migrate less due to higher migration costs (the psychological toll of being apart from friends and family, a larger social capital and a greater amount of specific human capital), as well as lower expected earnings gains (IMF 2015; Simpson 2022).



In 2022, less than one in ten international migrants in the labour force were aged below 25 years.

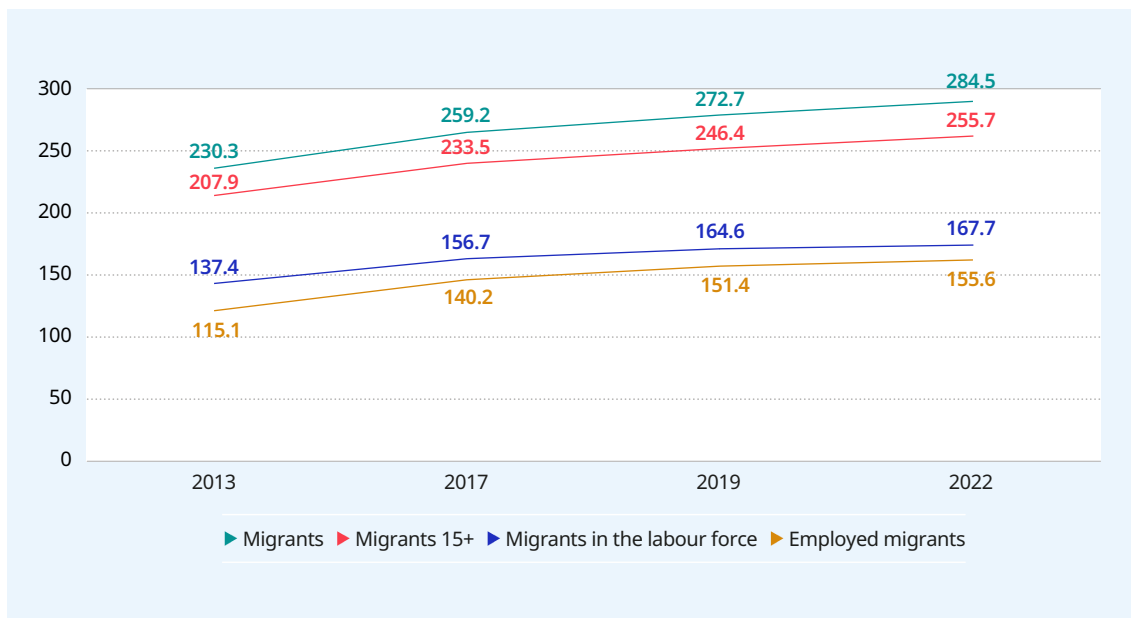
## 2.2. Employment of international migrants

### 2.2.1. Employment level and employment-to-population ratio

Out of 167.7 million of international migrants in the labour force, 155.6 million were employed in 2022, accounting for 4.6 per cent of global employment. This represents a steady increase, with 4 million more employed migrants since 2019, 16 million more since 2017 and 41 million more since 2013 (see figure 10).

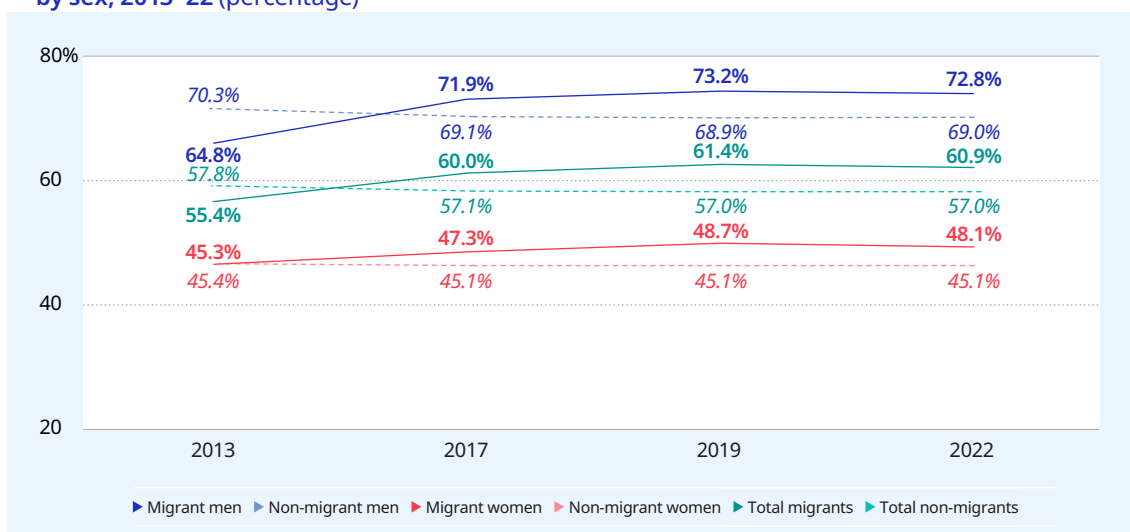
The employment-to-population ratio of international migrants, which reflects the proportion of migrants in employment, among all migrants of working age, is 60.9 per cent (see figure 11). The employment-to-population ratio of migrants is slightly higher than that of non-migrants, meaning that a larger share of the migrant population aged 15 and over is employed, compared to non-migrants. This ratio increased until 2019 and slightly decreased in 2022.

► **Figure 10. Global estimates of the stock of international migrants, international migrants in the labour force and employed international migrants, 2013–22 (million)**



Source: ILO estimates.

► **Figure 11. Global employment-to-population ratio of international migrants and non-migrants by sex, 2013–22 (percentage)**



Source: ILO estimates.

The overall rise in the number of employed migrants and increasing employment-to-population ratios from 2013 to 2019 indicate that more migrants were able to find jobs abroad. One factor contributing to this trend could be the impact of ageing populations in high-income countries (Carling 2017). Migrants frequently fill labour market shortages in destination countries, particularly in sectors such as agriculture, care and construction. The decrease in employment observed in 2022 could be partially attributed to the COVID-19 pandemic (see box 4).

In 2022, the total number of migrant men in employment was estimated at 96.3 million and for women 59.3 million (see table 1), accounting for 4.7 per cent and 4.4 per cent of total employment for men and women globally, respectively.

Both migrant men and women had higher employment-to-population ratios compared to non-migrants. In 2022, the employment-to-population ratio of migrant men was estimated at 72.8 per cent, compared to 69.0 per cent for non-migrant men. For migrant women, the estimated ratio was 48.1 per cent, compared to 45.1 per cent for non-migrant women (see figure 11).

► **Table 1. Global employment of international migrants and non-migrants by sex, 2022 (million and percentage)**

	Men	Women	Total
Global employment	2 052.8 (60.3%)	1 351.7 (39.7%)	3 404.5 (100%)
Migrants in employment	96.3 (61.9%)	59.3 (38.1%)	155.6 (100%)
Non-migrants in employment	1 956.4 (60.2%)	1 292.4 (39.8%)	3 248.8 (100%)

Source: ILO estimates.

#### ► Box 4. International labour migration and the COVID-19 pandemic

The COVID-19 pandemic had an unprecedented effect on the global economy, with evidence indicating that international migrant workers were particularly vulnerable to its impacts. In 2020, the ILO estimated that full or partial lockdown measures affected almost 2.7 billion workers, representing around 81 per cent of the world's workforce (ILO 2020b).

To shed light on the specific situation of international migrant workers in destination countries the ILO coordinated a series of rapid assessments in early to mid-2020 in selected countries of origin and destination (ILO 2021b). These assessments collected primary data from interviews and surveys from international migrant workers and key stakeholders (including governments, civil society, the recruitment sector, and employers' and workers' organizations) involved in migration governance. The analysis revealed common issues, showing the effects the pandemic had on international migrant workers' employment, health and livelihoods. In particular:

- **Jobs and income lost.** Migrants employed in low-wage sectors were among the first to experience job losses. Many remained stranded in destination countries, struggling to cover living expenses due to lost income and limited savings. This made it difficult for them to send remittances back home, which also had an impact on family support in their countries of origin. In addition, reports of labour rights violations against migrant workers increased.
- **Migration cost.** The pandemic worsened migrant workers' debt, as many became unemployed and could not repay loans. The businesses surveyed reported a significant reduction in demand in construction, hospitality, tourism, manufacturing, security and domestic work. Although reported downturns were specific to certain locations, globally there was also evidence of increased demand in sectors related to health and social care that are an important source of employment for international migrant workers.
- **Access to healthcare and social protection.** Migrant workers reported being excluded from receiving basic medical assistance and income security in destination countries, which could have protected them in case of sudden unemployment.
- **Return and labour market reintegration.** Among those migrant workers who suddenly had to return in their origin countries, two major concerns were documented: first, the COVID-19 pandemic appeared to have escalated the problem of unpaid wages, as returnees had very limited opportunities to file claims upon their return. Second, returnees reported facing uncertain job prospects due to limited employment opportunities locally and the global economic slowdown.
- **Remigration.** Interest in employment abroad remained high among those interviewed, as most migrants returning early in the pandemic indicated intentions to migrate again.

**Note:** The ILO rapid assessments included: Association of Southeast Asian Nations; Cambodia; Caribbean; Intergovernmental Authority on Development; India; Latin America; Madagascar; Malaysia; Mexico and Guatemala; Myanmar; Nepal; Pakistan; Philippines; Southern Africa; Sri Lanka; Thailand; and Tunisia. Due to the quickly evolving circumstances of the pandemic, the rapid assessments vary significantly in length, focus and methodology. Some include in-depth primary stakeholder interviews; some have detailed descriptions of the policy responses of different countries across a region, while others mainly offer a narrative.

**Source:** ILO, 2020b, 2021b.

## 2.2.2. Employed international migrants by broad category of economic activity

The majority of employed international migrants were concentrated in services (68.4 per cent), followed by industry (24.3 per cent), and agriculture (7.4 per cent) (see figure 12; see Annex E for a breakdown of economic activities). In comparison, 51.5 per cent of non-migrants were employed in services, 24.3 per cent in agriculture and 24.2 per cent in industry. Over time, the employment trends for international migrants have been stable (see figure D2 in Annex D).

Important disparities exist between the distribution of migrant men and women in employment by broad category of economic activity. Although the majority of international migrants in the labour force were in the services sector, the proportion of women (80.7 per cent) was significantly higher than of men (60.8 per cent). However, the share of men in industry (31.7 per cent) was over 2.5 times greater than of women (12.2 per cent). There was no great difference between the share of men and women in the agriculture sector, which was a little over 7 per cent for both.

The higher representation of migrant women employed in the services sector is influenced by both demand and supply-side factors. There is

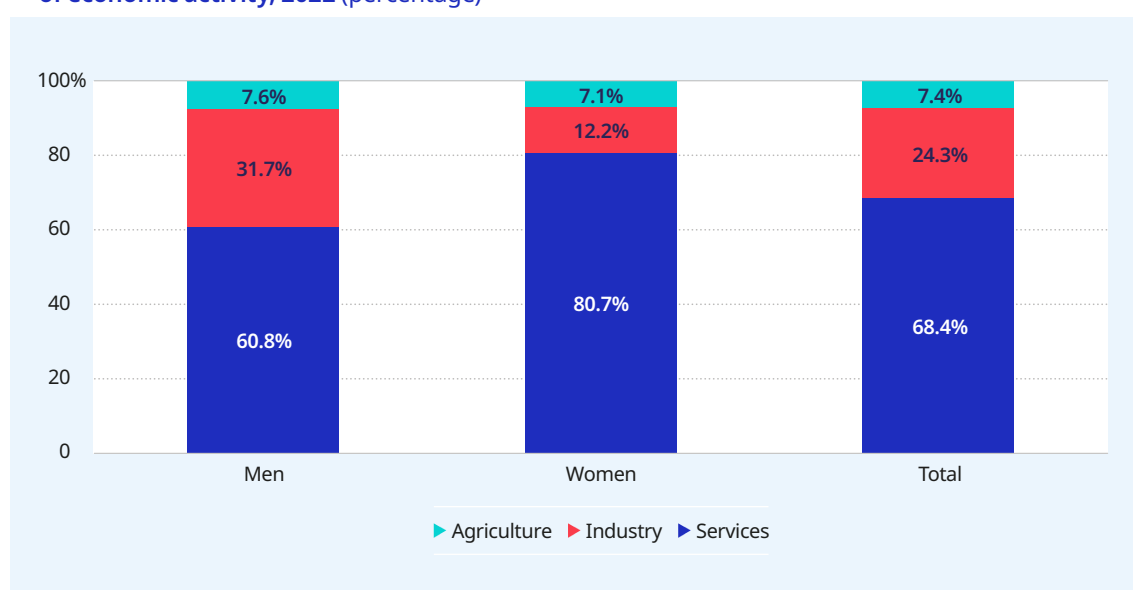


The majority of employed international migrants were concentrated in services.

a growing global demand for care work in many destination countries due to demographic changes, such as ageing. The care sector traditionally employs a higher proportion of women (ILO 2015, 2018c, 2024a), including migrant women (Yeates 2009) (see box 5). Moreover, social networks and recruitment agencies often channel migrant women into services sector, reinforcing their representation in this economic activity (Bastia 2007). With regard to migrant men, many male-dominated industries, such as construction, heavily rely on migrant men for labour (Buckley et al. 2016).

The estimates for 2013 to 2022 suggest different patterns of change for employed migrant men and women (see figure 13). In the case of women, first a drop in agriculture (from 8.3 per cent to 6.8 per cent) and a nearly commensurate rise in services (from 80.8 per cent to 82.3 per cent) was observed between 2013 and 2017. However, the share of women employed in agriculture rose from 6.8 per

► **Figure 12. Global distribution of employed international migrants by sex and broad category of economic activity, 2022 (percentage)**



Source: ILO estimates.

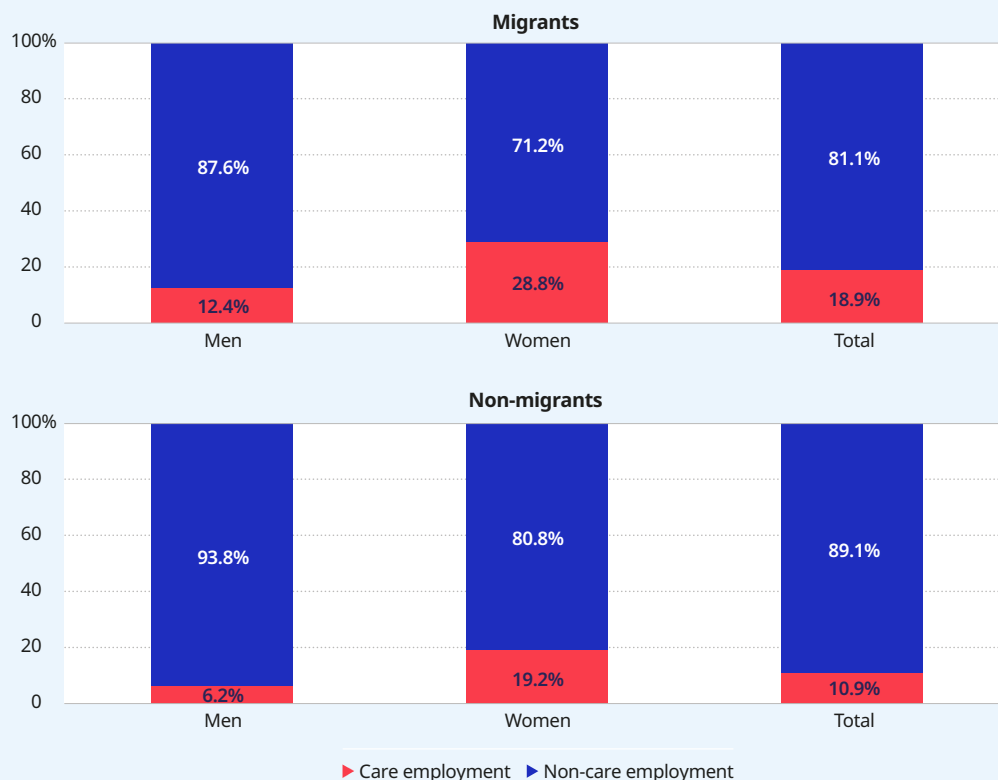
### ► Box 5. International migrants in care employment

Within the services sector, care employment represents an important area of jobs for international migrants. While work is ongoing to develop internationally agreed statistical standards on the definition of care work (paid and unpaid) and its measurement for discussion at the 22nd International Conference of Labour Statisticians in 2028, care services broadly include activities and relations involved in meeting the physical, psychological, and emotional needs of adults and children, old and young, frail and able-bodied (ILO, 2018b).<sup>1</sup> This can include employment in care occupations, such as nurses, teachers, domestic workers, as well as in industries, such as residential care services (see Annex F for details). Care employment can take place in a wide a range of settings, such as private households, communities and public or private hospitals, clinics, nursing homes, schools and other care or support establishments or facilities (ILO 2024b).

Estimates by the ILO indicate that 11.5 per cent of the total global employed population in 2018 were engaged in care employment (ILO 2018c).

Estimates based on newly available data for the reference year 2022 show that international migrants were more likely to work in care jobs compared to the non-migrant population. Data covering 109 countries and territories indicate that 18.9 per cent of international migrants are employed in care jobs, compared to 10.9 per cent of non-migrants (see figure B5.1). This proportion is particularly high among migrant women, with almost one in three (28.8 per cent) employed in care jobs, compared to 19.2 per cent of non-migrant women. Migrant men are also more likely to be employed in care jobs (12.4 per cent) compared to non-migrant men (6.2 per cent).

► **Figure B5.1. Distribution of employed international migrants and non-migrants by care or non-care employment, 2022 (percentage)**



Source: ILO estimates.

► **Box 5. (cont.)**

The sex distribution of international migrants in care employment reflects the higher engagement of women in care jobs. Of migrants employed in the care economy 60 per cent are women and 40 per cent are men. In contrast, among migrants in all other branches of economic activity, 35 per cent are women and 65 per cent are men.

These estimates show the importance of international migrants, and especially migrant women, in filling the significant global demand for care jobs.

<sup>1</sup> According to the International Labour Conference Resolution concerning decent work and the care economy, care work consists of “activities and relations that pursue sustainability and quality of life; nurture human capabilities; foster agency, autonomy and dignity; develop the opportunities and resilience of those who provide and receive care; address the diverse needs of individuals across different life stages; and meet the physical, psychological, cognitive, mental health and developmental needs for care and support of people including children, adolescents, youth, adults, older persons, persons with disabilities and all caregivers.” ILO, *Resolution concerning decent work and the care economy*, International Labour Conference, 112th Session, 2024.

► **Figure 13. Distribution of employed international migrants by sex and broad category of economic activity, 2013–22 (percentage)**



**Note:** For estimates for both sexes combined, see figure D2, Annex D.

**Source:** ILO estimates.

cent to 7.1 per cent between 2017 and 2022. This could be due to the rising labour shortages in the agricultural sector in high-income countries during the COVID-19 pandemic, which were not filled by local workers (Kalantaryan, Mazza and Scipioni 2020).

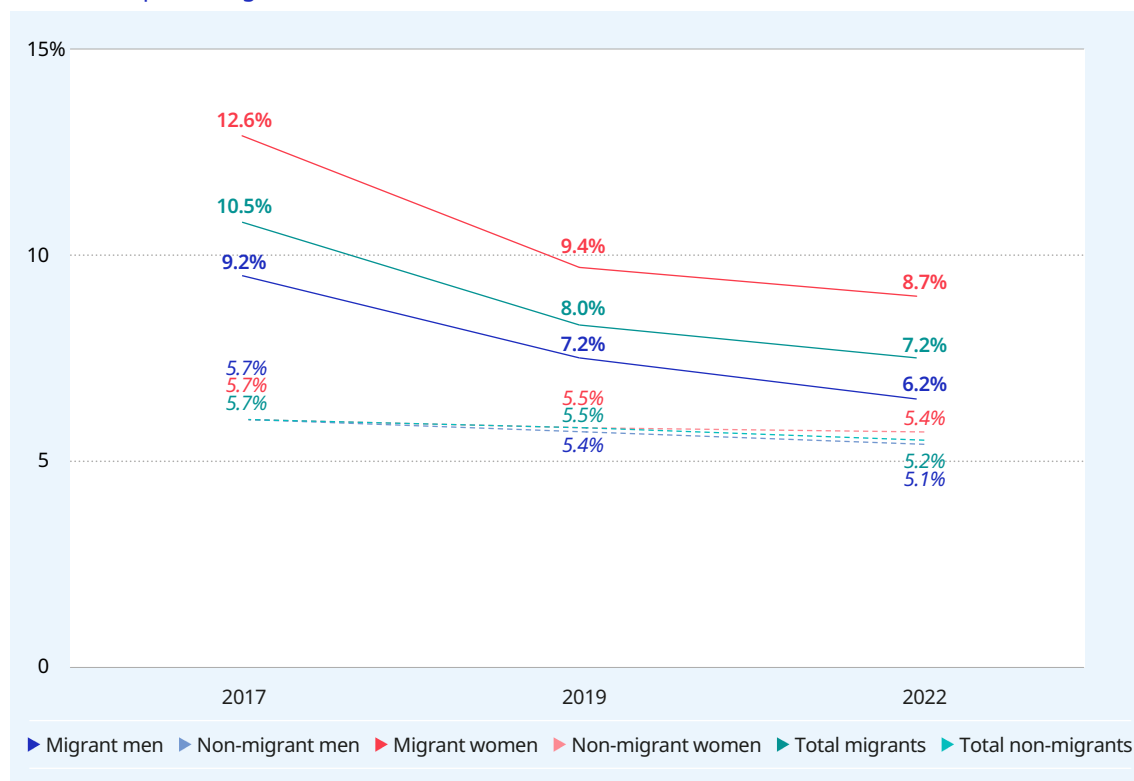
In the case of men, the share of agriculture remained stable between 2013 and 2022 but rose to 8.5 per cent in 2019. In the case of services, a small decline was observed between 2013 and 2022 (from 61.2 per cent to 60.8 per cent). For the same period, the share of migrant men employed in industry slightly increased. Overall, the changes over the past decade were relatively small, suggesting that these employment patterns are quite established. Even major global events, such as the COVID-19 pandemic, among other developments, led only to minor shifts in these trends, indicating a structural resilience in the sectoral distribution of migrant employment.

## 2.3. Unemployment of international migrants

In 2022, 7.2 per cent of international migrants were unemployed, compared to 5.2 per cent of non-migrants. However, the migrant unemployment rate declined compared to the 2017 and 2019 estimates, which were 10.5 per cent and 8.0 per cent, respectively (see figure 14). This follows the general global trend of unemployment over the same period (ILO 2024b).

The higher unemployment rates of international migrants compared to non-migrants reflects the greater challenges they face in securing employment in destination countries. This trend is consistent over time and can be attributed to factors such as language barriers, the lack of recognition of foreign qualifications and the presence of discrimination. Migrants often face difficulties in acquiring the language proficiency necessary for many jobs, which limits their employment opportunities (Chiswick and Miller 2014).

► **Figure 14. Global unemployment rate of international migrants and non-migrants by sex, 2017–22 (percentage)**



**Note:** Available national data insufficient for 2013 estimation.

**Source:** ILO estimates.

Furthermore, the skills and qualifications achieved in their origin countries may not be recognized or valued in the destination country, leading to underemployment or unemployment (McCollum and Findlay 2015). To reduce the unemployment differences between migrants and non-migrants, inclusive social policies can be helpful, particularly active labour market policies and housing benefits (Duman, Kahanec and Kurekova 2022).

In 2022, the unemployment rate for migrant women (8.7 per cent) was higher compared to migrant men (6.2 per cent), indicating the existence of gender-specific obstacles, such as greater responsibility for

unpaid care work (Kofman and Raghuram 2015), that hinder employment opportunities of migrant women (see figure 14). Over time, migrant women continue to face a higher risk of unemployment compared to men. Socio-cultural norms and gender expectations often dictate certain roles and occupations deemed suitable for women, leading to the confinement of migrant women to specific sectors and occupations that are typically characterized by lower wages and reduced job security (Piper 2006). Hence, the limited access to decent jobs can be another factor increasing the unemployment rate of migrant women.



In 2022, the unemployment rate for migrant women (8.7 per cent) was higher compared to migrant men (6.2 per cent).

## ► 3. Estimates by country income group

This section presents the estimates of the stock of international migrants in the labour force, employed international migrants and unemployed international migrants by income level of the destination countries. Destination countries are grouped into four income levels as defined by the World Bank's country classification (see Annex A).

### 3.1. International migrants in the labour force

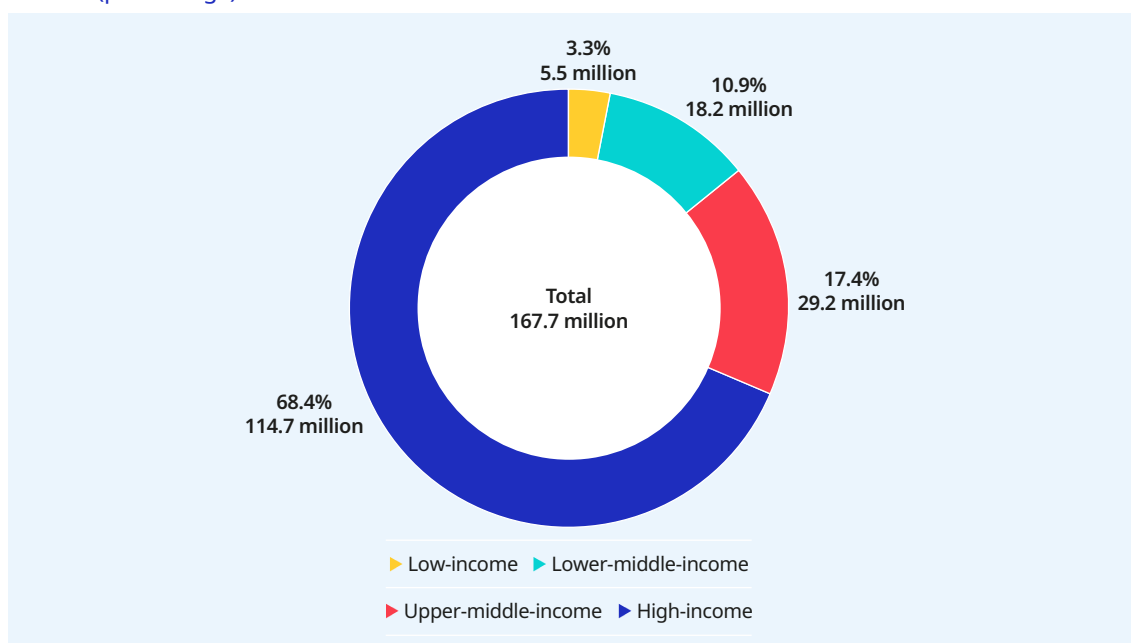
In 2022, the majority of international migrants in the labour force were concentrated in high-income countries, which accounted for 68.4 per cent (114.7 million), followed by 17.4 per cent (29.2 million) in upper-middle-income countries (see figure 15). The higher living standards and labour market opportunities these countries offered strong incentives for migrants to relocate there. In contrast, the proportion of international migrants in lower-middle-income and low-income countries were much lower at 10.9 per cent (18.2 million) and 3.3 per cent (5.5 million), respectively.

At 18.0 per cent in 2022, international migrants in the labour force constituted a substantial proportion of the labour force of high-income countries (see figure 16). This high share can be explained by the large size of immigration and higher labour force participation rates among migrants. In contrast, in low-income, lower-middle-income and upper-middle-income countries, the share of international migrants in the labour force was lower and did not exceed 2.1 per cent in 2022. The labour force participation rate of international migrants was higher than non-migrants in all country income groups except in low-income economies (see figure 17).



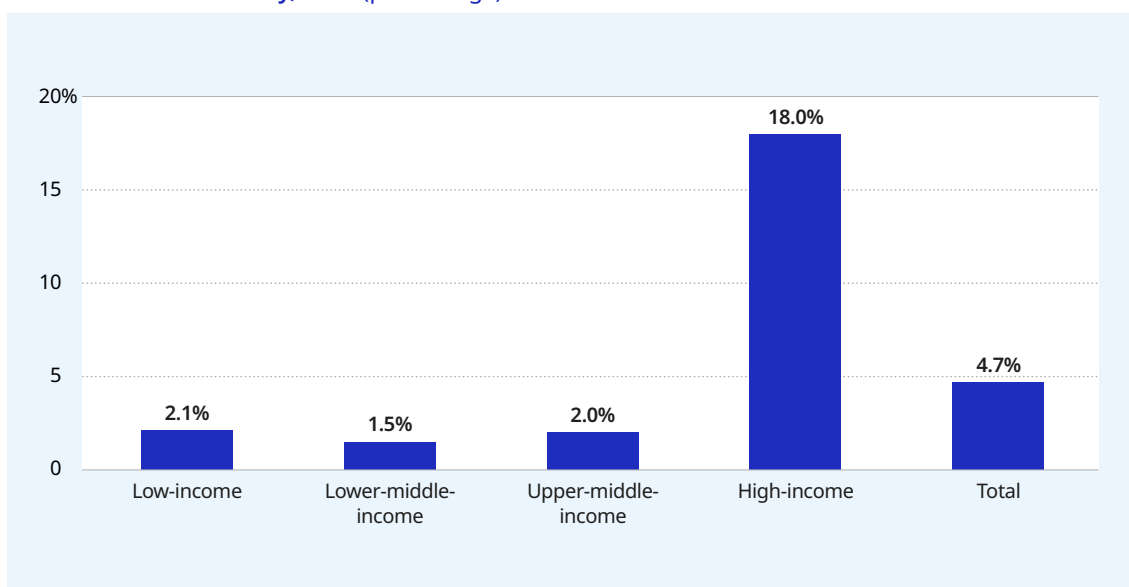
The majority of international migrants in the labour force were concentrated in high-income countries.

► **Figure 15. International migrants in the labour force by income level of destination country, 2022 (percentage)**



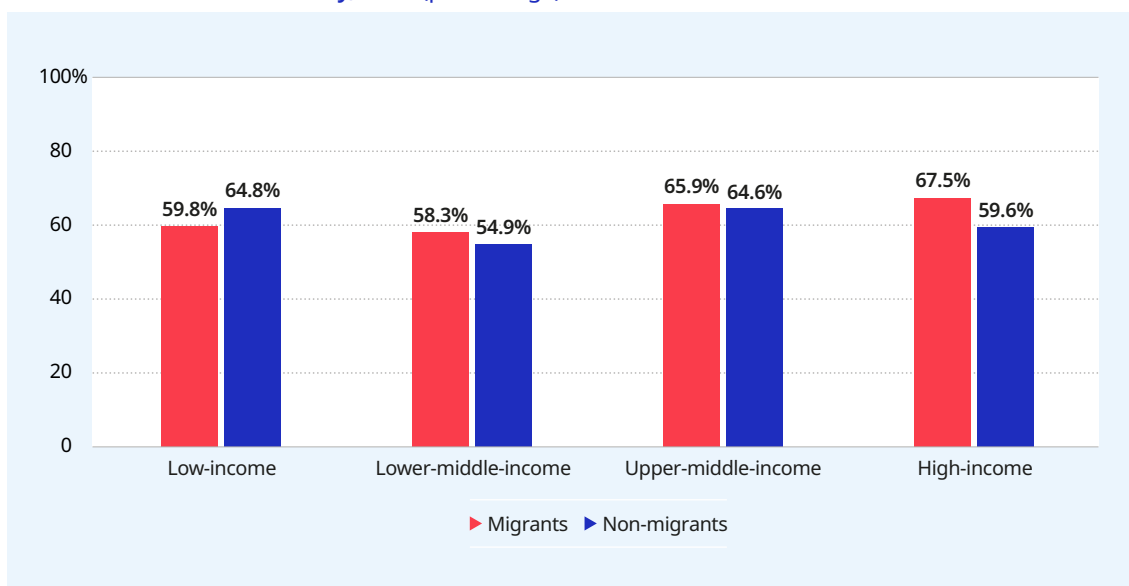
Source: ILO estimates.

► **Figure 16. Proportion of international migrants in total labour force by income level of destination country, 2022 (percentage)**



Source: ILO estimates.

► **Figure 17. Labour force participation rate of international migrants and non-migrants by income level of destination country, 2022 (percentage)**

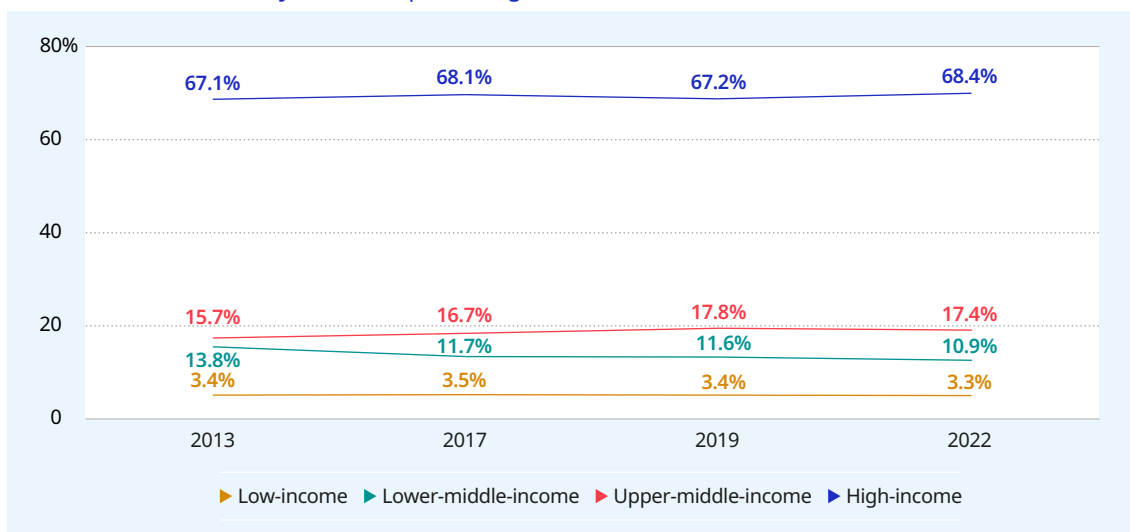


Source: ILO estimates.

High-income countries have remained the primary destinations for international migrants in the labour force. Already in 2013, high-income countries hosted 67 per cent of all migrants in the labour force, representing over four times the share of migrant in the labour force hosted by upper-middle-income

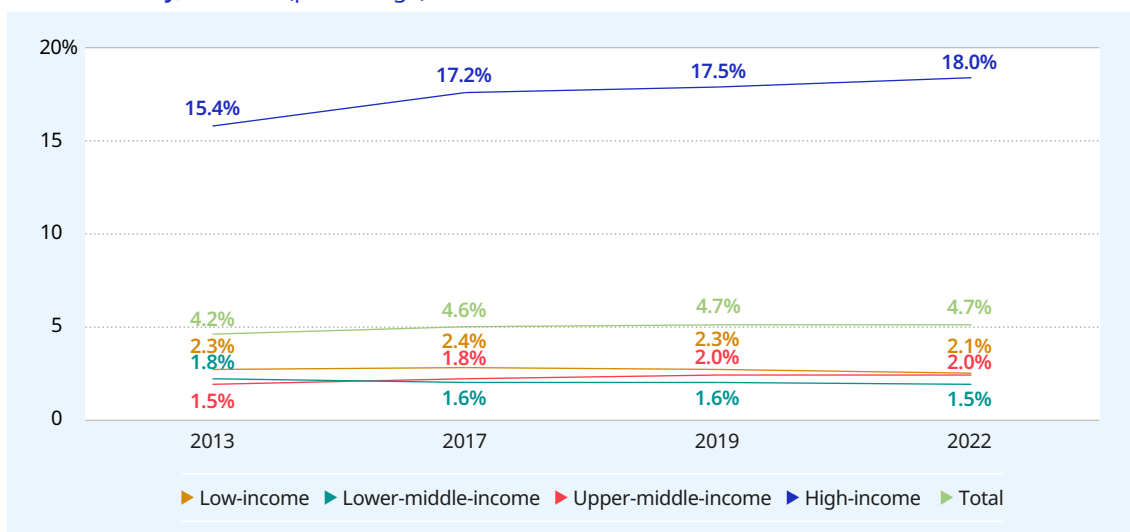
countries, and close to 20 times the share hosted by low-income countries. In 2022, this significant gap remained unchanged, with high-income countries hosting 68.4 per cent of international migrants in the labour force. (see figure 18). Two changes can be observed throughout the 2013–2022 period.

► **Figure 18. Distribution of international migrants in the labour force by income level of destination country, 2013–22 (percentage)**



Source: ILO estimates.

► **Figure 19. Proportion of international migrants in the labour force by income level of destination country, 2013–22 (percentage)**



Source: ILO estimates.

First, the proportion of international migrants in the labour force in upper-middle-income countries increased from 15.7 per cent in 2013 to 17.4 per cent in 2022. Second, there was a simultaneous decline in the share of international migrants in the labour force in lower-middle-income countries for the period, from 13.8 per cent to 10.9 per cent. The growing labour demand in upper-middle-income countries, due to higher levels of economic growth, could be an explanation for this shift.

In 2022, international migrants represented 18 per cent of the labour force in high-income countries, and only 2.1 per cent of the labour force in low-income countries, 1.5 per cent in lower-middle-income countries, and 2 per cent in upper-middle-income countries (see figure 19). Trends since 2013 show a steady growth in the share of migrants in the labour force only in high-income countries. In the other income groups, the share of international migrants in the labour force remained relatively stable.

### 3.1.1. Gender analysis

In 2022, 70.3 per cent of women international migrants in the labour force were located in high-income countries, compared to 67.2 per cent for men (see figure 20). In countries where a greater share of women work, women international migrants in the labour force might also have easier access to labour markets (Moussié 2020). For example, in these economies, childcare facilities and policies encouraging paid work may benefit more women, including migrants.

While migrant men constituted 19.6 per cent of the male labour force in high-income countries in 2022, for migrant women, this share was 16 per cent (see figure 21). Both migrant men and women accounted for no more than 2.3 per cent of the male and female labour force in low-income, lower-middle-income and upper-middle-income countries.

In 2022, except in low-income countries, the labour force participation rate of migrant men was higher than non-migrants (see figure 22). Migrant women had higher labour force participation than non-migrants in high-income (56.0 per cent versus 53.6 per cent) and lower-middle-income countries (40.8 per cent versus 35.4 per cent). Employment prospects in low-income countries for migrant



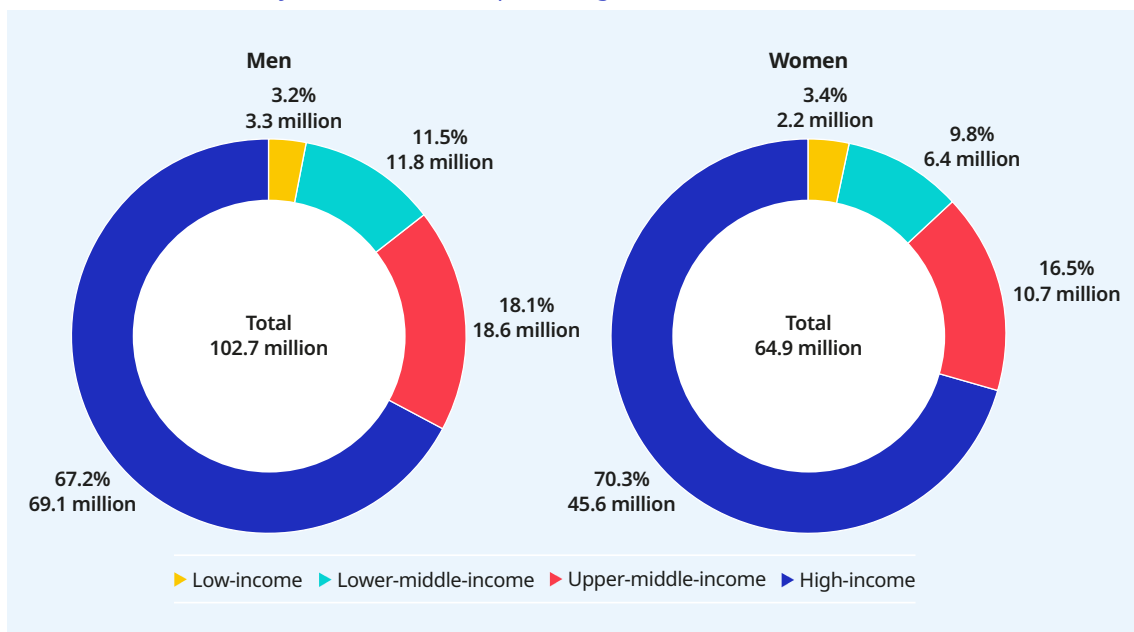
In 2022, 70.3 per cent of women international migrants in the labour force were located in high-income countries, compared to 67.2 per cent for men.

women could be fewer. In upper-middle-income countries, the occupational structure might be skewed in favour of men due to higher availability of industrial jobs.

### 3.1.2. Age composition

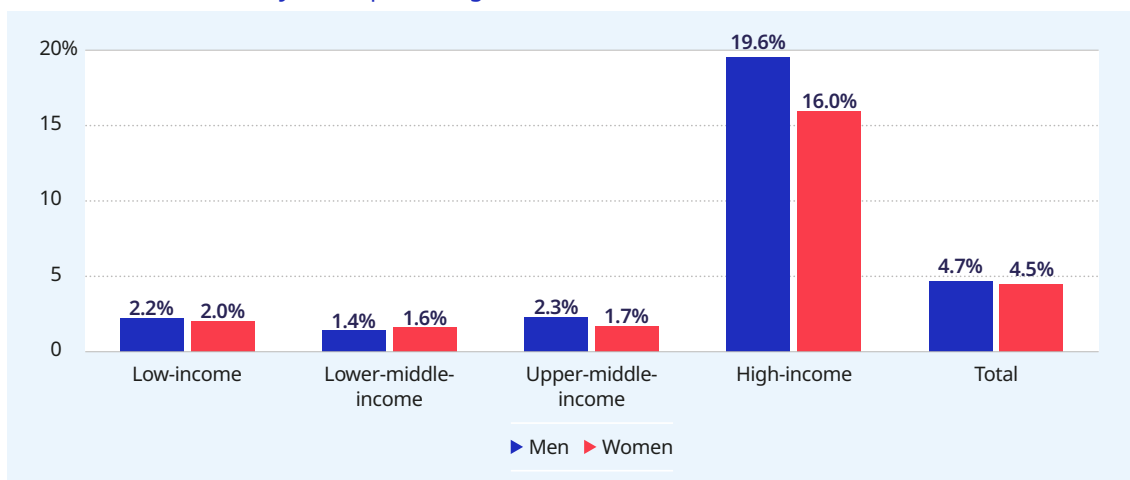
Across all income levels, the prime-age group (25–54) was dominant among international migrants in the labour force. In 2022, this age group accounted for 76.2 per cent of men international migrants in the labour force in high-income countries and 74.6 per cent of women (see figure 23). The proportion of young men international migrants in the labour force (15–24) was highest in low-income countries, at 15.5 per cent, decreasing as the income level of

► **Figure 20. Distribution of international migrants in the labour force by sex and income level of destination country, 2022 (million and percentage)**



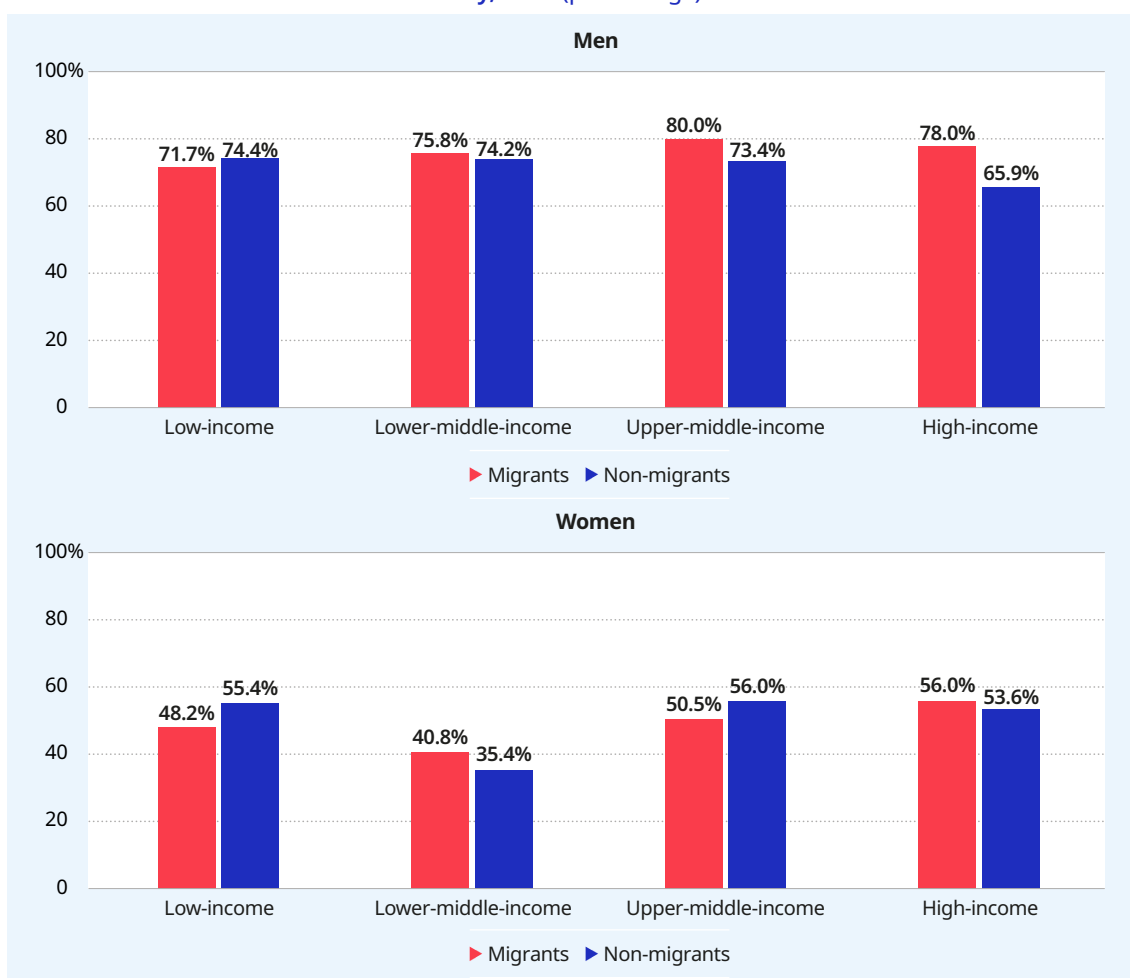
Source: ILO estimates.

► **Figure 21. Proportion of international migrants in total labour force by sex and income level of destination country, 2022 (percentage)**



Source: ILO estimates.

► **Figure 22. Labour force participation rate of international migrants and non-migrants by sex and income level of destination country, 2022 (percentage)**



Source: ILO estimates.

► **Figure 23. Distribution of international migrants in the labour force by sex, age and income level of destination country, 2022 (percentage)**



Source: ILO estimates.

the country rises. The same trend held true for women international migrants in the labour force. The migration policies in high-income and upper-middle-income countries tend to favour skilled and experienced workers, which reduces the proportion of younger, less experienced migrants (Bossavie et al. 2022).

The percentage of international migrants in the labour force aged 65 and older is relatively low

across all income levels for both sexes. Older people are less likely to migrate and might have fewer opportunities in the labour market due to productivity considerations, which could explain the low share of this group in all four income categories. Some of them may retire and go back to their origin countries. They have fewer labour market prospects than the other age groups, hence economic returns on migration are expected to be lower for older workers (Simpson 2022).

## 3.2. Employment of international migrants

### 3.2.1. Employment level and employment-to-population ratio

The large majority of employed international migrants were located in high-income countries. Out of the 155.6 million of employed international

migrant estimated in 2022, 107.5 million (69 per cent) were in high-income countries, 27.7 million (17.8 per cent) in upper-middle-income countries, 15.9 million (10.2 per cent) in lower-middle-income countries and 4.6 million (3 per cent) in low-income countries (see figure 24).

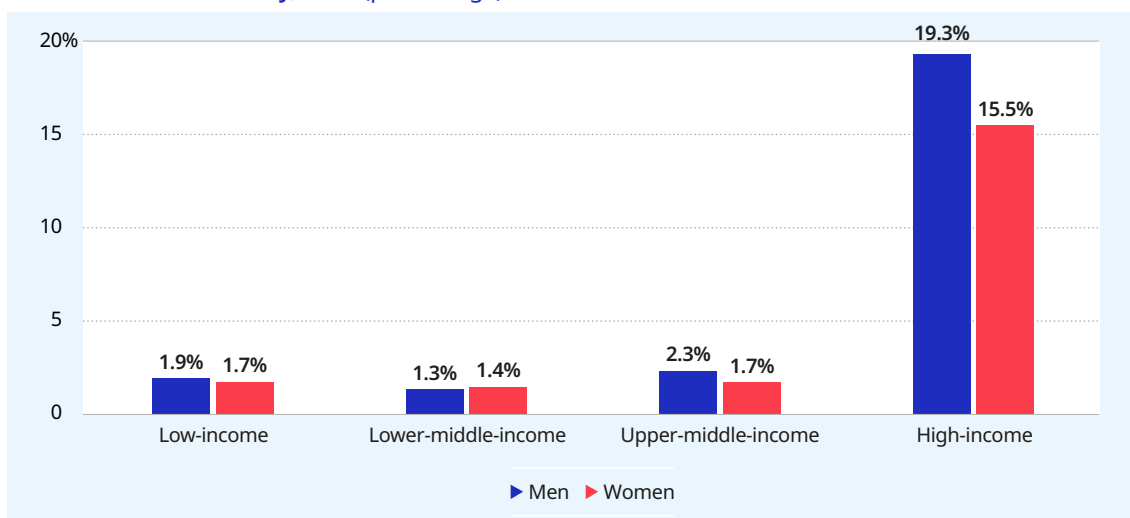
In 2022, the proportion of migrants in total employment was higher in high-income countries, indicating that such countries relied more on migrant labour (see figure 25). In high-income countries, migrant men accounted for 19.3 per cent

► **Figure 24. Employment of international migrants by sex and income level of destination country, 2022 (million)**



Source: ILO estimates.

► **Figure 25. Share of international migrants in employed population by sex and income level of destination country, 2022 (percentage)**



Source: ILO estimates.

of total male employment and migrant women for 15.5 per cent. In the other country income levels, the share of migrants in total employment in 2022 was lower and did not exceed 2.3 per cent.

Across most income levels, the share of migrants in the employed population was slightly higher for men compared to women. The larger proportion of migrant men in employment in high-income countries could be due to the high demand for labour in sectors such as construction and manual occupations, often filled by migrant men (ILO 2018a, 2021a).

In 2022, in high-income and upper-middle-income countries, the employment-to-population ratio of migrants was higher than non-migrants, which meant that a larger proportion of working-age migrants were employed compared to non-migrants. This could be attributed to labour

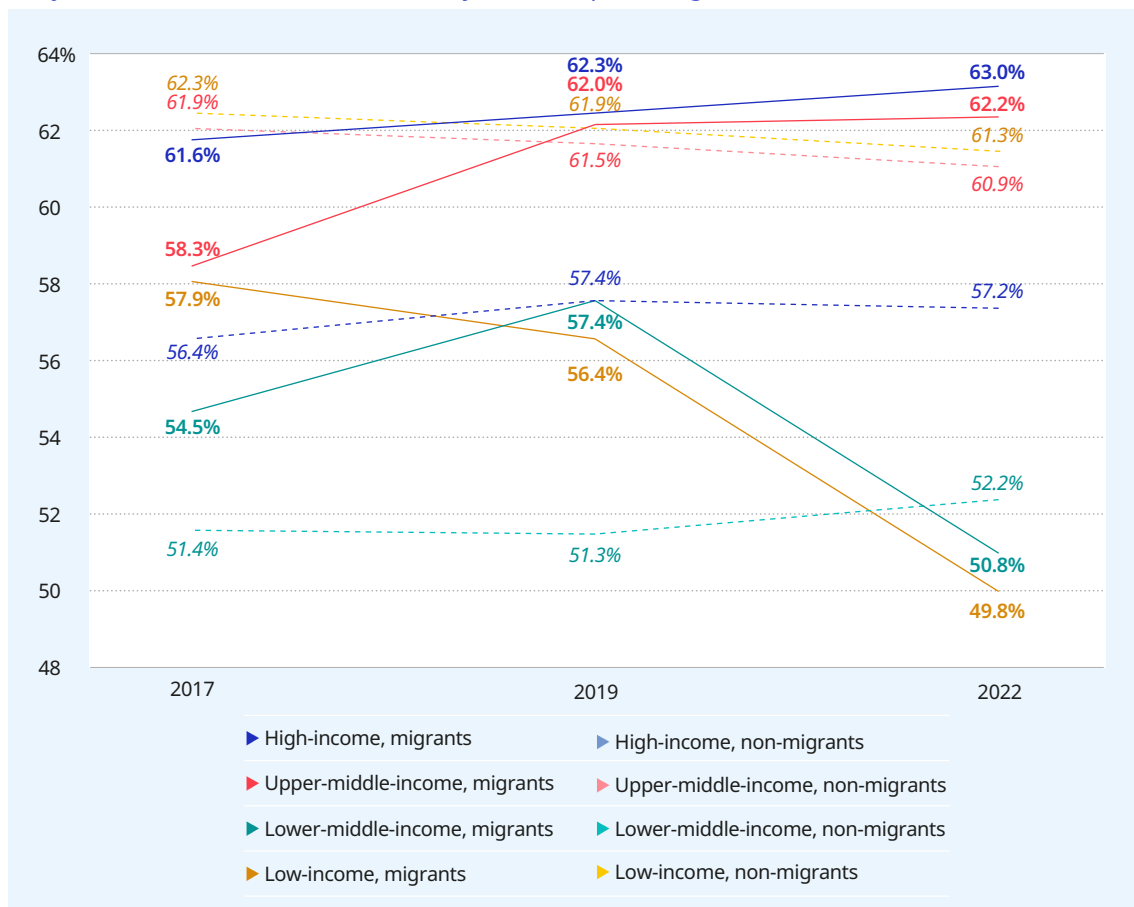


In 2022, 69 per cent of the 155.6 million employed international migrants were in high-income countries.

market demand (World Bank 2018) and the nature of migration policies (OECD/ILO 2019; World Bank 2023). In both these country income levels, the employment-to-population ratio of migrants remained stable between 2017 and 2022 (see figure 26).

A contrasting picture was observed in low-income and lower-middle-income countries, where the employment-to-population ratio of migrants was lower than that of non-migrants, indicating that a smaller proportion of the migrant population was

► **Figure 26. Employment-to-population ratio of international migrants and non-migrants by income level of destination country, 2017–22 (percentage)**



**Note:** Available national data insufficient for 2013 estimation.

**Source:** ILO estimates.

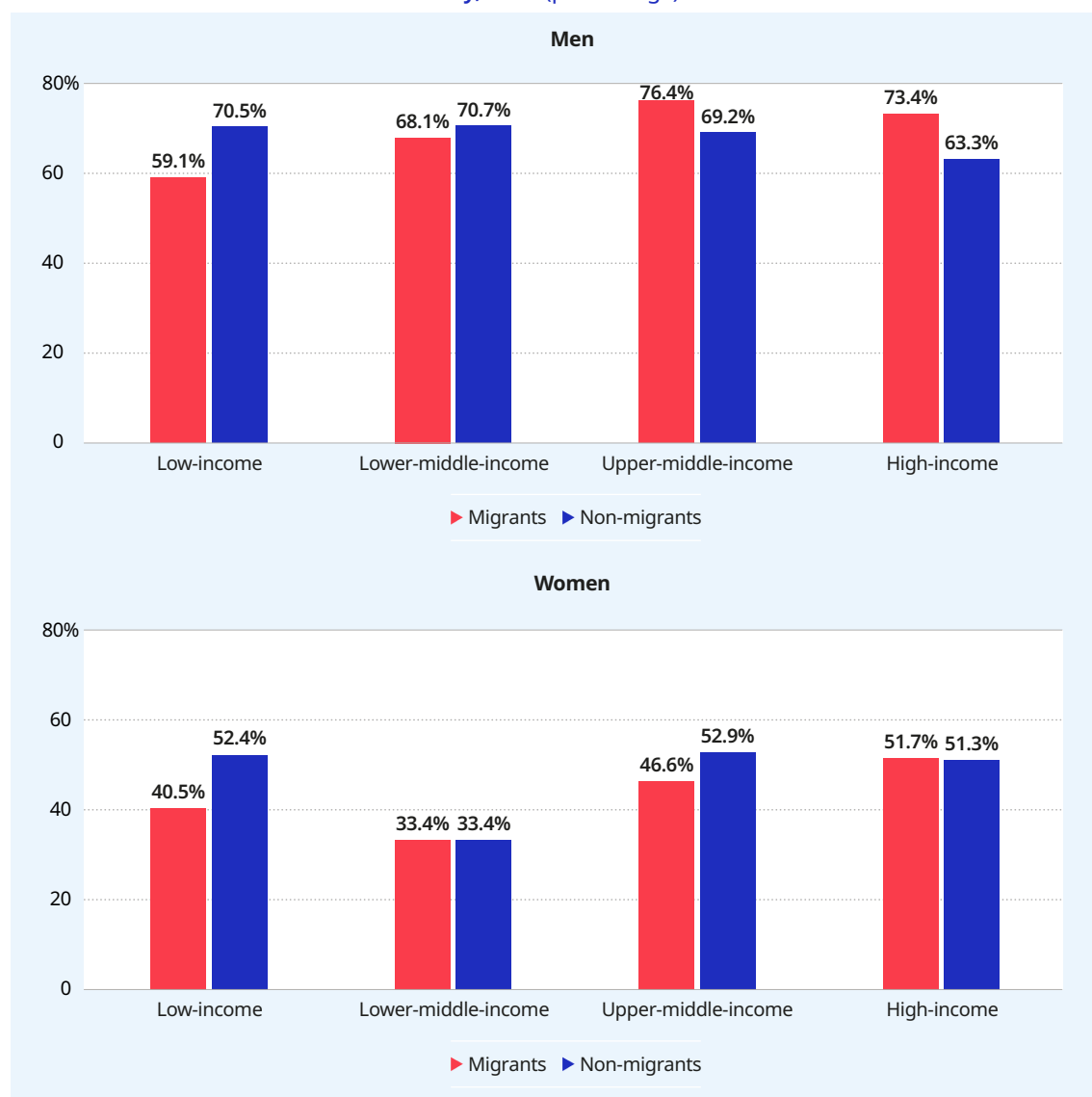
employed in those countries compared to non-migrants. This could be attributed to the reduced availability of job opportunities for international migrants. From 2017 to 2022, the employment-to-population ratio of migrants sharply decreased from 57.9 per cent to 49.8 per cent in low-income countries and from 54.5 per cent to 50.8 per cent in lower-middle-income countries. This could be attributed, among other factors, to the COVID-19 pandemic.

In 2022, for migrant men, their employment-to-population ratio was higher in high-income and

upper-middle-income countries compared to non-migrant men (see figure 27). For women, migrants and non-migrants have comparable employment-to-population ratios in high-income and lower-middle-income countries. Migrant women have lower ratios in upper-middle-income and low-income countries, compared to their non-migrant counterparts.

In 2022, international migrant women had significantly lower employment-to-population ratios than men across all income levels, which indicates that they face greater challenges to

► **Figure 27. Employment-to-population ratio of international migrants and non-migrants by sex and income level of destination country, 2022 (percentage)**



Source: ILO estimates.



In 2022, only 51.7 per cent of migrant women of working age were employed, compared to 73.4 per cent of migrant men.

secure and retain employment. In high-income countries, where the proportion of migrant women in employment was the highest, only 51.7 of migrant women of working age were employed compared to 73.4 per cent of migrant men. Migrant women often face multiple layers of difficulties in the labour market based on both their gender and migrant status, which manifest in various ways, such as biases in recruitment practices and limited access to higher quality jobs (Schieckoff and Sprengholz 2021). The challenges faced by migrant women could be the outcome of socio-cultural norms restricting their employment, the higher likelihood of engaging in unpaid domestic work and the absence of affordable childcare (Rendall et al. 2010).

### 3.2.2. Employed international migrants by broad category of economic activity

In 2022, and in all income levels, most migrant men were employed in services: 66.9 per cent in high-income countries, 47.7 per cent in upper-middle-income countries, 45.2 per cent in lower-middle-income countries and 58.5 per cent in low-income countries (see figure 28). A significant portion of migrant men were employed in industry in upper-middle-income (42.7 per cent) and high-income countries (30.2 per cent). In low-income and lower-middle-income countries, a sizeable share of migrant men was employed in agriculture, 24.7 per cent and 28.6 per cent, respectively.

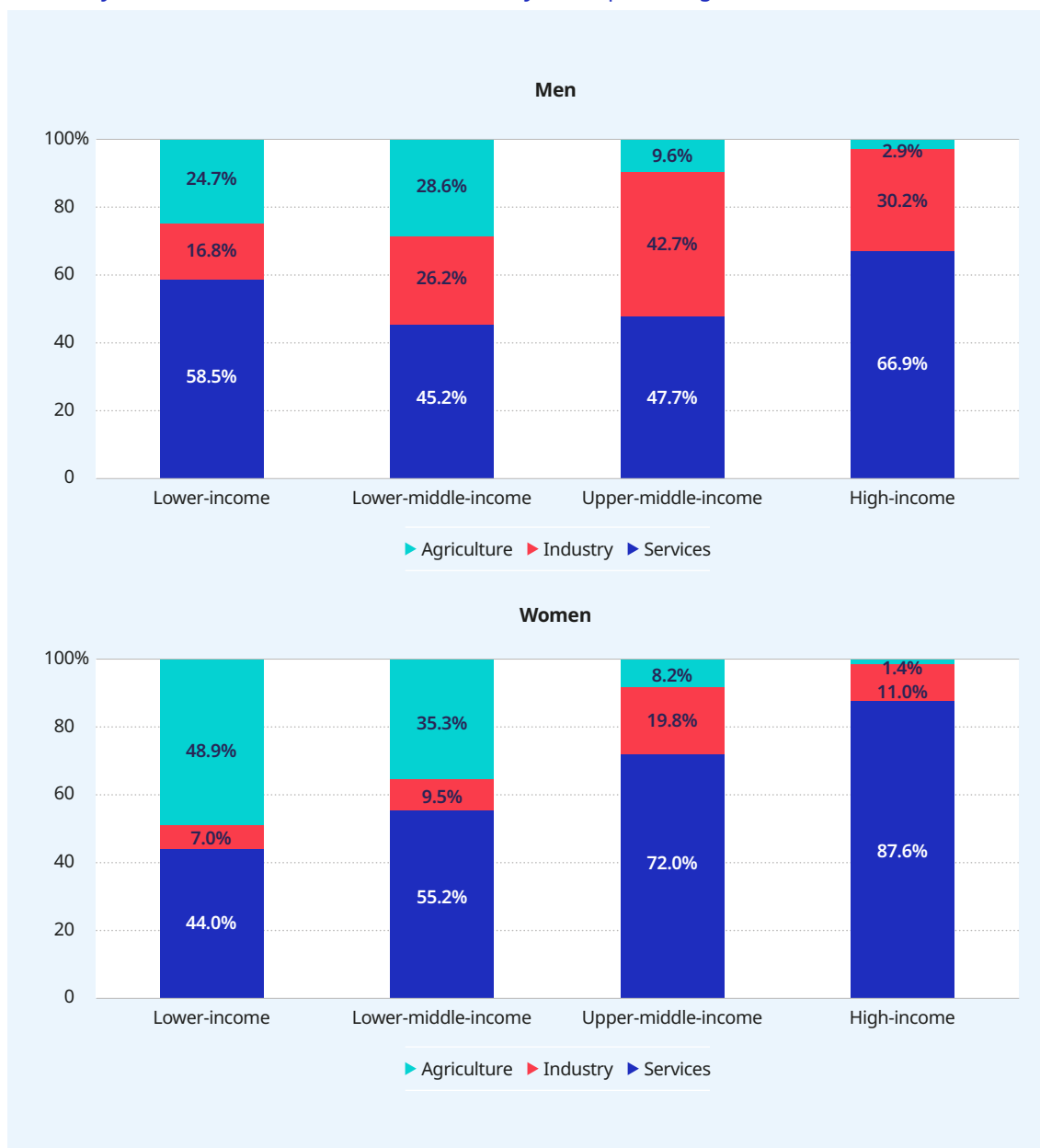
With regard to migrant women in 2022, services remained the most important sector of employment in all income levels, except low-income countries: 87.6 per cent in high-income, 72 per cent in upper-middle-income, 55.2 per cent in lower-middle-income. Only a small share of migrant women was employed in industry, except for upper-middle-income. Employment in agriculture for migrant women was significant in low-income and lower-middle-income countries, at 48.9 per cent and 35.3 per cent, respectively.

These figures indicate that as countries move from low-income to high-income categories, employment for both migrant men and women shifts dramatically from agriculture to services, with industry playing a larger role in upper-middle-income countries. The traditional development path of economies follows a sectoral shift from agriculture to services, and industrial employment is also considerable at higher income levels (ILO 2021a).

Nonetheless, there are a few differences between the employment patterns of migrant men and women. Migrant men are more likely to be employed in industry than migrant women (Sorgner 2011). The large share of migrant women in services in high-income and upper-middle-income countries could be due to the extensive development of this sector and employment opportunities in occupations such as healthcare and domestic work, where migrant women are heavily represented.

Structural economic shifts in high-income countries from manufacturing to services have historically opened more employment opportunities for women (Akbulut 2011). Men are more likely to be employed in formal jobs once countries reach upper-middle-income levels (Kappel 2021), and these jobs are often concentrated in industry and high-paying services sectors.

► **Figure 28. Distribution of employed international migrants by sex, broad category of economic activity and income level of destination country, 2022 (percentage)**



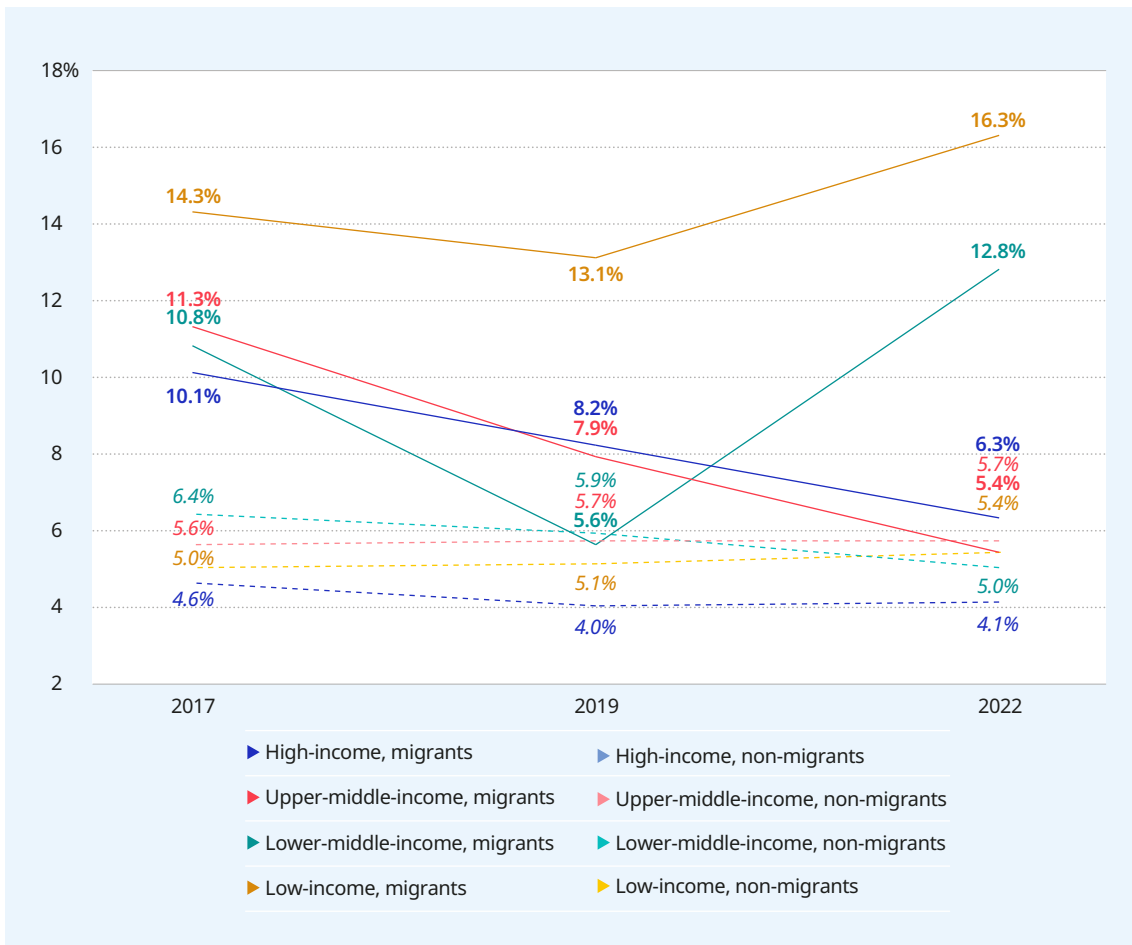
Source: ILO estimates.

### 3.3. Unemployment of international migrants

In 2022, the unemployment rate of international migrants in high-income countries was 6.3 per cent, 5.4 per cent in upper-middle-income, 12.8 per cent in lower-middle-income and 16.3 per cent in low-income (see figure 29). Migrants are generally more likely to be unemployed than non-migrants.

In high-income and upper-middle-income countries, the unemployment rate for migrants decreased between 2017 and 2022, from 10.1 per cent to 6.3 per cent, and 11.3 per cent to 5.4 per cent, respectively. In lower-middle-income countries, more fluctuations can be seen as the unemployment rate for the migrants declined from 10.8 per cent in 2017 to 5.6 per cent in 2019, but then increased rapidly to 12.8 per cent in 2022. The

► **Figure 29. Unemployment rate of international migrants and non-migrants by income level of destination country, 2017–22 (percentage)**



**Note:** Available national data insufficient for 2013 estimation.

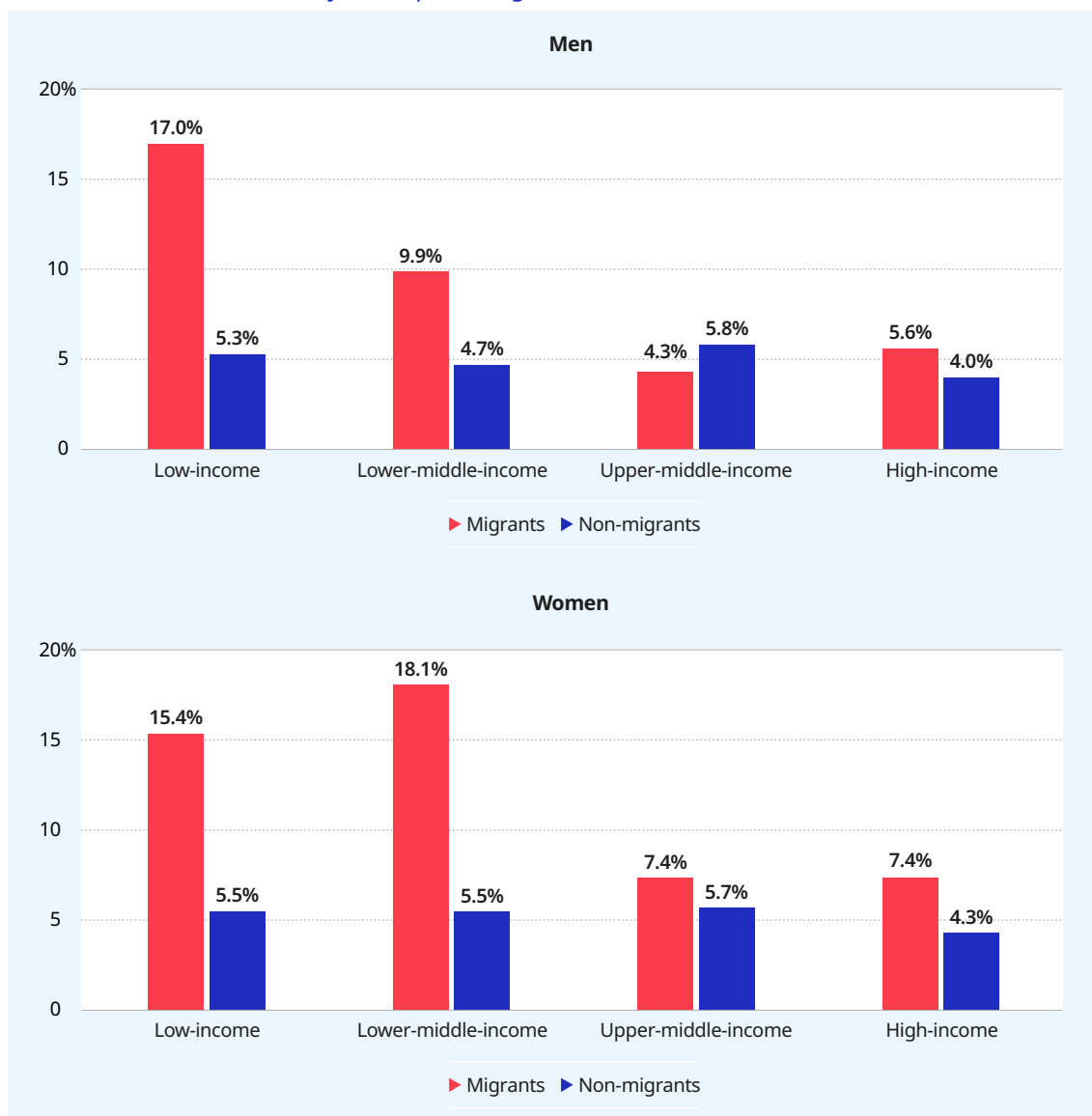
**Source:** ILO estimates.

unemployment rate for migrants slightly increased in low-income countries between 2019 and 2022.

In 2022, migrant men had higher unemployment rates than non-migrants, except in upper-middle-income countries (see figure 30). The unemployment rate for migrant men in upper-middle-income countries was 4.3 per cent, compared to 5.8 per cent for non-migrant men. For migrant women, the unemployment rate was higher compared to non-migrant women in all income levels. Much larger differences in unemployment rates between migrant and non-migrants are observed for both women and men in low-income and lower-middle-income countries, suggesting that migrants face more significant challenges obtaining employment in these destinations compared to upper-middle-income and high-income countries.

► In 2022, the unemployment rate of international migrants in high-income countries was 6.3 per cent, 5.4 per cent in upper-middle-income, 12.8 per cent in lower-middle-income and 16.3 per cent in low-income.

► **Figure 30. Unemployment rate of international migrants and non-migrants by sex and income level of destination country, 2022 (percentage)**



**Source:** ILO estimates.

Both migrant men and women might be encountering a lack of recognition of their skills and qualifications, as well as more limited social networks, which hinder their integration into the labour market (Aguilera and Massey 2003; Friedberg 2000). While some migrants may find low-skilled employment in high-income countries, these positions have little job security, which might raise

the rate of unemployment among migrants when these temporary or informal jobs end. Migrants may encounter even more intense competition for work in low-income and middle-income countries due to the characteristics of labour demand. Economic volatility and limited labour protection may also make them more susceptible to unemployment (Betcherman 2012; Lam and Elsayed 2022).

## ► 4. Estimates by region and subregion

This section presents the estimates of the stock of international migrants in the labour force, employed international migrants and unemployed international migrants by ILO regions and broad subregions. Countries are grouped into 5 regions and 11 broad subregions according to the ILO geographical classification (see Annex A).

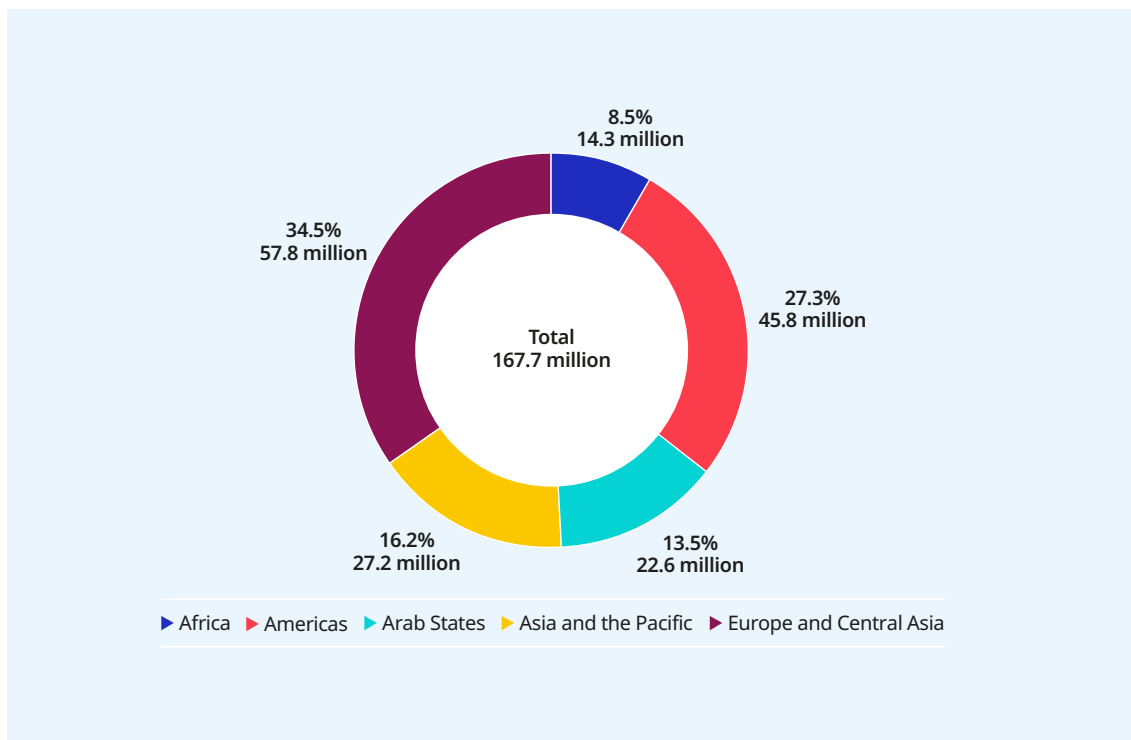
### 4.1. International migrants in the labour force

In 2022, international migrants in the labour force were concentrated in Europe and Central Asia, accounting for 34.5 per cent of them (57.8 million), followed by the Americas at 27.3 per cent (45.8 million), Asia and the Pacific at 16.2 per cent (27.2 million), the Arab States at 13.5 per cent (22.6 million) and Africa at 8.5 per cent (14.3 million) (see figure 31).

The distribution across 11 subregions shows that the majority of the international migrants in the labour force in 2022 resided in Northern, Southern and Western Europe (23.3 per cent) Northern America (22.6 per cent) and the Arab States (13.5 per cent) (see figure 32). Collectively, these three regions hosted 59.4 per cent of all international migrants in the labour force.

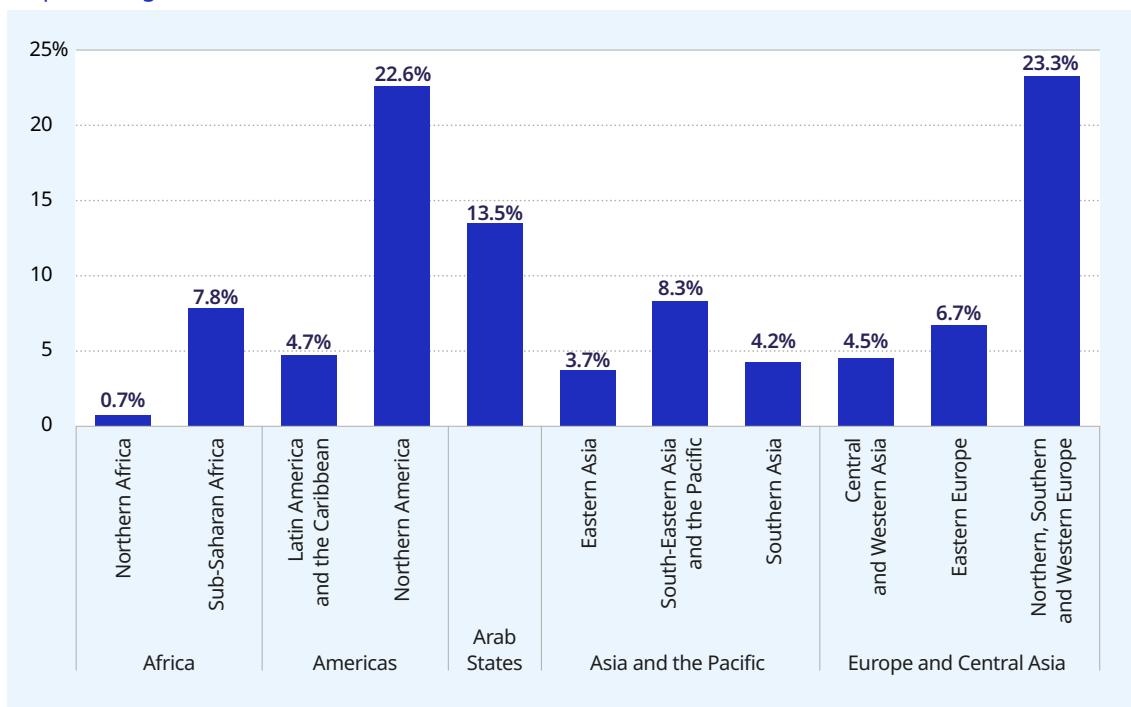
From 2013 to 2022, the distribution of international migrants in the labour force by region remained relatively stable (see table 2). Northern, Southern and Western Europe, Northern America and the Arab States continued to hold a comparatively high number of international migrants in the labour force. The distribution of international migrants in the labour force in Northern, Southern and Western Europe increased marginally between 2013 and 2022, from 22.5 per cent to 23.3 per cent, partly because of changes in the migration policy to accommodate growing labour market

► Figure 31. International migrants in the labour force by region, 2022 (million and percentage)



**Note:** For estimates by broad subregion, see table D5, Annex D.

**Source:** ILO estimates.

► **Figure 32. Distribution of international migrants in the labour force by broad subregion, 2022**  
(percentage)

Source: ILO estimates.

► **Table 2. Distribution of international migrants in the labour force by broad subregion, 2013–22**  
(percentage)

Region	Broad subregion	2013	2017	2019	2022
Africa	Northern Africa	0.6	0.7	0.7	0.7
	Sub-Saharan Africa	7.3	8.0	8.2	7.8
Americas	Latin America and the Caribbean	3.1	3.0	3.9	4.7
	Northern America	23.8	23.7	22.6	22.6
Arab States	Arab States	13.2	13.8	13.7	13.5
Asia and the Pacific	Eastern Asia	3.7	3.8	3.4	3.7
	South-Eastern Asia and the Pacific	7.6	7.9	7.9	8.3
	Southern Asia	6.0	5.1	4.7	4.2
Europe and Central Asia	Central and Western Asia	3.9	4.2	4.5	4.5
	Eastern Europe	8.2	7.6	7.3	6.7
	Northern, Southern and Western Europe	22.5	22.3	23.0	23.3
Total		100	100	100	100

Source: ILO estimates.

demands (OECD 2023). In Northern America, the proportion of international migrants in the labour force decreased from 23.8 per cent in 2013 to 22.6 per cent in 2022, which could be the outcome of the nature of migration policies over the years. The share of international migrants in the labour force in the Arab States slightly decreased from 13.8 per cent in 2017 to 13.5 per cent in 2022. Among the other subregions, South-Eastern Asia and the Pacific, as well as Central and Western Asia, experienced an increase in the share of international migrants in the labour force.

In 2022, international migrants represented more than one third of the labour force of the Arab States (37.2 per cent). Europe and Central Asia (12.9 per cent) and the Americas (9.0 per cent) also had significant proportion of migrants in their labour force (see figure 33).

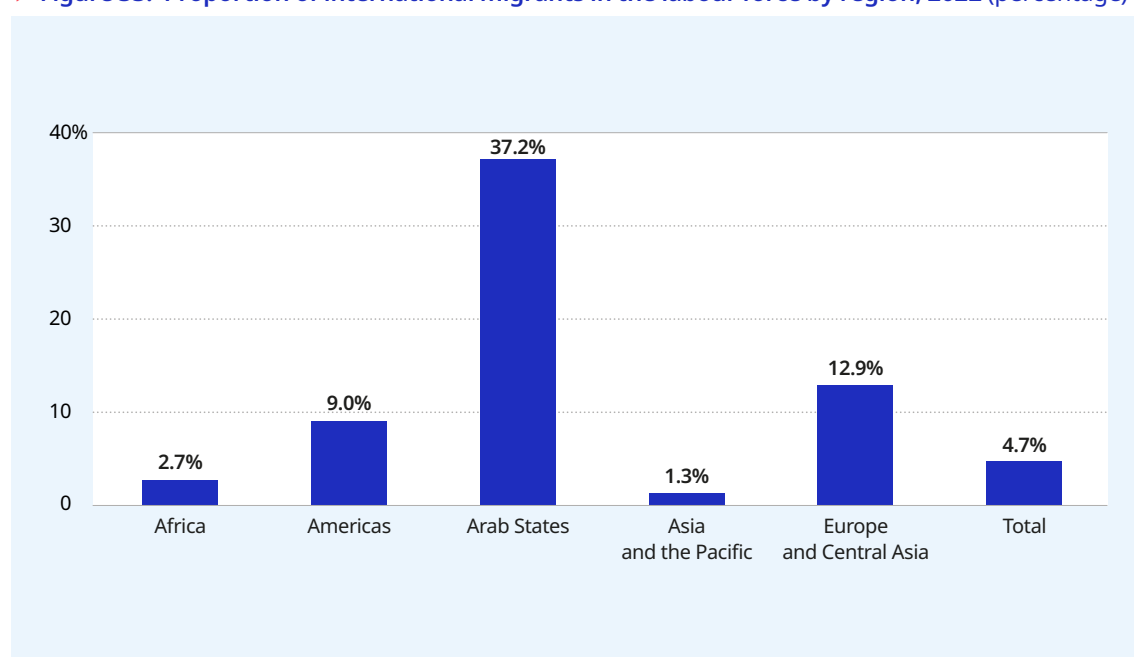
At the subregional level, following the Arab States, Northern America (19.8 per cent) and Northern, Southern and Western Europe (17.4 per cent) had

the highest proportion of migrants in their labour force (see table 3). From 2013 to 2022, this pattern remained stable at the subregional level.

At the regional level, figure 34 shows the labour force participation rates of international migrants and non-migrants. In all regions, international migrants have higher labour force participation rates, compared to non-migrants.

In 10 of the 11 subregions, the labour force participation rate of migrants is higher than that of non-migrants, with the exception of Eastern Europe (see figure 35). At 73.9 per cent, the Arab States had the highest labour force participation rate among migrants. The economic growth and heavy reliance of international migrants in the labour force to meet the growing labour demand in the region were the main drivers of this pattern (Wagle 2024). The lowest labour force participation rate for migrants was 46.5 per cent in North Africa, which could be attributed, among other factors, to transit migration.<sup>8</sup>

► **Figure 33. Proportion of international migrants in the labour force by region, 2022 (percentage)**



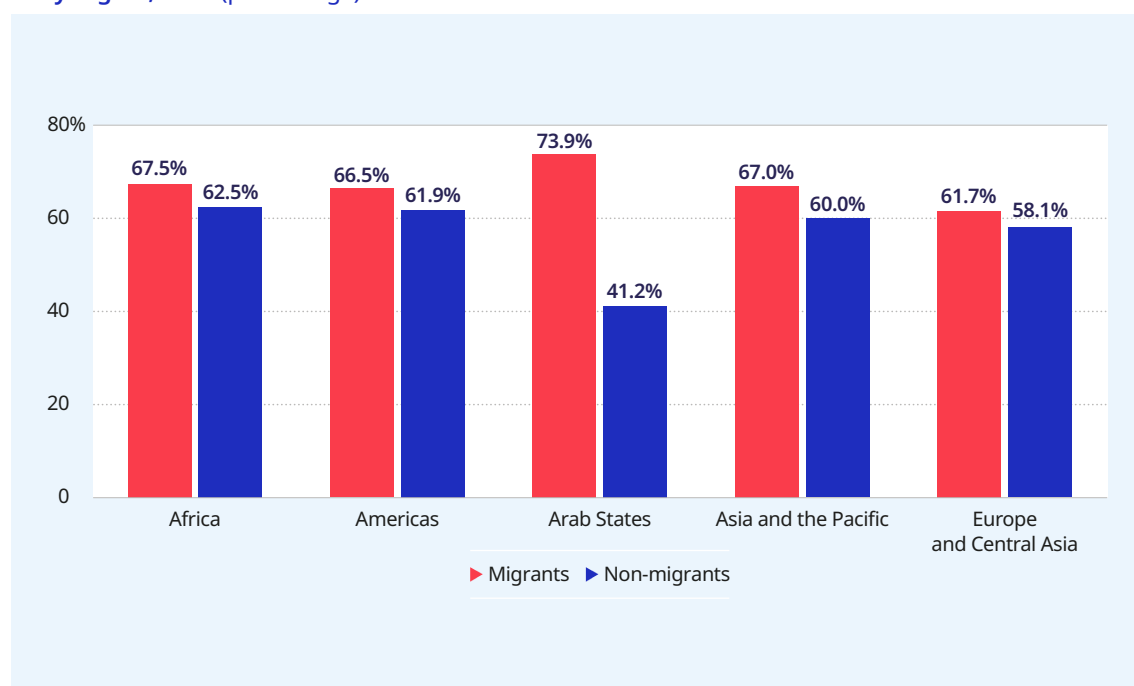
**Source:** ILO estimates.

8 See <https://www.migrationdataportal.org/regional-data-overview/northern-africa>.

► **Table 3. Proportion of international migrants in the labour force by broad subregion, 2013–22 (percentage)**

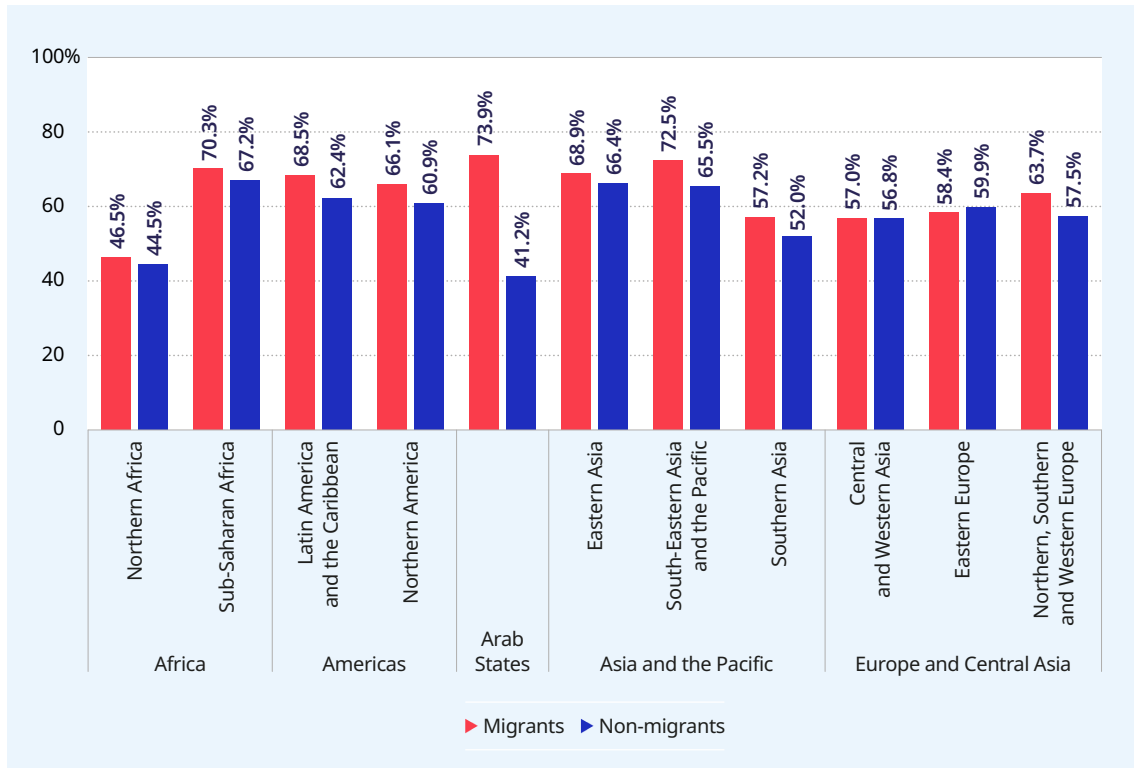
Region	Broad subregion	2013	2017	2019	2022
Africa	Northern Africa	1.2	1.4	1.6	1.5
	Sub-Saharan Africa	2.8	3.2	3.2	2.9
Americas	Latin America and the Caribbean	1.5	1.6	2.1	2.5
	Northern America	18.2	19.9	19.5	19.8
Arab States	Arab States	36.7	39.9	39.3	37.2
Asia and the Pacific	Eastern Asia	0.6	0.6	0.6	0.7
	South-Eastern Asia and the Pacific	3.2	3.6	3.7	3.9
	Southern Asia	1.3	1.1	1.1	0.9
Europe and Central Asia	Central and Western Asia	7.8	8.9	9.7	9.5
	Eastern Europe	7.6	8.1	8.2	7.8
	Northern, Southern and Western Europe	14.3	15.9	17	17.4
Total		4.2	4.6	4.7	4.7

Source: ILO estimates.

► **Figure 34. Labour force participation rate of international migrants and non-migrants by region, 2022 (percentage)**

Source: ILO estimates.

► **Figure 35. Labour force participation rate of international migrants and non-migrants by broad subregion, 2022 (percentage)**



Source: ILO estimates.

#### 4.1.1. Gender analysis

In 2022, Europe and Central Asia hosted around one third of international migrant men in the labour force (31.7 per cent), and the Americas one quarter (25.2 per cent). The Arab States accounted for 18.7 per cent of migrant men in the labour force, followed by Asia and the Pacific with 15.7 per cent, and Africa with 8.6 per cent (see figure 36). Migrant women in the labour force are concentrated in Europe and Central Asia (38.8 per cent) and the Americas (30.5 per cent). Asia and the Pacific accounted for 17.1 per cent of migrant women in the labour force, Africa for 8.3 per cent, and the Arab States for 5.2 per cent.

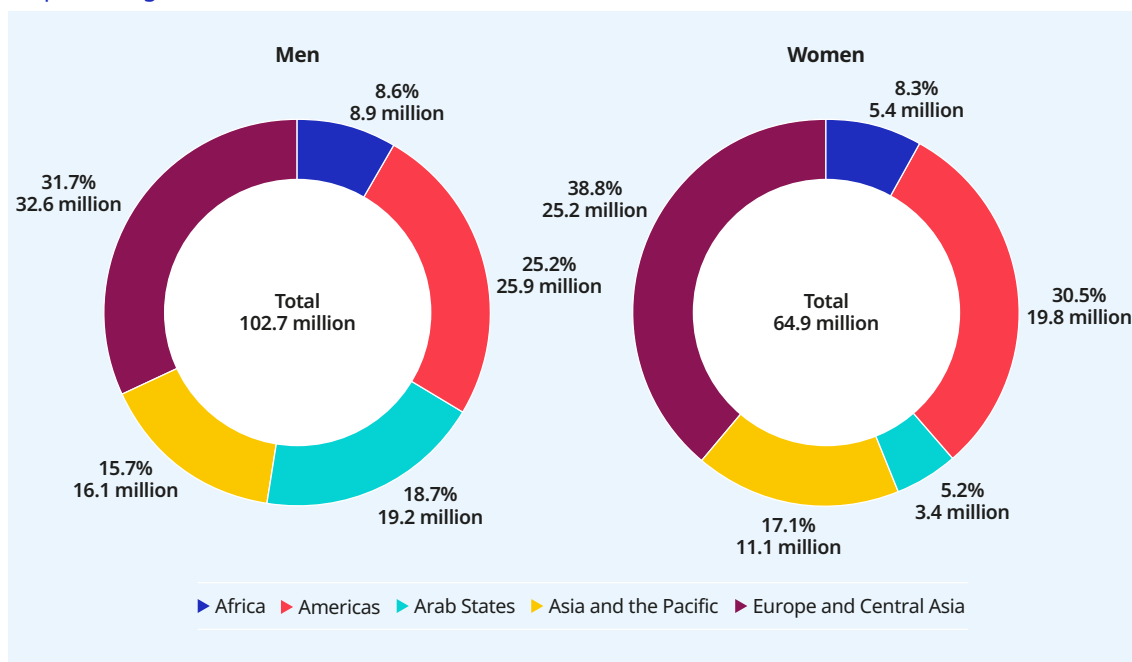
At the subregional level, the Arab States, Northern America and Northern, Southern and Western Europe together accounted for 58.2 per cent of the women international migrants in the labour force and 60.2 per cent of the men international migrants in the labour force (see figure 37). Men international migrants in the labour force are equally distributed throughout these three subregions at around 20 per cent. However, women international migrants in the

labour force are mostly concentrated in Northern America (25.7 per cent) and Northern, Southern and Western Europe (27.3 per cent). In fact, the Arab States hosted one of the lowest shares of women international migrants in the labour force in 2022 (5.2 per cent). This was also the case in previous years and may be explained by fewer employment options outside of the care industry, and domestic work in particular (Esim and Smith 2004; ILO 2021a; Kagan 2017).



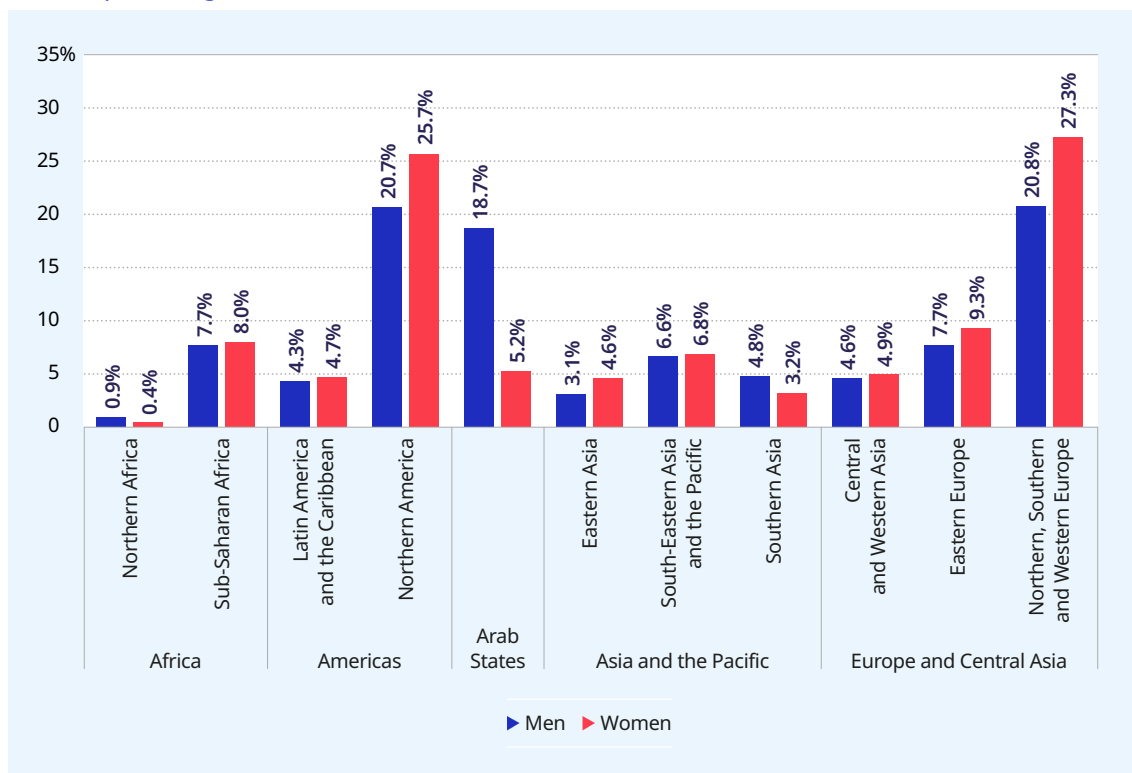
Women international migrants in the labour force are mostly concentrated in Northern America (25.7 per cent) and Northern, Southern and Western Europe (27.3 per cent).

► **Figure 36. Distribution of international migrants in the labour force by sex and region, 2022 (percentage)**



Source: ILO estimates.

► **Figure 37. Distribution of international migrants in the labour force by sex and broad subregion, 2022 (percentage)**



Source: ILO estimates.

In 2022, the Arab States had the highest share of international migrants in their labour force, with migrant men representing 38.5 per cent of male labour force, and migrant women 31.1 per cent of the female labour force. The lowest proportion of migrants in the total labour force was observed in Asia and the Pacific, with 1.3 per cent of male labour force and 1.5 per cent of female labour force (see figure 38).

At the subregional level, in Northern America and Northern, Southern and Western Europe, migrant men represented 20.6 per cent and 17.9 per cent of the male labour force respectively (see table D5 in Annex D). The share of migrant men in the labour force of Eastern Europe and Central and Western Asia is also noteworthy at 9.0 and 9.3 per cent, respectively. With regard to women international migrants in the labour force, the highest proportion was observed in the Arab States, where migrants comprised 31.1 per cent of the female labour force in 2022, followed by 18.7 per cent in Northern America and 16.9 per cent in Northern, Southern and Western Europe. In addition, 9.8 per cent of the labour force in Central and Western Asia was migrant women in 2022, which is quite substantial.

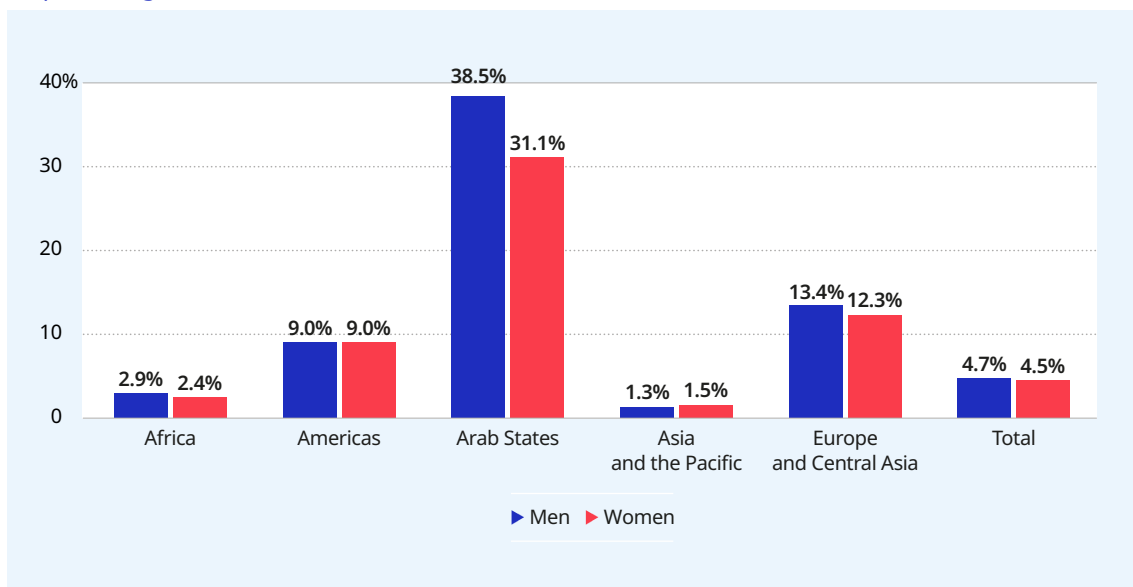
In 2022, migrant men had higher labour force participation rate than non-migrant men in all subregions, except in Northern Africa and Central and Western Asia (see figure 39). The Arab States



In 2022, the Arab States had the highest share of international migrants in their labour force.

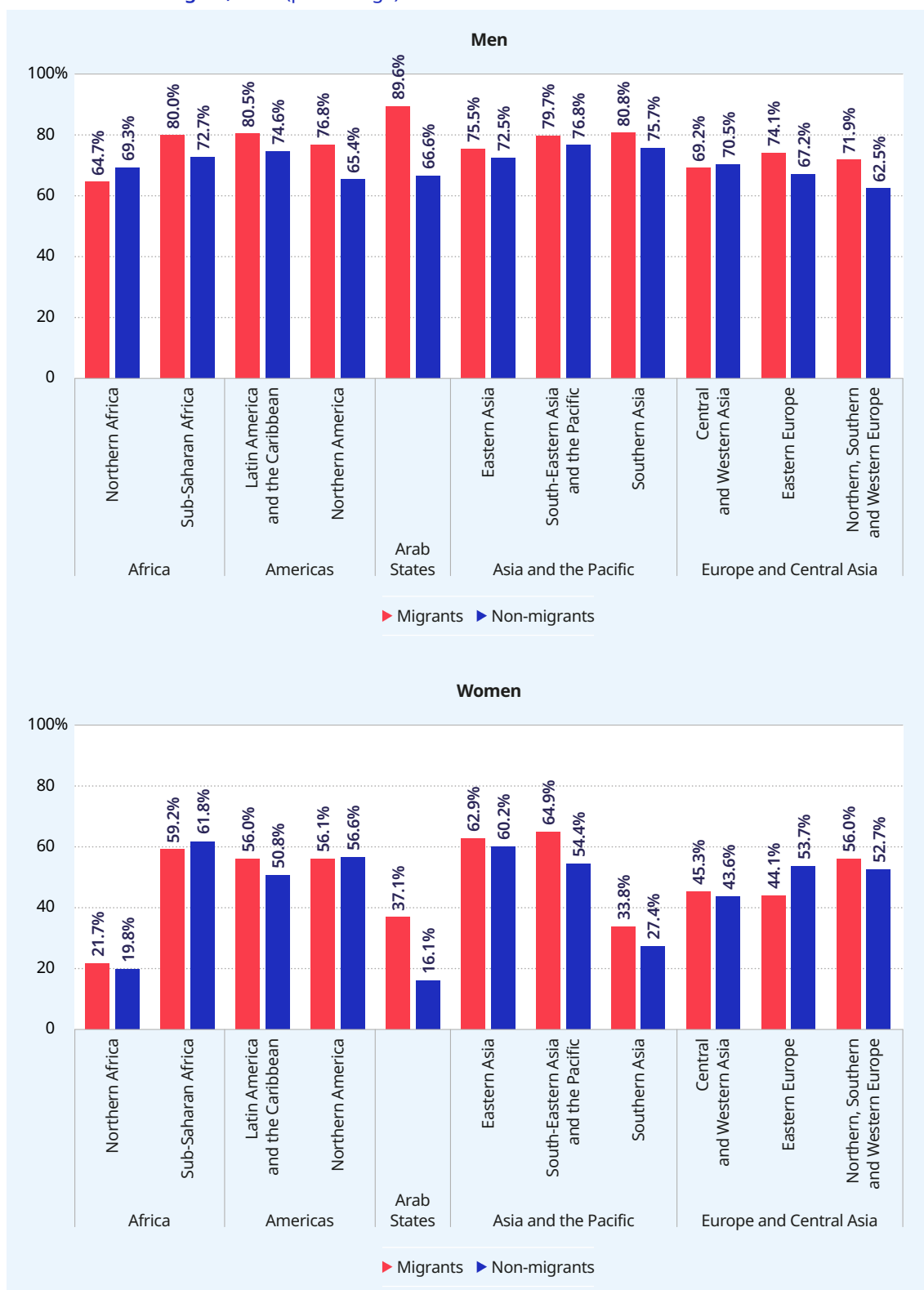
had the highest labour force participation rate of migrant men (89.6 per cent). With regard to migrant women, relative to non-migrants, migrant labour force participation was higher in all subregions, except in Eastern Europe, Northern America and sub-Saharan Africa. With 64.9 per cent of migrant women participating in the labour force, South-Eastern Asia and the Pacific region had the highest rate in 2022. This could be attributed to the growing need for labour in female-dominated industries in the subregion, such as healthcare, domestic work and textiles (UN Women 2017). The participation rate of migrant women was 56.0 per cent in Northern, Southern and Western Europe. Even though the labour force participation rate of migrant women in the Arab States was significantly greater (37.1 per cent) than those of non-migrant women (16.1 per cent), it is nevertheless lower than in many other subregions. Restrictive gender policies and legal practices prevent more women from entering the labour force in the subregion (Liloia 2020).

► **Figure 38. Proportion of international migrants in total labour force by sex and region, 2022 (percentage)**



Source: ILO estimates.

► **Figure 39. Labour force participation rate of international migrants and non-migrants by sex and broad subregion, 2022 (percentage)**



**Note:** For a breakdown by ILO region, see figure D3, Annex D.

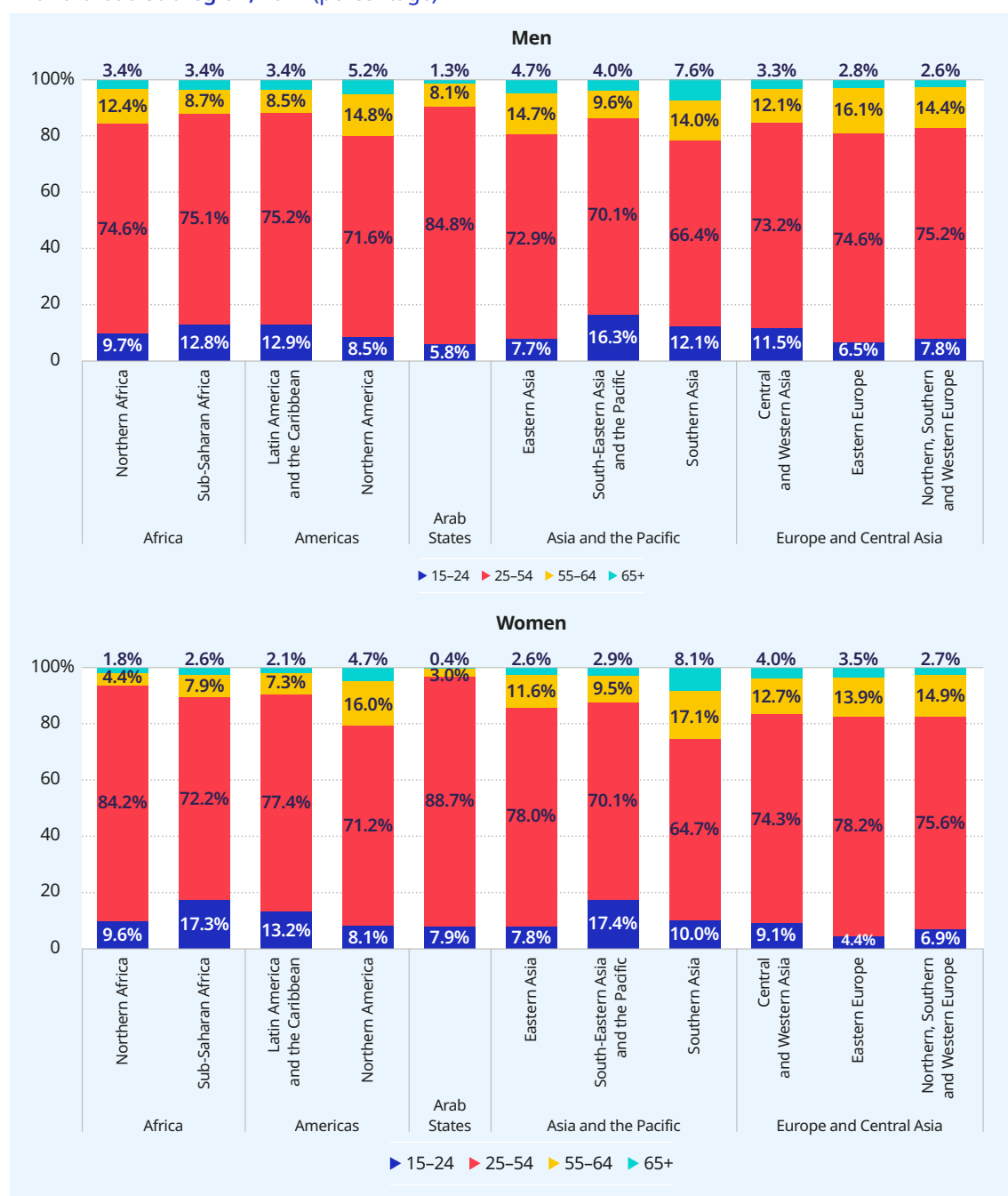
**Source:** ILO estimates.

### 4.1.2. Age composition

In all 11 subregions, prime-age individuals (25–54) comprise the majority of men and women international migrants in the labour force (see

figure 40). The Arab States host the largest share of prime-age international migrants in the labour force of both sexes. Younger individuals (15–24) have a high representation among men international migrants in the labour force in South-

► **Figure 40. Distribution of international migrants in the labour force by sex, age and broad subregion, 2022 (percentage)**



**Note:** For estimates for both sexes combined, see table D6, Annex D. For a breakdown by ILO region, see figure D4, Annex D.

**Source:** ILO estimates.



Across all subregions, prime-age individuals represented the majority of men and women international migrants in the labour force.

Eastern Asia and the Pacific (16.3 per cent), followed by Latin America and the Caribbean (12.9 per cent) and sub-Saharan Africa (12.8 per cent). In case of young women international migrants in the labour force, the same three subregions stand out.

## 4.2. Employment of international migrants by region and subregion

### 4.2.1. Employment level and employment-to-population ratio

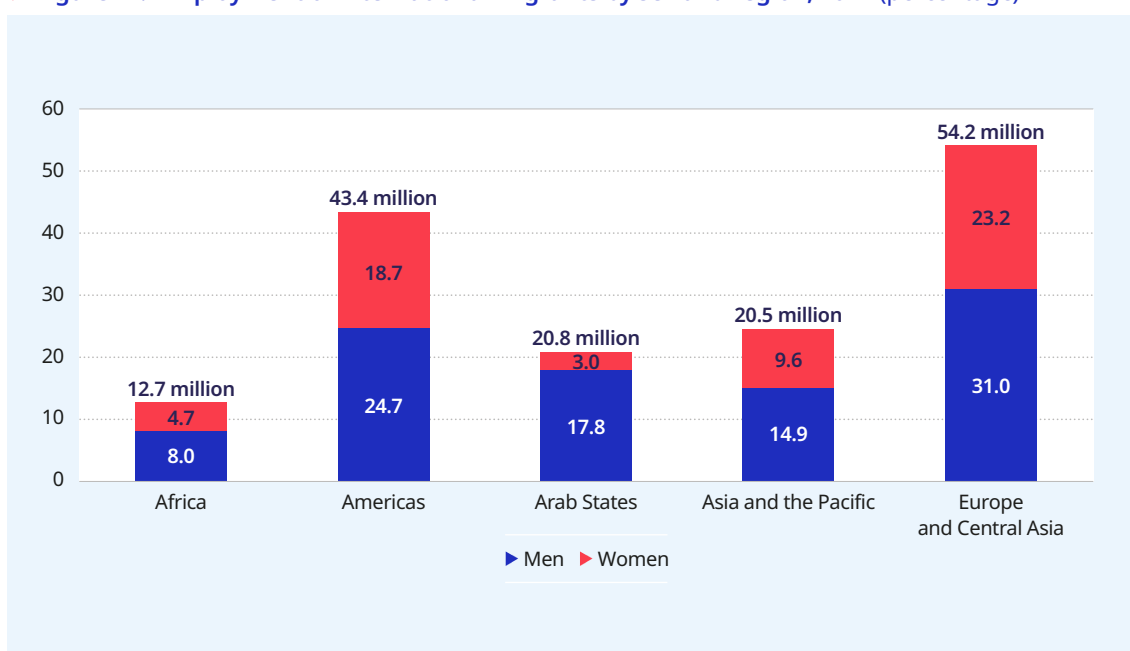
Most employed international migrants are located in Europe and Central Asia and in the Americas (see figure 41). Out of the 155.6 million employed

international migrants, 54.2 million (34.8 per cent) are in Europe and Central Asia and 43.4 million (27.9 per cent) in the Americas.

In 2022, the proportion of migrants in total employment was significantly higher in the Arab States compared to other regions (see figure 42). Migrant men accounted for 38.8 per cent of total male employment and migrant women accounted for 33.5 per cent of total female employment. Around one in ten people in employment is a migrant in Europe and Central Asia (13.5 for men and 12.1 per cent for women) and in the Americas (9.1 per cent for both sexes). The share of migrants in total employment was lower in Africa and Asia and the Pacific and did not exceed 2.8 per cent.

In 2022, the employment-to-population ratio of migrant men was higher than that of non-migrant men in all regions, with a particularly significant difference in the Arab States (see figure 43). This indicates that a larger proportion of migrant men are employed, compared to non-migrant men in this region. The same pattern was observed for women, except for Africa and Europe and Central Asia, where the proportion of women in employment is comparable in migrant and non-migrant populations.

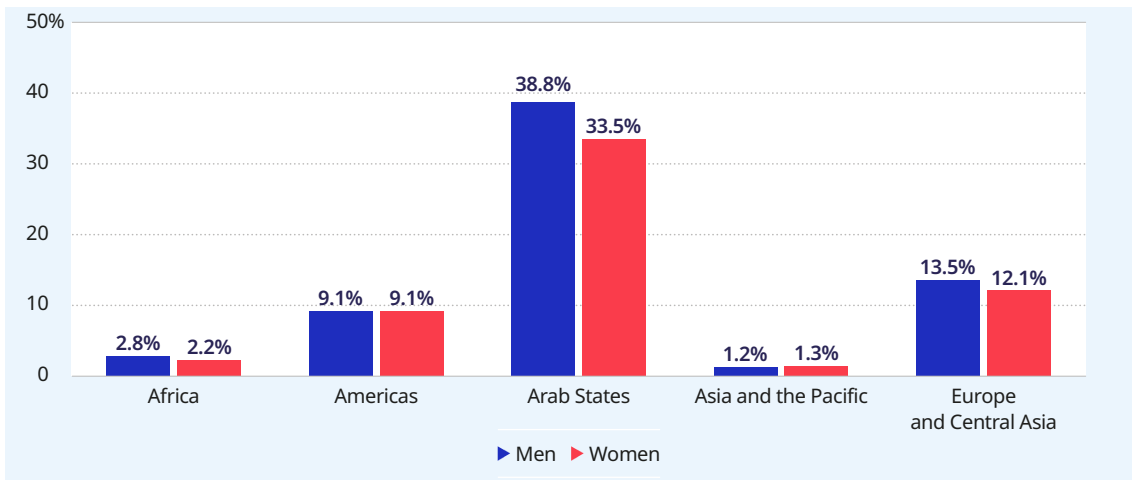
► Figure 41. Employment of international migrants by sex and region, 2022 (percentage)



**Note:** For a breakdown by broad subregion, see table D7, Annex D.

**Source:** ILO estimates.

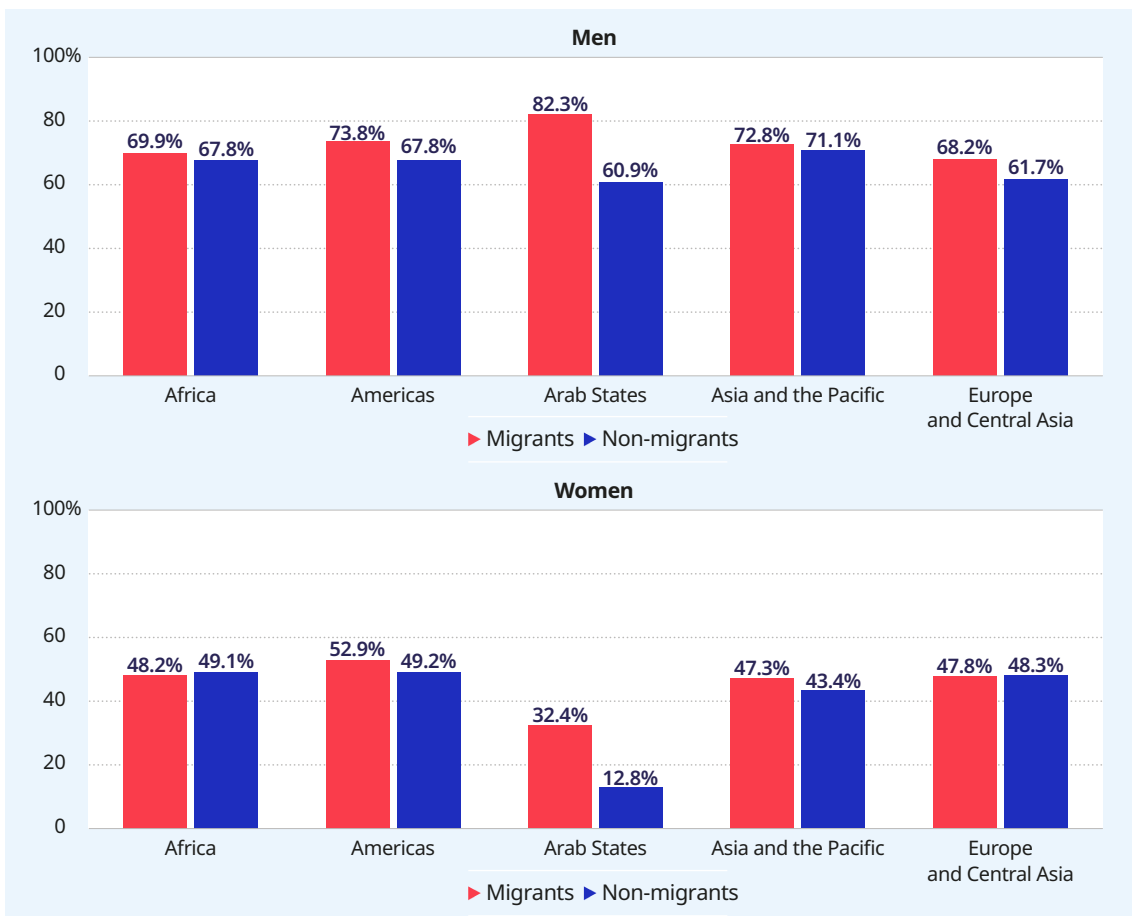
► **Figure 42. Share of international migrants in employed population by sex and region, 2022 (percentage)**



**Note:** For a breakdown by broad subregion, see figure D5, Annex D.

**Source:** ILO estimates.

► **Figure 43. Employment-to-population ratio of international migrants and non-migrants by sex and region, 2022 (percentage)**



**Note:** For a breakdown by broad subregion, see figure D6, Annex D.

**Source:** ILO estimates.

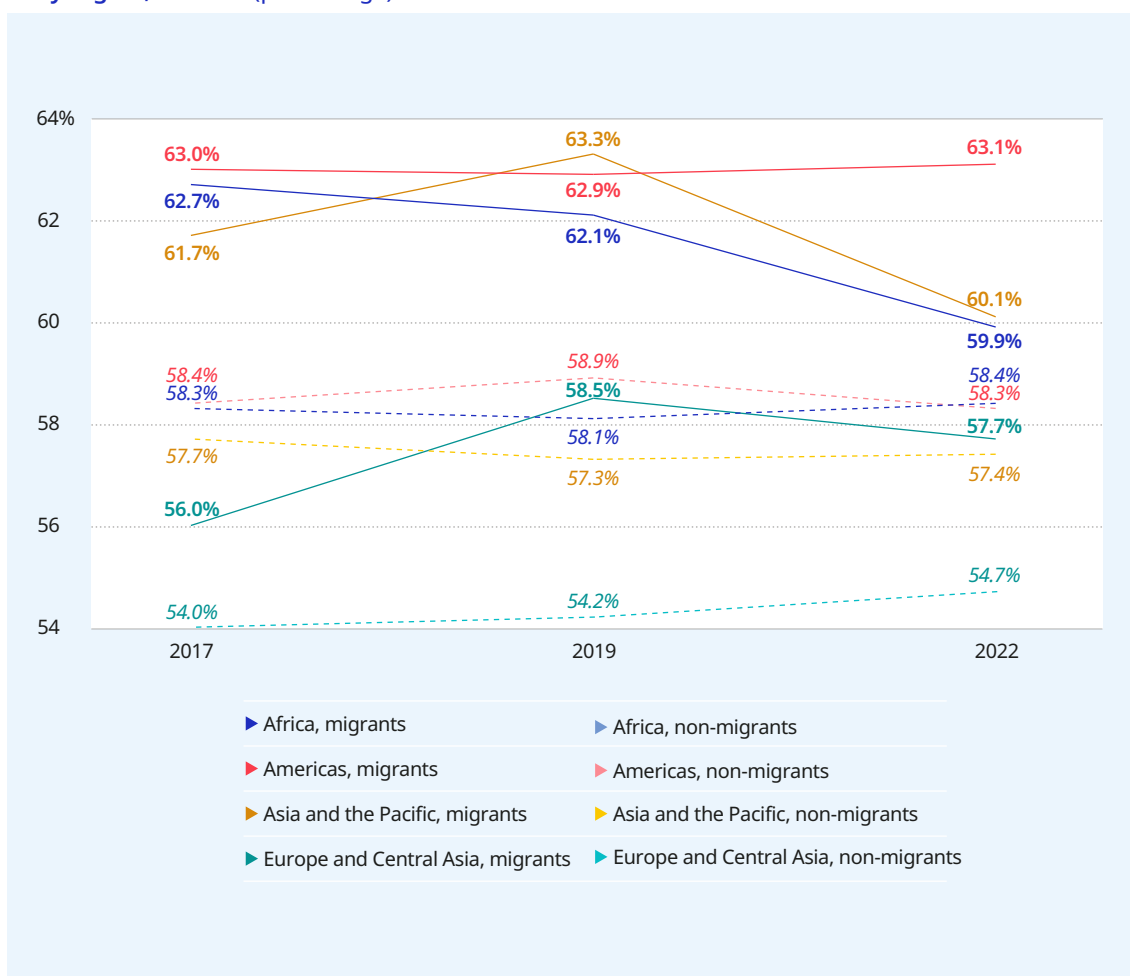


In 2022, the employment-to-population ratio for migrant men and women exceeded that of non-migrant men and women across all regions.

The proportion of employed international migrants in the population evolved differently across ILO regions between 2017 and 2022 (see figure 44). It slightly decreased from 62.7 per cent to 59.9 per cent in Africa, and this could be attributed to

challenges destination countries in this region face absorbing migrants into their labour markets (African Union Commission 2019). The employment-to-population ratio remained relatively stable in the Americas. It fluctuated in Asia and the Pacific and Europe and Central Asia with an initial increase in 2019, and a subsequent decrease in 2022. In the Arab States, the ratio increased from 64.2 per cent to 67.3 per cent between 2019 and 2022. This may be attributed, among other factors, to an increased demand for migrant workers in certain sectors of the region, particularly in the context of post-COVID-19 economic recovery (ADB/ILO/OECD 2023).

► **Figure 44. Employment-to-population ratio of international migrants and non-migrants by region, 2017–22 (percentage)**



**Note:** Available national data insufficient for 2013 estimations for all regions and 2017 estimations for the Arab States. For the Arab States in 2019 and 2022, estimates for migrants (non-migrants) were 64.2 (38.1) per cent and 67.3 (36.8) per cent, respectively.

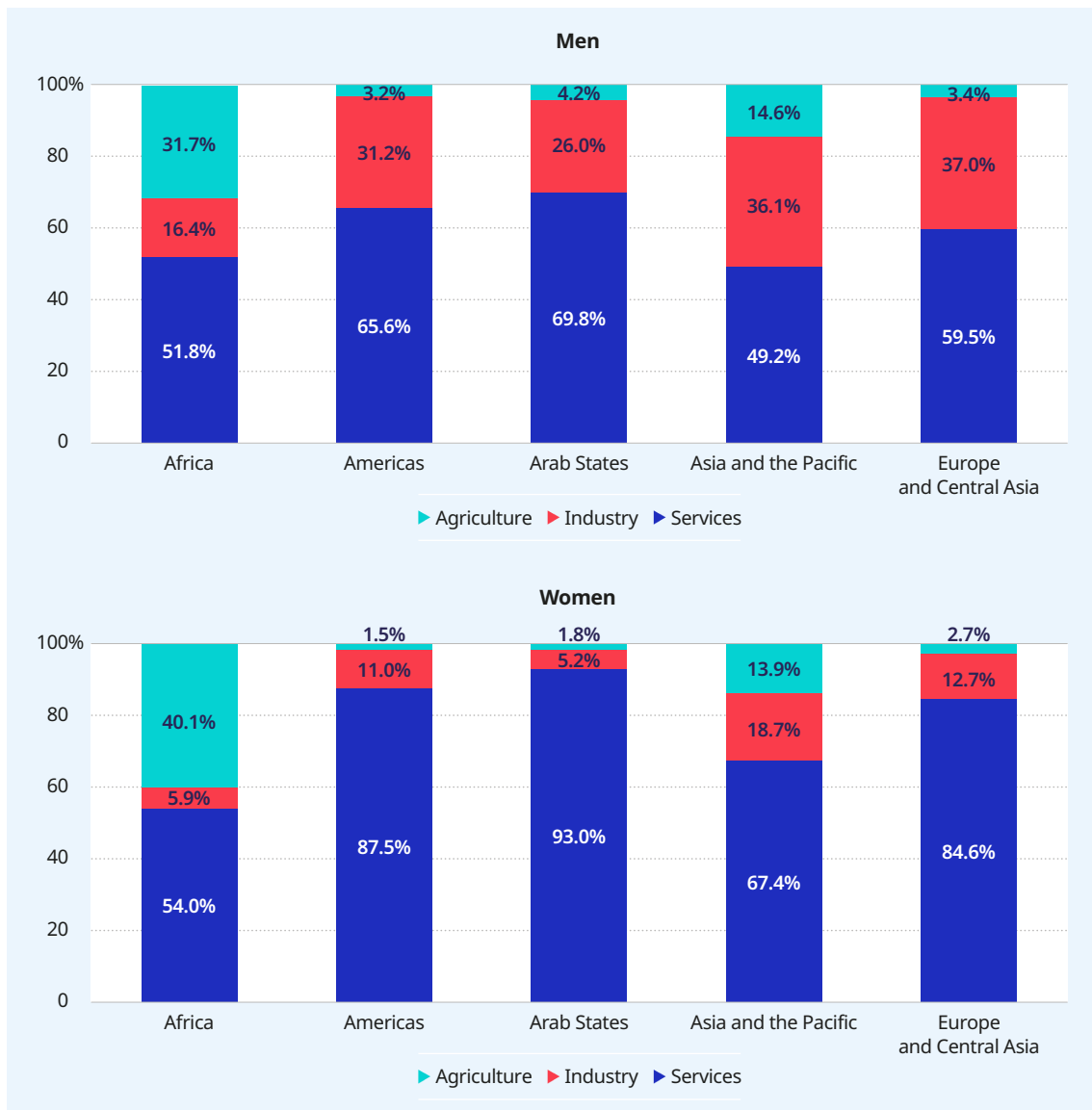
**Source:** ILO estimates.

### 4.2.2. Employed international migrants by broad category of economic activity

In 2022, international migrant men were employed mostly in the services sector in all regions (see figure 45). The proportion of migrant men employed in services ranged from 49.2 per cent in Asia and the Pacific to 69.8 per cent in the Arab States. In Africa, agriculture was responsible for a significant share of employment of migrant men, with 31.7 per cent of them working in the sector.

With regard to migrant women, services continued to be the largest sector of employment, but there were considerable regional variations. While in the Arab States, a significantly high 93.0 per cent of migrant women worked in services in 2022, the share was only 54.0 per cent in Africa. At 40.1 per cent, agriculture was responsible for a sizeable share of the economic activity for migrant women in Africa. Industrial employment of migrant women was lower than that of migrant men in all regions. The expansion of the services sector, driven by increased consumer demand and the growth in

► **Figure 45. Distribution of international migrants in the labour force by sex, broad category of economic activity and region, 2022 (percentage)**



Source: ILO estimates.

care work and hospitality, resulted in higher shares of women's employment in this economic activity, including women migrants (Sorgner 2011).

The employment patterns are similar when considering subregions (see table 4). In 2022, the services sector represented the largest employment

sector for migrant men in all subregions, except in Eastern Europe, where 49.8 per cent of international migrants in the labour force were employed in industry and 45.5 per cent in services, and in Southern Asia, where industrial employment was on par with services with 37.8 per cent and 37.7 per cent, respectively. This subregion is

► **Table 4. Distribution of international migrants in the labour force by sex, broad category of economic activity and broad subregion, 2022 (percentage)**

Region	Broad subregion	Agriculture	Industry	Services
		Men		
Africa	Northern Africa	4.4	21.4	74.2
	Sub-Saharan Africa	34.5	15.9	49.6
Americas	Latin America and the Caribbean	8.0	31.5	60.5
	Northern America	2.1	31.2	66.7
Arab States	Arab States	4.2	26.0	69.8
Asia and the Pacific	Eastern Asia	4.5	42.0	53.5
	South-Eastern Asia and the Pacific	13.0	33.0	54.0
	Southern Asia	24.5	37.8	37.7
Europe and Central Asia	Central and Western Asia	5.4	37.9	56.7
	Eastern Europe	4.7	49.8	45.5
	Northern, Southern and Western Europe	2.6	32.5	64.8
Women				
Africa	Northern Africa	4.2	4.9	90.9
	Sub-Saharan Africa	41.3	6.0	52.7
Americas	Latin America and the Caribbean	3.1	12.0	84.8
	Northern America	1.2	10.8	88.0
Arab States	Arab States	1.8	5.2	93.0
Asia and the Pacific	Eastern Asia	3.7	21.6	74.7
	South-Eastern Asia and the Pacific	8.0	18.8	73.2
	Southern Asia	52.1	13.6	34.3
Europe and Central Asia	Central and Western Asia	5.2	15.3	79.5
	Eastern Europe	6.6	17.9	75.4
	Northern, Southern and Western Europe	1.3	11.0	87.8

**Note:** For estimates for both sexes combined, see table D8, Annex D.

**Source:** ILO estimates.

characterized by a high share of manufacturing jobs that are part of global value chains, which can explain the dominance of industrial employment among international migrants (ILO 2023b). In other subregions, industry is the second largest employment sector for migrant men, except in sub-Saharan Africa, where agriculture remains an important sector of employment for migrant men (34.5 per cent).

In 2022, agriculture was also the most important economic activity for migrant women in Southern Asia and sub-Saharan Africa at 41.3 per cent and 52.1 per cent, respectively. In all other subregions, the services sector employed the largest share of migrant women, the highest of which was in the Arab States, at 93 per cent.

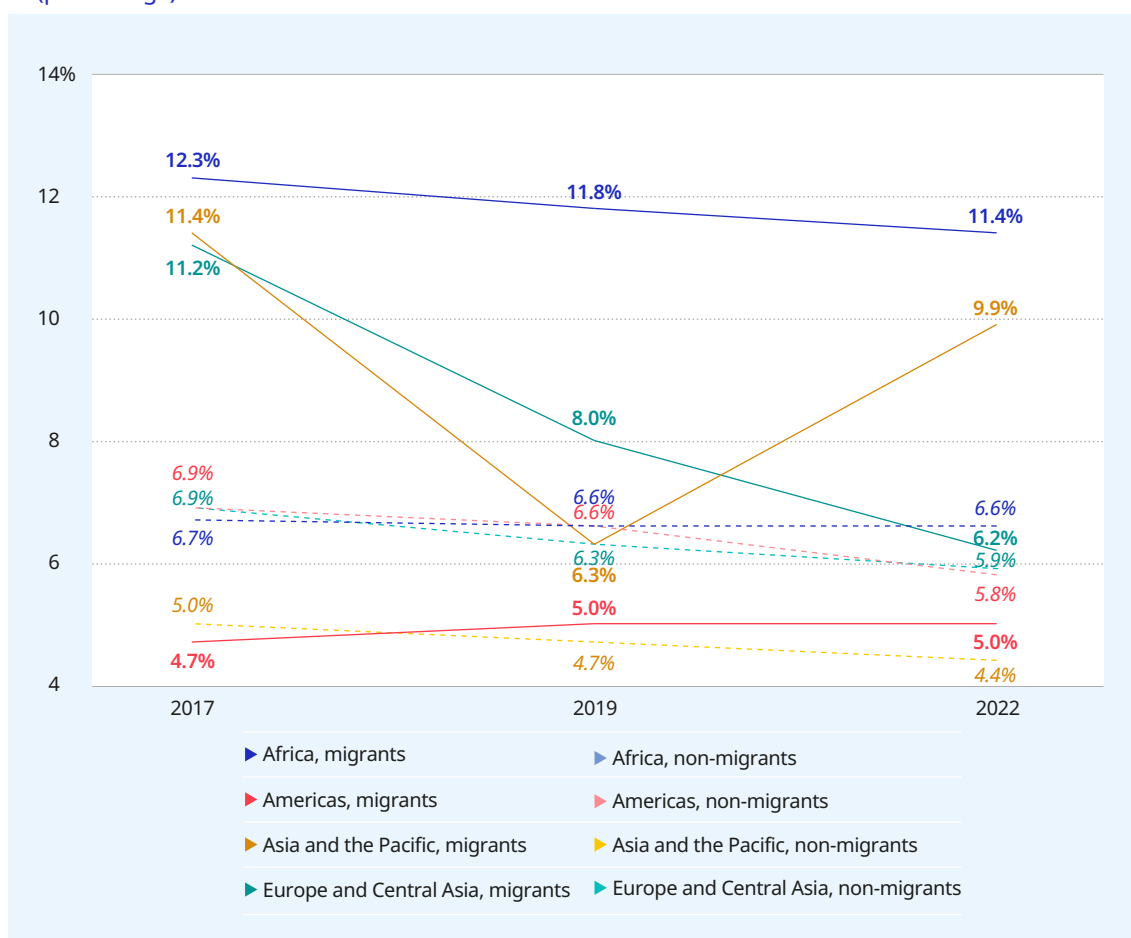
### 4.3. Unemployment of international migrants

This section presents the estimates on unemployment at the regional level only due to limited data availability in some subregions.

In 2022, the unemployment rate of migrants compared to non-migrants was higher in Africa (11.4 per cent), Asia and the Pacific (9.9 per cent) and Europe and Central Asia (6.2 per cent). In contrast, the unemployment rate is lower for migrants in the Americas (5.0 per cent) and Arab States (8.2 per cent) (see figure 46).

Africa, Europe and Central Asia experienced a decline in migrant unemployment rates between

► **Figure 46. Unemployment rate of international migrants and non-migrants by region, 2017–22** (percentage)



**Note:** Available national data insufficient for 2013 estimations for all regions and 2017 estimation for the Arab States. For the Arab States in 2019 and 2022, estimates for migrants (non-migrants) were 13.6 (6.6) per cent and 8.2 (11.1) per cent, respectively.

**Source:** ILO estimates.

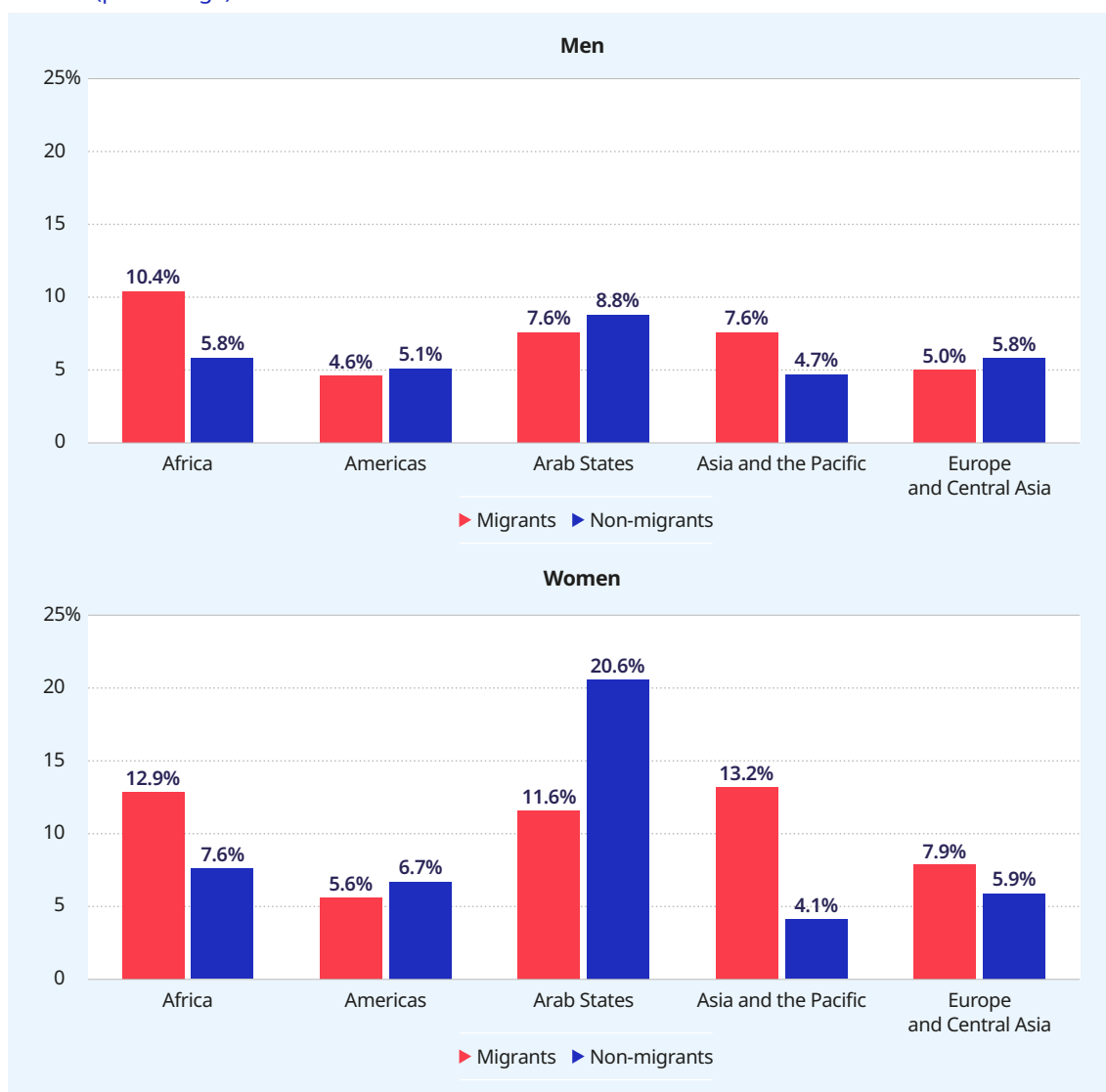
2017 and 2022 from 12.3 per cent to 11.4 per cent and from 11.2 per cent and 6.2 per cent, respectively. In the Arab States, the same pattern was observed between 2019 and 2022, when migrant unemployment rates fell from 13.6 per cent to 8.2 per cent.

In the Americas, the unemployment rate of migrants remained stable. In the region, employment growth was quite robust, keeping the unemployment rates low in general (ILO 2023c). In Asia and the Pacific, a notable fluctuation in migrant unemployment rates were observed, with a sharp decrease between 2017 and 2019 followed by a significant increase



The recent increase in the unemployment rate of international migrants in Asia and the Pacific can be attributed to the COVID-19 crisis and associated job losses in sectors such as tourism.

► **Figure 47. Unemployment rate of international migrants and non-migrants by sex and region, 2022 (percentage)**



Source: ILO estimates.

in 2022. The unemployment rate of international migrants in this region can be partially attributed to the COVID-19 crisis and associated job losses in sectors such as tourism that were hit hard. These sectors predominantly employ international migrants, and it has been estimated that job losses in tourism-related sectors were four times greater than in non-tourism sectors (ILO 2021c).

For both migrant men and women in Africa and Asia and the Pacific, the unemployment rate was

higher than for non-migrants (see figure 47). It is also the case for migrant women in Europe and Central Asia.

In the Americas, the Arab States and in Europe and Central Asia, migrant men have lower unemployment rates than non-migrant men. Women migrants have lower unemployment rates than non-migrant women in the Americas and in the Arab States.

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## ► Annexes



## ► Annex A. Geographical regions and income groups

► Table A1. ILO geographical groupings of countries and territories

Region	Broad subregion	Number of countries and territories
Africa	Northern Africa	7
	Sub-Saharan Africa	47
Americas	Latin America and the Caribbean	31
	Northern America	2
Arab States	Arab States	12
Asia and the Pacific	Eastern Asia	8
	South-Eastern Asia and the Pacific	22
	Southern Asia	9
Europe and Central Asia	Central and Western Asia	11
	Eastern Europe	10
	Northern, Southern and Western Europe	30
Total		189

► Table A2. Grouping of countries and territories by ILO broad subregions

Broad subregion	Countries and territories					
Northern Africa (7)	Algeria	Egypt	Libya	Morocco	Sudan	Tunisia
	Western Sahara					
Sub-Saharan Africa (47)	Angola	Benin	Botswana	Burkina Faso	Burundi	Cabo Verde
	Cameroon	Central African Republic	Chad	Comoros	Congo	Côte d'Ivoire
	Democratic Republic of the Congo	Djibouti	Equatorial Guinea	Eritrea	Eswatini	Ethiopia
	Gabon	Gambia	Ghana	Guinea	Guinea-Bissau	Kenya
	Lesotho	Liberia	Madagascar	Malawi	Mali	Mauritania
	Mauritius	Mozambique	Namibia	Niger	Nigeria	Rwanda
	Sao Tome and Principe	Senegal	Sierra Leone	Somalia	South Africa	South Sudan
	Togo	Uganda	United Republic of Tanzania	Zambia	Zimbabwe	

► Table A2 (cont.)

Broad subregion	Countries and territories					
Latin America and the Caribbean (31)	Argentina	Bahamas	Barbados	Belize	Bolivia (Plurinational State of)	Brazil
	Chile	Colombia	Costa Rica	Cuba	Dominican Republic	Ecuador
	El Salvador	Guatemala	Guyana	Haiti	Honduras	Jamaica
	Mexico	Nicaragua	Panama	Paraguay	Peru	Puerto Rico
	Saint Lucia	Saint Vincent and the Grenadines	Suriname	Trinidad and Tobago	United States Virgin Islands	Uruguay
	Venezuela (Bolivarian Republic of)					
Northern America (2)	Canada	United States of America				
Arab States (12)	Bahrain	Iraq	Jordan	Kuwait	Lebanon	Occupied Palestinian Territory
	Oman	Qatar	Saudi Arabia	Syrian Arab Republic	United Arab Emirates	Yemen
Eastern Asia (8)	China	Democratic People's Republic of Korea	Hong Kong, China	Japan	Macao, China	Mongolia
	Republic of Korea	Taiwan, China				
South-Eastern Asia and the Pacific (22)	Australia	Brunei Darussalam	Cambodia	Fiji	French Polynesia	Guam
	Indonesia	Lao People's Democratic Republic	Malaysia	Myanmar	New Caledonia	New Zealand
	Papua New Guinea	Philippines	Samoa	Singapore	Solomon Islands	Thailand
	Timor-Leste	Tonga	Vanuatu	Viet Nam		
Southern Asia (9)	Afghanistan	Bangladesh	Bhutan	India	Iran (Islamic Republic of)	Maldives
	Nepal	Pakistan	Sri Lanka			
Central and Western Asia (11)	Armenia	Azerbaijan	Cyprus	Georgia	Israel	Kazakhstan
	Kyrgyzstan	Tajikistan	Türkiye	Turkmenistan	Uzbekistan	
Eastern Europe (10)	Belarus	Bulgaria	Czechia	Hungary	Poland	Republic of Moldova
	Romania	Russian Federation	Slovakia	Ukraine		
Northern, Southern and Western Europe (30)	Albania	Austria	Belgium	Bosnia and Herzegovina	Channel Islands	Croatia
	Denmark	Estonia	Finland	France	Germany	Greece
	Iceland	Ireland	Italy	Latvia	Lithuania	Luxembourg
	Malta	Montenegro	Netherlands	North Macedonia	Norway	Portugal
	Serbia	Slovenia	Spain	Sweden	Switzerland	United Kingdom

► Table A3. Grouping of countries and territories by income level

Income level	Countries and territories					
High-income (61)	Australia	Austria	Bahamas	Bahrain	Barbados	Belgium
	Brunei Darussalam	Canada	Channel Islands	Chile	Croatia	Cyprus
	Czechia	Denmark	Estonia	Finland	France	French Polynesia
	Germany	Greece	Guam	Guyana	Hong Kong, China	Hungary
	Iceland	Ireland	Israel	Italy	Japan	Kuwait
	Latvia	Lithuania	Luxembourg	Macao, China	Malta	Netherlands
	New Caledonia	New Zealand	Norway	Oman	Panama	Poland
	Portugal	Puerto Rico	Republic of Korea	Qatar	Romania	Saudi Arabia
	Singapore	Slovakia	Slovenia	Spain	Sweden	Switzerland
	Taiwan, China	Trinidad and Tobago	United Arab Emirates	United Kingdom	United States of America	United States Virgin Islands
	Uruguay					
Upper-middle-income (49)	Albania	Argentina	Armenia	Azerbaijan	Belarus	Belize
	Bosnia and Herzegovina	Botswana	Brazil	Bulgaria	China	Colombia
	Costa Rica	Cuba	Dominican Republic	Ecuador	El Salvador	Equatorial Guinea
	Fiji	Gabon	Georgia	Guatemala	Indonesia	Iraq
	Jamaica	Kazakhstan	Libya	Malaysia	Maldives	Mauritius
	Mexico	Montenegro	Namibia	North Macedonia	Occupied Palestinian Territory	Paraguay
	Peru	Republic of Moldova	Russian Federation	Saint Lucia	Saint Vincent and the Grenadines	Serbia
	South Africa	Suriname	Thailand	Tonga	Türkiye	Turkmenistan
	Venezuela (Bolivarian Republic of)					
Lower-middle-income (53)	Algeria	Angola	Bangladesh	Benin	Bhutan	Bolivia (Plurinational State of)
	Cabo Verde	Cambodia	Cameroon	Comoros	Congo	Côte d'Ivoire
	Djibouti	Egypt	Eswatini	Ghana	Guinea	Haiti
	Honduras	India	Iran (Islamic Republic of)	Jordan	Kenya	Kyrgyzstan

► Table A3 (cont.)

Income level	Countries and territories					
	Lao People's Democratic Republic	Lebanon	Lesotho	Mauritania	Mongolia	Morocco
	Myanmar	Nepal	Nicaragua	Nigeria	Pakistan	Papua New Guinea
	Philippines	Samoa	Sao Tome and Principe	Senegal	Solomon Islands	Sri Lanka
	Tajikistan	Timor-Leste	Tunisia	United Republic of Tanzania	Ukraine	Uzbekistan
	Vanuatu	Viet Nam	Western Sahara	Zambia	Zimbabwe	
Low-income (26)	Afghanistan	Burkina Faso	Burundi	Central African Republic	Chad	Democratic Republic of the Congo
	Democratic People's Republic of Korea	Eritrea	Ethiopia	Gambia	Guinea-Bissau	Liberia
	Madagascar	Malawi	Mali	Mozambique	Niger	Rwanda
	Sierra Leone	Somalia	South Sudan	Sudan	Syrian Arab Republic	Togo
	Uganda	Yemen				

**Note:** Based on the World Bank classification for 2024.

## ► Annex B. Estimation methodology

The estimation methodology used a series of models that establish statistical relationships between observed labour migration indicators reported by countries to the ILO's International Labour Migration Statistics (ILMS) database and selected explanatory variables, detailed in section B2. These relationships were used to impute missing observations to obtain estimates for all 189 countries and territories covered by the estimations.

Once the set of estimates were obtained for each country using the new methodological approach, the resulting values were aggregated to obtain a global figure, and into 5 regions and 11 broad subregions according to the ILO geographical classification, and 4 income group as defined by the World Bank's country classification system (see Annex A). The following sections provide more details on the estimation approach for each specific labour migration indicator estimated.





### B1. Input data for estimation

Figure B1 summarizes the main input data used for the estimation of the labour market indicators included in this report:

- Country reported data on the international labour migration indicators to estimate: Data collected at the country level, mainly through household surveys or population censuses, and reported to the ILO. They present some gaps as not all the 189 countries and territories for which the global estimation is performed report those indicators (see Annex C).
- Benchmark data: Harmonized estimates, produced by the United Nations or the ILO, and available for all the 189 countries and territories. Their use aims at ensuring the consistency of the estimates on international migrants in the labour force with the reference estimates of the total working-age population, total international migrant stock and labour market indicators for the total population.

Additional data were used to predict the probability of countries reporting the target labour migration indicators, in order to account for potential non-reporting bias in the series of models, and to estimate specific indicators, such as the proportion of migrants in care employment.

#### ► Figure B1. Benchmark and country reported data serving as input to the estimation

Benchmark data	Country reported data
 <b>Population</b> <i>UNDESA, World Population Prospects, 2022 Revision</i>	 <b>Labour force participation rate by migrant status</b> <b>Employment-to-population ratio by migrant status</b> <b>Employment by economic activity and migrant status</b> <b>Care employment by migrant status</b> <i>ILMS database, latest period</i>
 <b>International Migrant Stock</b> <i>UNDESA, 2020 Revision</i>	
 <b>Labour force participation rate</b> <b>Employment-to-population ratio</b> <b>Employment by economic activity</b> <i>ILO modelled estimates, November 2023</i>	

All input datasets used were the latest publicly available at the time the ILO estimates were finalized in preparation for this report, in June 2024. These input datasets are presented in greater detail in the following sections.

## B1.1. Benchmark data

### Benchmark population data

The working-age population data are taken from the World Population Prospects (2022 Revision)<sup>1</sup>, prepared by the United Nations Department of Economic and Social Affairs (UNDESA). The projection for the reference year 2022 was aggregated into four age groups (15–24, 25–54, 55–64 and 65+) by sex to obtain the benchmark values for working-age population (P).

### Benchmark international migration data

The benchmark international migrant data were derived from the International Migrant Stock 2020 (UNDESA, 2020)<sup>2</sup>. The proportion of working-age migrants in the population (m) was computed by sex and age group (15–24, 25–54, 55–64 and 65+) for the 189 countries and territories covered by the estimation<sup>3</sup>, using the working-age international migrant population (M) and the total population for 2020 from the same dataset. In the absence of more recent dataset on international migrant stock, the assumption was that the proportion of the working-age migrant population in 2020 remained constant in 2022. The decrease in international migration flows observed in some regions during the COVID-19 period, especially in high-income countries, which are the main destinations of migrants (González-Leonardo et al. 2023), could support this assumption of stagnation of international migrant stocks. The proportion of working-age migrants was applied to the working-age population of 2022, from the World Population Prospects dataset, to obtain the number of working-age international migrants for the reference year 2022.

### Benchmark labour market data

The benchmark labour market data were taken from the November 2023 revision of the ILO modelled estimates of core labour market indicators (reference year 2022), as disseminated on the ILO Modelled Estimates (ILOEST) database on ILOSTAT, the ILO data portal on labour statistics.<sup>4</sup> Three datasets were extracted from the ILOEST database, each covering the 189 countries and territories included in the estimation:

- **Labour force participation rate:** This indicator reflects the proportion of persons of working age who are in the labour force; that is, who are in employment or in unemployment.
- **Employment:** This indicator measures the proportion of the working-age population that is currently employed.<sup>5</sup>
- **Employment by economic activity:** This indicator reflects the number of employed persons by broad categories of economic activity; that is, in agriculture, industry or services.

<sup>1</sup> Available at <https://population.un.org/wpp/Download/Archive/Standard/>.

<sup>2</sup> These estimates take account of refugees, asylum seekers and other related groups. However, they do not provide separate estimates that could be used to support disaggregation. Taiwan, China is not included in the dataset. The proportion of international migrant population in Taiwan, China, according to Integral Human Development was used instead (see <https://migrants-refugees.va/country-profile/taiwan/>).

<sup>3</sup> The international migrants living in the 189 countries and territories represent 99.6 per cent of the world's migrant population.

<sup>4</sup> Available at <https://ilostat.ilo.org/data/>.

<sup>5</sup> Most country-reported employment data and the employment estimates for total population are based on the 13th International Conference of Labour Statisticians (ICLS) definition of employment, which includes production of goods mainly intended for own final use in employment. A few countries reported employment data based on the 19th ICLS definition of employment, which excludes this groups. See <https://ilostat.ilo.org/data/> for details.

## B1.2. Country reported data on international labour migration

Information on the labour market characteristics of international migrants were obtained from data reported by countries from different sources, compiled and disseminated by the ILO through the ILMS database on ILOSTAT.<sup>6</sup> In recent years, the ILMS database grew significantly from 19 indicators and 27 reporting countries and territories in October 2018 to more than 70 indicators and 170 countries and territories in June 2024 and is now the only source of country reported data on labour migration used for the ILO estimates.

Three sets of indicators, listed below, were extracted from the ILMS database to serve as input data. The ILMS database compiles indicators separately by place of birth and citizenship, which are the two main criteria to define international migrants. Priority was given to indicators based on the criterion of place of birth when available (see Annex C). The three set of indicators are:

- **Labour force participation rate (LFPR):** LFPRs by sex, international migrant status and age group (15–24, 25–54, 55–64 and 65+), available for 142 countries and territories, with 126 based on place of birth and 16 based on citizenship.
- **Employment-to-population ratio (EPR):** EPRs by sex and international migrant status for the population aged 15 years and over, available for the same 142 countries and territories with data on LFPRs.
- **Employment by economic activity (EA):** The number of persons employed by economic activity by sex and international migrant status for the population aged 15 years and over, available for 144 countries and territories.<sup>7</sup> The proportion of persons employed by economic activity (pEA) was calculated from the ratio of the number of persons employed in each economic activity and the total number of persons employed.
- **Employment in the care economy (CE):** The number of persons employed in the care economy by sex and international migrant status for the population aged 15 years and over, available for 109 countries. The proportion of persons employed in the care economy (pCE) was calculated from the ratio of the number of persons employed in the care economy and the total number of persons employed.

## B1.3. Additional data

The estimation methodology required the use of two additional datasets:

- **Gross domestic product per capita (GDPpc):** This variable was used as an explanatory variable to model the probability of a country to report labour market indicators by international migrant status. GDP itself is not a direct cause of a lack of reporting data, but there are several ways in which GDP-related factors might influence or correlate with data reporting issues, such as economic development and infrastructure, administrative capacity, data collection priorities, and data quality and reliability. The most recent available GDPpc in constant 2015 US dollars<sup>8</sup> for the 189 countries and territories reported by the ILO was obtained from the data repositories of the World Bank<sup>9</sup>, the International Monetary Fund<sup>10</sup> and the United Nations<sup>11</sup>. Of the 189 countries and territories, GDPpc in 2022 was used for 176, in 2021 for 9 and in 2015 or earlier for 4.
- **Healthy life expectancy (HALE) at age 60:** HALE at age 60 is the average number of years in full health a person at age 60 can expect to live based on current rates of ill health and mortality. HALE at age 60 is

<sup>6</sup> Available at <https://ilostat.ilo.org/data/>.

<sup>7</sup> Compared to the 142 countries and territories with LFPRs, data on economic activity were not available for Liberia and Saudi Arabia, but were available for Azerbaijan, Japan, the Occupied Palestinian Territory and the Republic of Korea.

<sup>8</sup> GDP per capita in current US dollars was used for: the Channel Islands; the Democratic People's Republic of Korea; Taiwan, China; the Bolivarian Republic of Venezuela; and Western Sahara.

<sup>9</sup> See <https://data.worldbank.org/indicator/NY.GDP.PCAP.KD>.

<sup>10</sup> See <https://www.imf.org/external/datamapper/NGDPDPC@WEO/OEMDC/ADVEC/WEOWORLD>.

<sup>11</sup> See <https://data.un.org/>.

used as an explanatory variable to model pCE, as it is expected that people living longer without good health will demand more services from the care economy. HALE at age 60 for the 109 countries and territories reporting pCE was obtained from the data repository of the World Health Organization.<sup>12</sup> The latest HALE at age 60 available corresponds to 2021.

## B2. Main components and steps

### B2.1. Estimation of international migrants in the labour force

A linear mixed model was used to estimate the LFPR of the population by sex, international migrant status and age group. Model estimates are used to impute LFPR values in countries with missing data to derive the number of international migrants in the labour force. A linear relationship is assumed between LFPR of migrants and LFPR of the total population. The model specification is given in equation 1 (*i* refers to country and *t* refers to year):

$$L_{it} = \ln \left( \frac{\text{LFPR}_{it}}{(1 - \text{LFPR}_{it})} \right) = x_{it}\beta + z_{it}\varphi + p_i + y_t + \alpha_i + \varepsilon_{it} \quad (1)$$

$L_{it}$  is the logit transformation of reported LFPR by sex, international migrant status and age group.<sup>13</sup> The vector  $x_{it}$  is a set of explanatory covariates that included the LFPR for the total working-age population, the proportion of international migrants in the population and the square of this proportion. The vector  $z_{it}$  is a set of dummy variables including sex, international migrant status, age group, broad subregion and income group. In addition, a dummy variable for year ( $y_t$ ), a country-specific random effect ( $\alpha_i$ )<sup>14</sup> and an error term ( $\varepsilon_{it}$ ) were included.

The model also includes the probability of having reported LFPR by international migrant status ( $p_i$ ) to account for the non-response bias.<sup>15</sup> This is important as only 142 out of the 189 countries and territories reported LFPR by international migrant status to the ILO, and ignoring or mishandling missing data can lead to biased results, reduced statistical power and incorrect conclusions in data analysis or modelling.

The fitted values of LFPR ( $\widehat{\text{LFPR}}_{it}$ ) were obtained from the estimated  $L_{it}(\widehat{L}_{it})$ , as follows:

$$\widehat{\text{LFPR}}_{it} = \frac{\exp(\widehat{L}_{it})}{(1 + \exp(\widehat{L}_{it}))} \quad (2)$$

The international migrant labour force (MW) was computed based on the benchmark estimate of population (P) and benchmark proportion of international migrants (m) for the reference year, to harmonize the estimates with the international estimates of population and of international migrants (see section B1.1 for details on benchmark data). For a bottom-up approach aiming at producing aggregate results by geographical location and income group, the computation of MW was performed separately for eight categories or subgroups of the population, derived from the combination of sex and the four age categories (15–24, 25–54, 55–64 and 65 years and above). Estimates were obtained using the following equation

<sup>12</sup> See <https://www.who.int/data/gho/data/themes/mortality-and-global-health-estimates/ghe-life-expectancy-and-healthy-life-expectancy>.

<sup>13</sup> LFPRs were included in the model as a logit transformation to normalize skewed data in order to make them more suitable for statistical analyses and to reduce the impact of outliers for increased reliability.

<sup>14</sup> While both random effects and fixed effects models provide identical coefficient estimates, the random effects specification offers several advantages that make it more suitable for the current analysis. These benefits include the ability to account for heterogeneity among countries, incorporate time-invariant country-specific covariates and potentially apply the model to countries not present in the sample. Given our focus on imputation, the random effects approach is particularly appropriate. To validate this choice, a Hausman-type test was used, showing that the random effects model should be preferred.

<sup>15</sup> Unreported LFPRs are missing at random, meaning that reporting countries are known to be different from non-reporting countries and the factors that determine whether a country reports data are identifiable. To account for missing data, a logistic regression was run to estimate, conditional on identifiable country characteristics such as GDP per capita (constant 2015 US dollars), national working-age population, share of migrant working-age population at the national level, income group and broad subregion. The dependent variable took the value of 1 if the LFPR by sex, international migrant status and age group was reported, and 0 otherwise. The estimated was then included in the main model as an additional variable (Heckman 1979).

for each category of the population in a given country, where MLFPR is the migrant labour force participation rate:

$$MW = MLFPR \times P \times m \quad (3)$$

The MW values are computed differently according to the availability of observed data on LFPRs by international migrant status. For countries with observed MLFPR in the relevant sex–age category, MLFPR corresponds to the reported national data for the reference year or the most recent year if 2022 data were not available (see equation 4a). For countries with missing MLFPR in the relevant sex–age categories, MW was computed using MLFPR derived from the model estimates (see equation 4b). Details on the data availability of each country can be found in annex C, table C1.

$$MW = MLFPR_{obs} \times P \times m \quad (4a)$$

$$MW = \widehat{MLFPR} \times P \times m \quad (4b)$$

In equations 4a and 4b,  $MLFPR_{obs}$  corresponds to the reported values of LFPR for migrants from national data, and  $\widehat{MLFPR}$  to the fitted values of LFPR for migrants from the model.

The non-migrant labour force was calculated as the difference between the ILO modelled estimates of the labour force and the MW estimates from equations 4a or 4b. This approach ensures internal consistency of the results while preserving the levels of MW derived from the model.

## B2.2. Estimating employed international migrants

A similar approach was used to estimate the number of international migrants in employment. The outcome variable of the estimation ( $R_i$ ) is the logit-transformed EPR by sex and international migrant status for the population aged 15 years and over. A linear model was used,<sup>16</sup> and the explanatory variables are the benchmark EPR, the proportion of migrants and its square (vector  $x_i$ ), and the probability of having reported EPR, estimated similarly to  $p_i$ . Dummy variables for sex, international migrant status, broad subregion, and income group were also included (vector  $z_i$ ).

$$R_i = \ln \left( \frac{EPR_i}{(1 - EPR_i)} \right) = x_i \beta + z_i \varphi + p_i + \varepsilon_i \quad (5)$$

Migrant employment (ME) by sex was calculated using different equations depending on the availability of observed EPR, similar to the estimation of LFPR. Equation 6a was used where reported data were available and equation 6b, based on fitted values of EPR from the model, was used where EPR was not reported.

$$ME = MEPR_{obs} \times P \times m \quad (6a)$$

$$ME = \widehat{MEPR} \times P \times m \quad (6b)$$

In equations 6a and 6b,  $MEPR_{obs}$  corresponds to the reported values of migrant employment-to-population ratio from national data and  $\widehat{MEPR}$  to the fitted values of migrant employment-to-population ratio from the model. Non-migrant employment was calculated as the difference between the employment of the total population from ILO modelled estimates and ME.

<sup>16</sup> In this case, only the most recent data on employment was used, since employment fluctuates more over time compared to LFPR. Therefore, a linear model was used, since the dataset did not present the characteristics of an unbalanced panel.

### B2.3. Estimating the distribution by economic activity of employed international migrants

This step builds on the estimated employment by international migrant status and sex for the population aged 15 years and over. The output dataset described in section B2.2 serves to derive the distribution of the employed population by three broad categories of economic activity: agriculture, industry and services. The distribution by economic activity (pEA) can be modelled as a set of dependent fractional variables, each bounded between 0 and 1 and whose sum is equal to 1. Therefore, a fractional multinomial logit model<sup>17</sup> was used to estimate the proportion of persons employed in each sector by sex and international migrant status.

Explanatory variables, included in vector  $x_i$ , were the proportion of persons employed in agriculture, the proportion of persons employed in industry and the benchmark EPR, and the probability of having reported pEA, estimated similarly to  $p_i$ . As before, dummy variables for sex, international migrant status, broad subregion and income group were included (vector  $z_i$ ), and  $i$  refers to country by sex and international migrant status and  $j$  refers to broad category of economic activity by sex and international migrant status:

$$pEA_{ij} = x_i \beta + z_i \varphi + p_i + \varepsilon_i \quad (7)$$

The number of persons employed in each broad category of EA by international migrant status and sex was calculated using different equations depending on the availability of observed pEA, similar to the estimation of LFPRs and EPRs. Equation 8a was used where reported data of pEA for all three categories of economic activity were available for a given sex and international migrant status (for example, available for all migrant women). Equation 8b was used in all three categories of economic activity for a given sex and international migrant status when at least one category of pEA was missing (for example, agriculture data missing for migrant women).

$$EA = pEA_{obs} \times E \quad (8a)$$

$$EA = p\hat{EA} \times E \quad (8b)$$

In equations 8a and 8b,  $pEA_{obs}$  corresponds to the reported values of pEA from national data,  $p\hat{EA}$  to the fitted values of pEA from the model, and  $E$  to the estimates of employment obtained as described in section B2.2.

### B2.4. Deriving unemployment estimates

The number of persons in the labour force equals the number of persons employed plus the number of persons unemployed (see definitions in box 2, in the Introduction). As the labour force and employment by international migrant status were already estimated using the approaches described above, the number of unemployed persons by international migrant status can be derived as the difference between the labour force and employment. Unemployment rates can then be calculated as the ratio of the number of unemployed persons to the labour force, for each sex and migrant status category.

### B2.5. Estimating the proportion of employed international migrants in care employment

This estimation focuses only on a subset of 109 countries and territories given the data limitations on care employment. There are no harmonized benchmark estimates for total population in care employment and reported national data for total population by international migrant status is limited (reported data for 86 countries and territories only, see Annex D).

<sup>17</sup> A fractional multinomial logit model is a statistical model used in the analysis of categorical outcomes where the response variable represents fractions or proportions that sum to one within each observation (Papke and Wooldridge 1996).

Similar to EPR, a linear model was used to estimate the number of international migrants in care employment (CE). The outcome variable  $C_i$  is the logit-transformed proportion of persons in care employment (pCE) by sex and international migrant status for the population aged 15 years and over. The explanatory variables, included in vector  $x_i$ , are the benchmark EPR for total working-age population, the proportion of migrants and the proportion of dependent population (for example, population aged 0–14 and 65+). HALE at age 60 by sex and the probability of having reported CE, estimated similarly to  $p_i$ , were included. Dummy variables for sex, international migrant status, broad subregion, income group (vector  $z_i$ ), and year ( $y_i$ ) were also included, where  $i$  refers to country:

$$C_i = \ln \left( \frac{pCE_i}{(1 - pCE_i)} \right) = x_i \beta + z_i \varphi + HALE + p_i + y_i + \varepsilon_i \quad (8a)$$

The number of migrants employed in the care economy (MCE) by sex was calculated using different equations depending on the availability of observed pCE, similar to the estimation of LFPRs, EPRs and pEAs. Equation 10a was used where reported data of pCE were available and equation 10b was used when pCE was missing.

$$MCE = pCE_{obs} \times E \quad (10a)$$

$$MCE = \widehat{pCE} \times E \quad (10b)$$

In equations 10a and 10b,  $pCE_{obs}$  corresponds to the reported values of migrant pCE from national data,  $\widehat{pCE}$  to the fitted values of migrant pCE from the model, and  $E$  to the estimates of employment from section B2.2. MCE is then aggregated at the global level and the proportion of migrants employed in the care economy (pMCE) by sex is derived using equation 10c:

$$pMCE = \frac{MCE}{E} \quad (10c)$$

### B3. Quality of estimates

The approach used in the current edition allows the production of high-quality estimates of international migrants in the labour force given improvements on several aspects. First, the new methodology employs a robust regression-based imputation approach using specific parameters based on the relationships between migrants and population characteristics at the regional level. Second, the use of country-level LFPR as the variable for imputation makes the estimation less sensitive to data availability at the regional level. Third, the imputation at the country level with a bottom-up approach allows estimates to be produced with more detailed disaggregation. The quality of the ILO global estimates can be assessed in terms of coverage of the underlying country reported data, the consistency of the estimates and the accuracy of the results.

#### B3.1. Coverage of country reported data

Labour market indicators by international migrant status were available for at least 142 countries and territories, representing 75 per cent of the 189 countries and territories covered by the estimation presented in this report. However, the availability of the national data was somewhat unevenly distributed over the ILO geographical regions. As shown in table B1, Northern America, Northern, Southern and Western Europe, and Eastern Europe have a complete, or almost complete coverage of country reported data, while data coverage remains low in the Arab States, Central and Western Asia, and Eastern Asia.

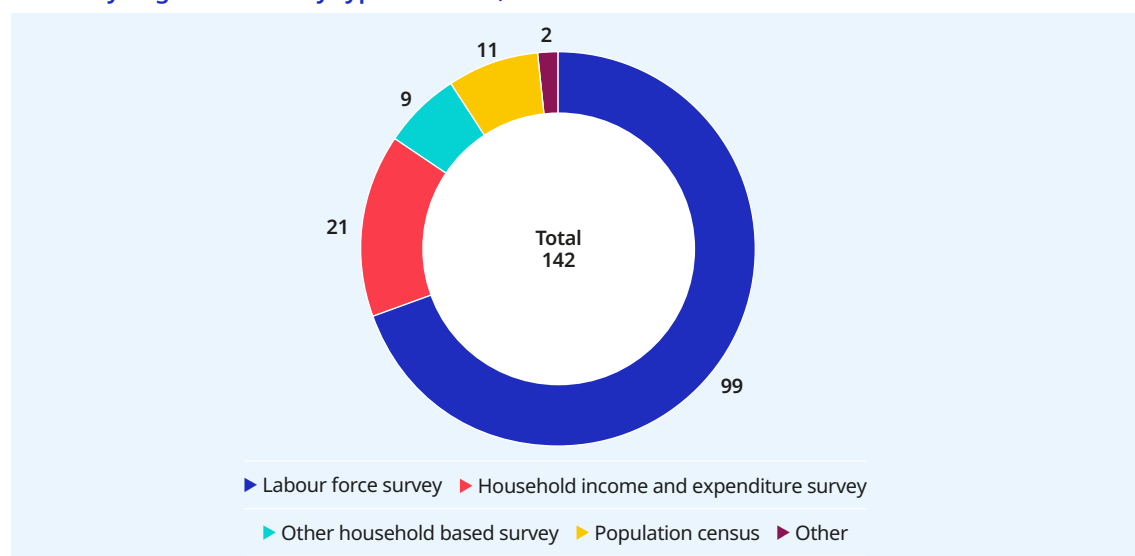
► **Table B1. Coverage of country reported data by international migrant status by broad subregion**

Region	Broad subregion	No. of countries reporting data			Share of countries reporting data (%)		
		LFPR	EPR	EA	LFPR	EPR	EA
Africa	Northern Africa (7)	3	3	3	43	43	43
	Sub-Saharan Africa (47)	39	39	38	83	83	81
Americas	Latin America and the Caribbean (31)	23	23	23	74	74	74
	Northern America (2)	2	2	2	100	100	100
Arab States	Arab States (12)	5	5	5	42	42	42
Asia and the Pacific	Eastern Asia (8)	1	1	3	13	13	38
	South-Eastern Asia and the Pacific (22)	17	17	17	77	77	77
	Southern Asia (9)	7	7	7	78	78	78
Europe and Central Asia	Central and Western Asia (11)	6	6	7	55	55	64
	Eastern Europe (10)	10	10	10	100	100	100
	Northern, Southern and Western Europe (30)	29	29	29	97	97	97
Total (189)		142	142	144	75	75	76

**Note:** EA – employment by economic activity; EPR – employment-to-population ratio; LFPR – labour force participation rate.

**Source:** ILO estimates.

The labour market indicators by international migrant status from the ILMS database come from different sources. Figure B2 shows the distribution of the 142 countries and territories with available data on LFPs by international migrant status. As observed, most of the data by migrant status come from labour force surveys (70 per cent) and household income and expenditure surveys (15 per cent) (see Annex C for details by country). The reference year of country reported data coincided with the 2022 reference year of this report for around half of the countries (67). Only around one out of five countries (30) had less recent data, dating from 2018 or earlier.

► **Figure B2. Number of countries and territories that reported data on labour force participation rate by migrant status by type of source, 2022**

**Source:** ILO estimates.

An increased country coverage improves the quality of estimates by incorporating a wider range of data, enhancing representativeness and reducing biases. This leads to more accurate and comprehensive statistical models and predictions.

### B3.2. Consistency

As part of the assessment of data quality, internal consistency of the estimates was examined. The methodology used in this report ensured that the results respect inherent relationships among the key indicators of population and labour market. For example, the number of international migrants in the labour force (MW) and the number of employed international migrants must always be lower than the international migrant working-age population and MW, respectively. The same requirements apply to the estimated labour market indicators for non-migrants, which were calculated as the difference between benchmark labour market data and estimated migrant labour market data to preserve the values for migrants derived from the different models.

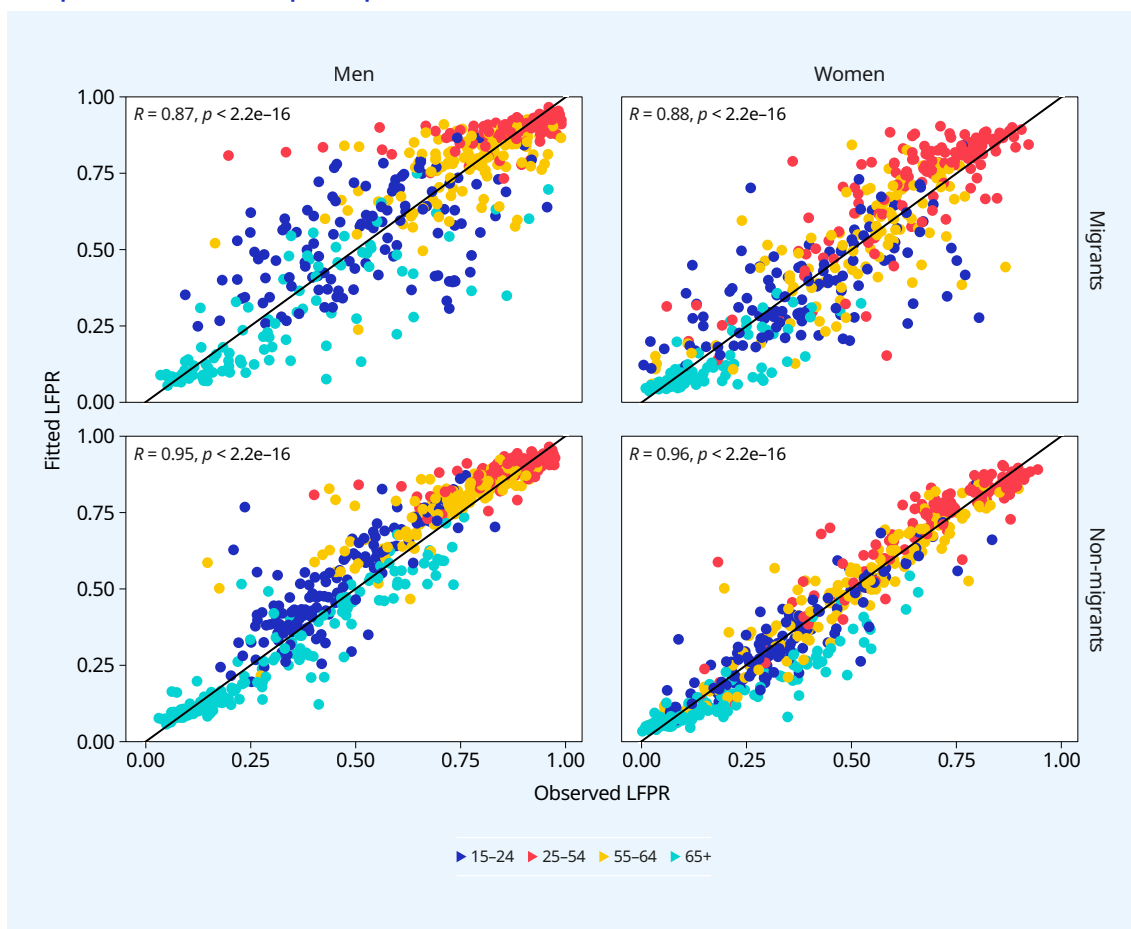
Overall, this approach performed well, and there was internal consistency except for 0.9 per cent of the cases (26 of the 3,024 categories), all of which were non-migrant categories. For those few cases, another approach was used to adjust the estimated labour market indicators to benchmark data. The ratio of the migrant labour force (MW) to the labour force by sex and age group estimated by the model was calculated, and this ratio was multiplied by the benchmark labour force. The non-migrant labour force was then calculated as the difference between this adjusted MW and the benchmark labour force.

### B.3.3. Accuracy

The accuracy of the method was evaluated in two ways. A first simple assessment involved the comparison of the fitted estimates with the observed corresponding indicators reported by countries. Figure B3 plots the relationship between fitted LFPR by age group and country reported LFPR by age group for each sex and migrant status category. The Pearson coefficient shows a very strong correlation in all cases ( $R > 0.8$ ). These results suggest that the model is able to predict accurate estimates.

The accuracy of the method was also assessed using cross-validation, which is a statistical technique used to evaluate the performance and generalizability of predictive models. Cross-validation aims to assess how well a model will perform on unseen data by partitioning the available data into subsets, training the model on some subsets and validating it on the remaining subsets. In this case, 50, 60 and 70 per cent of the original dataset were used as training dataset. The metrics used to assess the accuracy of the method were the out-of-sample  $R$ -squared and root mean square error (RMSE). The out-of-sample  $R$ -squared measures how well the model generalizes to new, unseen data. Out-of-sample  $R$ -squared usually tends to be lower than the in-sample  $R$ -squared. In this case, the metric is equally high for all four versions of the training dataset used for the assessment (table B2). The out-of-sample RMSE measures the average magnitude of the error between fitted and observed values on new, unseen data, and should be close to the in-sample RMSE, indicating that the model generalizes well without overfitting. The out-of-sample RMSE is low in all four versions of the assessment. Considering these metrics, the model has a very good predictive performance for new, previously unseen data.

► **Figure B3. Comparisons between model fitted labour force participation rate and country reported labour force participation rate**



Source: ILO estimates.

► **Table B2. Evaluation of the accuracy of the model from cross-validation assessment**

Cross-validation	Out-of-sample R-squared	Out-of-sample root mean square error
100% training dataset (original dataset)	0.92 <sup>1</sup>	0.505 <sup>1</sup>
70% training dataset	0.91	0.502
60% training dataset	0.91	0.505
50% training dataset	0.91	0.504

<sup>1</sup> This value corresponds to an in-sample metric.

Source: ILO estimates.

## ► Annex C. Country reported national data by international migrant status

► Table C1. List of countries and territories and status of reported national data

	Latest year of data	Definition of migrant <sup>1</sup>	Data source <sup>2</sup>	No. of years with LFPR data	Completeness of data <sup>3</sup>		
					LFPR	EPR	EA
Afghanistan	2014	Birth	HIES	1	I	I	C
Albania	2012	Birth	HIES	3	I	I	I
Angola	2021	Birth	LFS	3	I	I	C
Argentina	2022	Birth	LFS	16	C	C	C
Armenia	2021	Birth	LFS	6	C	C	C
Australia	2021	Birth	PC	21	C	C	C
Austria	2022	Birth	LFS	28	C	C	C
Azerbaijan	2021	Citizenship	Other	0	N	N	I
Bangladesh	2017	Birth	LFS	1	I	I	C
Barbados	2016	Birth	HIES	1	I	I	C
Belarus	2022	Citizenship	LFS	7	I	I	C
Belgium	2022	Birth	LFS	33	C	C	C
Belize	2022	Birth	LFS	5	I	I	C
Benin	2018	Birth	HIES	2	I	I	C
Bhutan	2021	Citizenship	LFS	1	I	I	C
Bolivia (Plurinational State of)	2002	Birth	OH	7	I	I	C
Bosnia and Herzegovina	2022	Birth	LFS	17	C	C	C
Botswana	2022	Citizenship	OH	7	I	I	C
Brazil	2015	Birth	OH	21	C	C	C
Brunei Darussalam	2022	Birth	LFS	7	I	I	C
Bulgaria	2022	Birth	LFS	18	I	I	C
Burkina Faso	2019	Birth	PC	2	C	C	C
Burundi	2020	Birth	HIES	2	I	I	C
Cabo Verde	2022	Birth	LFS	5	C	C	C
Cambodia	2021	Birth	HIES	6	I	I	C
Cameroon	2007	Citizenship	OH	1	I	I	C
Canada	2022	Birth	LFS	3	C	C	C

► Table C1 (cont.)

	Latest year of data	Definition of migrant <sup>1</sup>	Data source <sup>2</sup>	No. of years with LFPR data	Completeness of data <sup>3</sup>		
					LFPR	EPR	EA
Chad	2018	Birth	HIES	1	I	I	C
Chile	2022	Birth	LFS	3	C	C	C
Colombia	2022	Birth	LFS	2	C	C	C
Comoros	2021	Birth	LFS	2	I	I	C
Congo	2009	Birth	LFS	1	I	I	C
Costa Rica	2022	Birth	LFS	20	C	C	C
Côte d'Ivoire	2019	Birth	LFS	2	C	C	C
Croatia	2022	Birth	LFS	17	C	C	C
Cyprus	2022	Birth	LFS	24	C	C	C
Czechia	2022	Birth	LFS	21	C	C	C
Democratic Republic of the Congo	2020	Birth	HIES	1	I	I	C
Denmark	2022	Birth	LFS	33	C	C	C
Djibouti	2017	Citizenship	OH	1	I	I	C
Dominican Republic	2022	Birth	LFS	8	C	C	C
Ecuador	2022	Birth	LFS	17	C	C	C
Egypt	2011	Birth	LFS	4	I	I	C
Estonia	2022	Birth	LFS	26	C	C	C
Eswatini	2021	Birth	LFS	2	I	I	C
Ethiopia	2021	Birth	LFS	1	I	I	C
Fiji	2021	Birth	Other	3	C	C	C
Finland	2022	Birth	LFS	28	I	I	C
France	2022	Birth	LFS	28	C	C	C
Gambia	2018	Birth	LFS	2	C	C	C
Georgia	2018	Citizenship	LFS	10	C	C	C
Germany	2022	Birth	LFS	33	C	C	C
Ghana	2022	Birth	HIES	9	C	C	C
Greece	2022	Birth	LFS	33	C	C	C
Guatemala	2018	Birth	PC	2	C	C	C
Guinea	2019	Birth	LFS	1	C	C	C
Guinea-Bissau	2018	Birth	HIES	1	C	C	C
Guyana	2019	Birth	LFS	2	I	I	C
Haiti	2012	Birth	HIES	1	I	I	I

► Table C1 (cont.)

	Latest year of data	Definition of migrant <sup>1</sup>	Data source <sup>2</sup>	No. of years with LFPR data	Completeness of data <sup>3</sup>		
					LFPR	EPR	EA
Honduras	2019	Birth	OH	10	I	I	C
Hungary	2022	Birth	PC	27	C	C	C
Iceland	2022	Birth	LFS	28	C	C	C
Indonesia	2022	Birth	LFS	5	C	C	C
Iran (Islamic Republic of)	2022	Citizenship	LFS	18	I	I	C
Iraq	2021	Birth	LFS	3	I	I	C
Ireland	2022	Birth	LFS	33	C	C	C
Israel	2022	Birth	LFS	11	C	C	C
Italy	2022	Birth	LFS	32	C	C	C
Japan	2020	Citizenship	PC	0	N	N	C
Jordan	2021	Citizenship	LFS	5	I	I	C
Kenya	2021	Birth	OH	2	I	I	C
Lao People's Democratic Republic	2022	Birth	LFS	2	I	I	C
Latvia	2022	Birth	PC	25	C	C	C
Lebanon	2019	Citizenship	LFS	1	C	C	C
Lesotho	2019	Birth	LFS	1	C	C	C
Liberia	2017	Birth	LFS	4	I	I	N
Lithuania	2022	Birth	LFS	25	C	C	C
Luxembourg	2022	Birth	LFS	33	C	C	C
Madagascar	2012	Citizenship	LFS	1	I	I	C
Malawi	2020	Birth	HIES	5	C	C	C
Malaysia	2022	Citizenship	LFS	4	I	I	C
Maldives	2019	Birth	HIES	3	I	I	C
Mali	2020	Birth	LFS	1	I	I	C
Malta	2022	Birth	LFS	18	I	I	C
Mauritania	2019	Citizenship	HIES	2	I	I	C
Mexico	2022	Birth	LFS	21	C	C	C
Mongolia	2022	Birth	LFS	4	I	I	C
Montenegro	2021	Birth	LFS	11	I	I	C
Namibia	2018	Birth	LFS	2	C	C	C
Nepal	2008	Birth	LFS	1	C	C	C
Netherlands	2022	Birth	LFS	33	C	C	C

► Table C1 (cont.)

	Latest year of data	Definition of migrant <sup>1</sup>	Data source <sup>2</sup>	No. of years with LFPR data	Completeness of data <sup>3</sup>		
					LFPR	EPR	EA
New Caledonia	2020	Birth	LFS	2	I	I	C
New Zealand	2022	Birth	LFS	5	I	I	C
Nicaragua	2005	Birth	HIES	2	I	I	I
Niger	2017	Birth	LFS	3	I	I	C
Nigeria	2019	Birth	HIES	1	I	I	C
North Macedonia	2020	Birth	LFS	8	I	I	C
Norway	2022	Birth	LFS	28	C	C	C
Occupied Palestinian Territory	2021	Birth	LFS	0	N	N	C
Oman	2021	Birth	Other	1	C	C	C
Pakistan	2021	Birth	LFS	1	I	I	C
Panama	2021	Birth	LFS	5	C	C	C
Papua New Guinea	2022	Birth	HIES	2	I	I	I
Paraguay	2022	Birth	OH	7	I	I	C
Peru	2017	Birth	PC	1	C	C	C
Poland	2022	Birth	LFS	26	I	I	C
Portugal	2022	Birth	LFS	33	C	C	C
Republic of Korea	2020	Birth	PC	0	N	N	C
Republic of Moldova	2022	Citizenship	LFS	16	I	I	I
Romania	2022	Birth	LFS	26	I	I	I
Russian Federation	2022	Citizenship	LFS	13	I	I	C
Rwanda	2022	Birth	LFS	5	I	I	C
Saint Lucia	2022	Birth	LFS	6	I	I	C
Samoa	2021	Birth	PC	1	C	C	C
Saudi Arabia	2022	Citizenship	LFS	6	C	C	N
Senegal	2018	Birth	HIES	1	I	I	C
Serbia	2022	Birth	LFS	13	C	C	C
Sierra Leone	2015	Birth	PC	3	C	C	C
Slovakia	2022	Birth	LFS	20	I	I	C
Slovenia	2022	Birth	LFS	27	C	C	C
Solomon Islands	2013	Birth	HIES	1	I	I	C
Somalia	2019	Birth	LFS	1	I	I	I
South Africa	2022	Birth	LFS	2	I	I	C

► Table C1 (cont.)

	Latest year of data	Definition of migrant <sup>1</sup>	Data source <sup>2</sup>	No. of years with LFPR data	Completeness of data <sup>3</sup>		
					LFPR	EPR	EA
Spain	2022	Birth	LFS	33	C	C	C
Sudan	2022	Birth	LFS	1	I	I	C
Suriname	2016	Birth	HIES	1	I	I	C
Sweden	2022	Birth	LFS	28	C	C	C
Switzerland	2022	Birth	LFS	21	C	C	C
Tajikistan	2009	Birth	HIES	2	I	I	C
Thailand	2020	Birth	LFS	3	I	I	C
Timor-Leste	2022	Birth	PC	6	C	C	C
Togo	2017	Birth	LFS	2	C	C	C
Tonga	2021	Birth	PC	2	C	C	C
Trinidad and Tobago	2022	Birth	LFS	11	I	I	C
Tunisia	2020	Citizenship	OH	2	I	I	I
Türkiye	2022	Birth	LFS	14	C	C	C
Uganda	2021	Birth	LFS	5	I	I	C
Ukraine	2021	Birth	LFS	1	C	C	C
United Kingdom	2019	Birth	LFS	30	C	C	C
United Republic of Tanzania	2020	Birth	LFS	5	I	I	C
United States of America	2022	Birth	LFS	29	C	C	C
Uruguay	2019	Birth	LFS	13	C	C	C
Vanuatu	2020	Birth	PC	2	C	C	C
Viet Nam	2020	Birth	LFS	2	C	C	C
Zambia	2022	Birth	LFS	5	C	C	C
Zimbabwe	2021	Birth	LFS	3	C	C	C

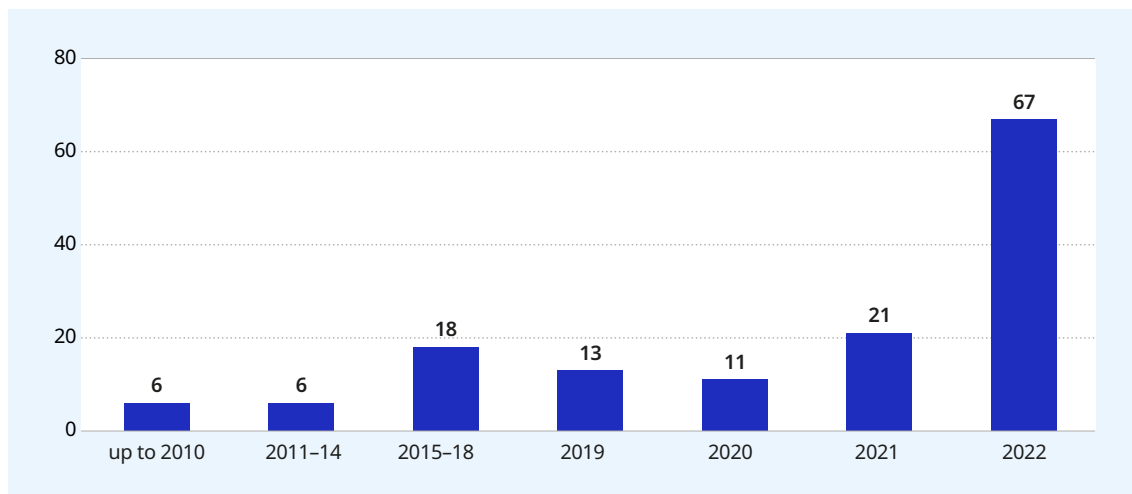
<sup>1</sup> Birth: international migrants are defined as foreign born (definition based on place of birth). Citizenship: international migrants are defined as foreign citizens (definition based on citizenship).

<sup>2</sup> LFS – labour force survey; HIES – household income and expenditure survey; OH – other household-based survey; PC – population census; Other – other survey. Inclusion of refugees, asylum seekers and other related groups depends on the available source used and the country practice. Household-based sources generally exclude populations in collective living quarters, which impacts the coverage of refugees living in camps, migrants living in worker camps and similar groups.

<sup>3</sup> Complete data (C) means that the labour market indicator by international migrant status was reported for all required population categories (there are eight categories corresponding to combinations of sex, migrant status and age groups; for example, one category includes migrant men aged 15–24) for the most recent year with data available. Incomplete data (I) means that the labour market indicator by international migrant status was available for at least one category but missing for others. No data (N) means that the labour market indicator by international migrant status was missing for all categories.

**Source:** ILO estimates.

► **Figure C1. National data on labour force participation rate by migrant status by last reference year (number of countries and territories reporting)**



**Source:** ILO estimates.

## ► Annex D. Additional tables and figures

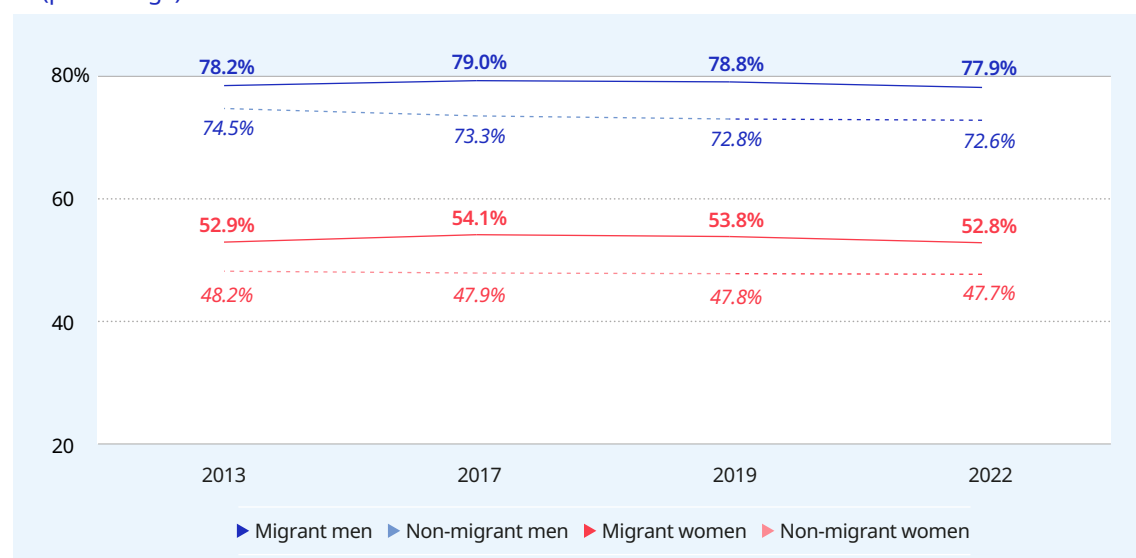
This annex presents additional tables and figures not included in the main body of the report. They provide estimates of the stock of international migrants in the labour force and employed international migrants by sex, age, broad category of economic activity and ILO regions or broad subregions as relevant and offer additional information on trends to complement the results presented in the main text.

► **Table D1. Working-age international migrants, 2022 (million and percentage)**

	Migrant population aged 15+		Proportion of migrants in population aged 15+
	(million)	(%)	(%)
Men	132.3	51.8	4.5
Women	123.3	48.2	4.1
Total	255.7	100.0	4.3

Source: UNDESA, 2020; ILO estimates.

► **Figure D1. Labour force participation rate of international migrants and non-migrants, 2013–22 (percentage)**

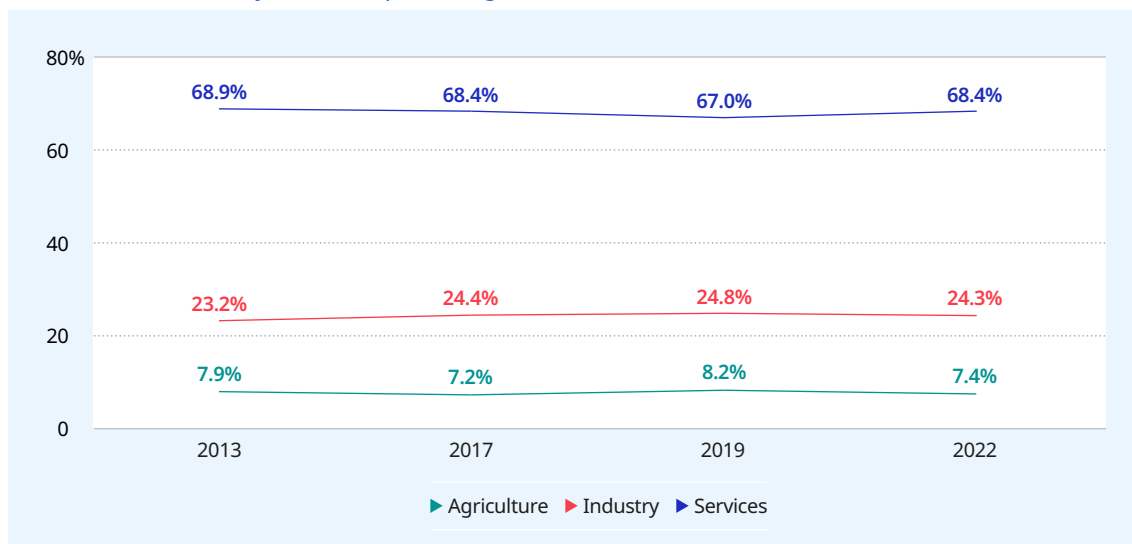


Source: ILO estimates.

► **Table D2. Global age composition of international migrants in the labour force by sex, 2013–22**  
(percentage)

		15–24	25–54	55–64	65+
2013	Men	10.2	75.5	11.0	3.2
	Women	10.1	74.8	12.4	2.7
	Total	10.2	75.2	11.6	3.0
2017	Men	8.8	76.9	11.3	3.0
	Women	8.6	75.7	12.8	2.9
	Total	8.7	76.4	11.9	2.9
2019	Men	9.3	76.5	11.0	3.2
	Women	9.7	75.2	12.0	3.1
	Total	9.4	76.0	11.4	3.2
2022	Men	9.1	75.2	12.2	3.4
	Women	9.5	74.4	12.8	3.3
	Total	9.3	74.9	12.5	3.4

Source: ILO estimates.

► **Figure D2. Global distribution of employed international migrants by broad category of economic activity, 2013–22 (percentage)**

Source: ILO estimates.

► **Table D3. Working-age international migrants by sex and income level of destination country, 2022** (million and percentage)

Income level	Migrant population aged 15+		Proportion of migrants in population aged 15+
	(million)	(%)	(%)
<b>Men</b>			
Low-income	4.6	3.5	2.3
Lower-middle-income	15.7	11.8	1.4
Upper-middle-income	23.2	17.6	2.1
High-income	88.8	67.1	17.1
Total	132.3	100	4.5
<b>Women</b>			
Low-income	4.7	3.8	2.2
Lower-middle-income	15.7	12.7	1.4
Upper-middle-income	21.2	17.2	1.9
High-income	81.8	66.3	15.4
Total	123.3	100	4.1
<b>Total</b>			
Low-income	9.3	3.6	2.3
Lower middle-income	31.3	12.3	1.4
Upper-middle-income	44.5	17.4	2
High-income	170.6	66.7	16.3
Total	255.7	100	4.3

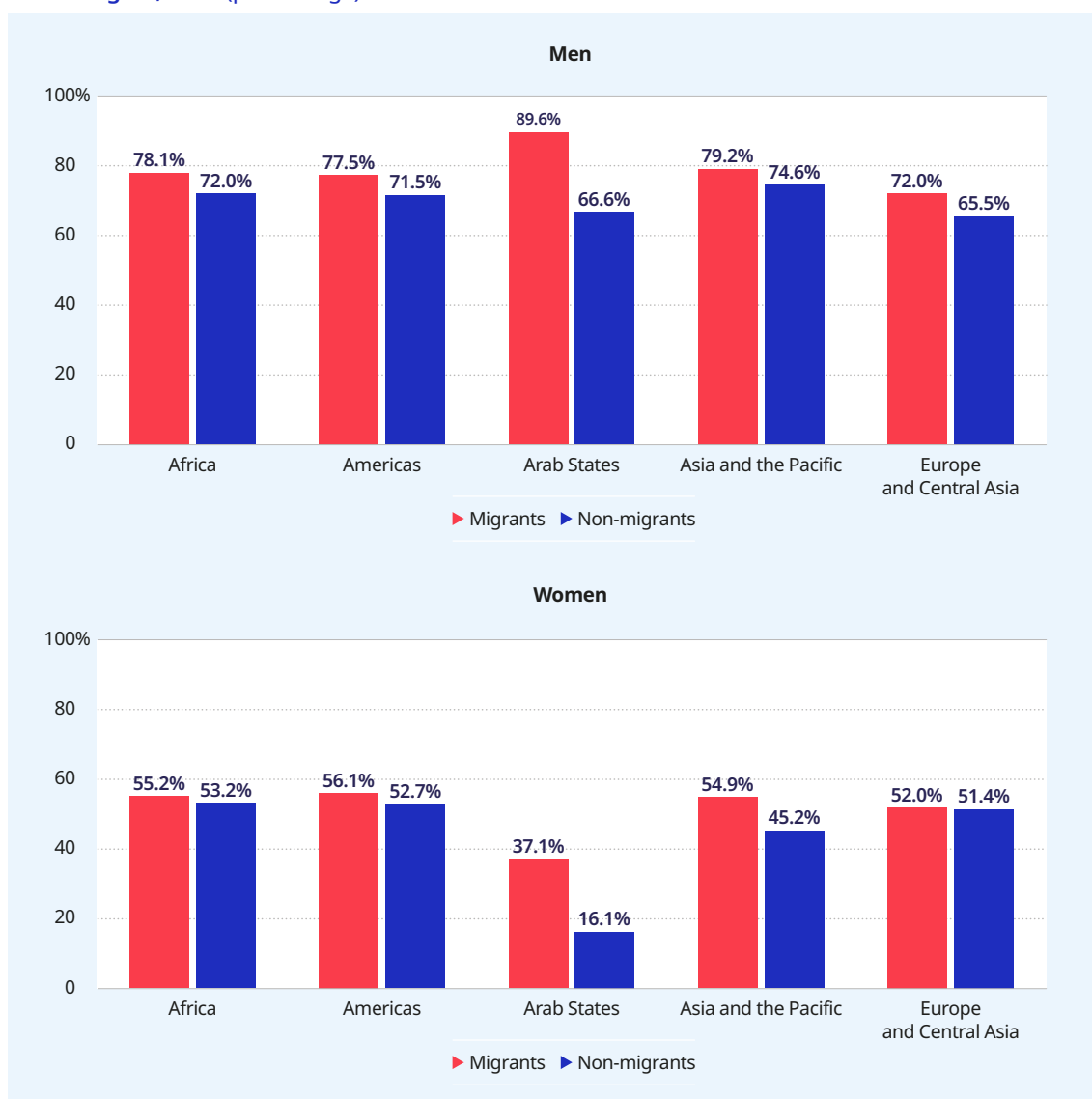
Source: UNDESA, 2020; ILO estimates.

► Table D4. Working age international migrants by sex and region, 2022 (million and percentage)

Region	Migrant population aged 15+		Proportion of migrants in population aged 15+
	(million)	(%)	(%)
<b>Men</b>			
Africa	11.4	8.6	2.7
Americas	33.5	25.3	8.4
Arab States	21.6	16.3	32
Asia and the Pacific	20.4	15.4	1.2
Europe and Central Asia	45.4	34.3	12.4
Total	132.3	100	4.5
<b>Women</b>			
Africa	9.8	7.9	2.3
Americas	35.4	28.7	8.5
Arab States	9.3	7.5	16.6
Asia and the Pacific	20.4	16.5	1.2
Europe and Central Asia	48.5	39.4	12.2
Total	123.3	100	4.1
<b>Total</b>			
Africa	21.2	8.3	2.5
Americas	68.9	27	8.5
Arab States	30.9	12.1	25
Asia and the Pacific	40.8	16	1.2
Europe and Central Asia	93.9	36.7	12.3
Total	255.7	100	4.3

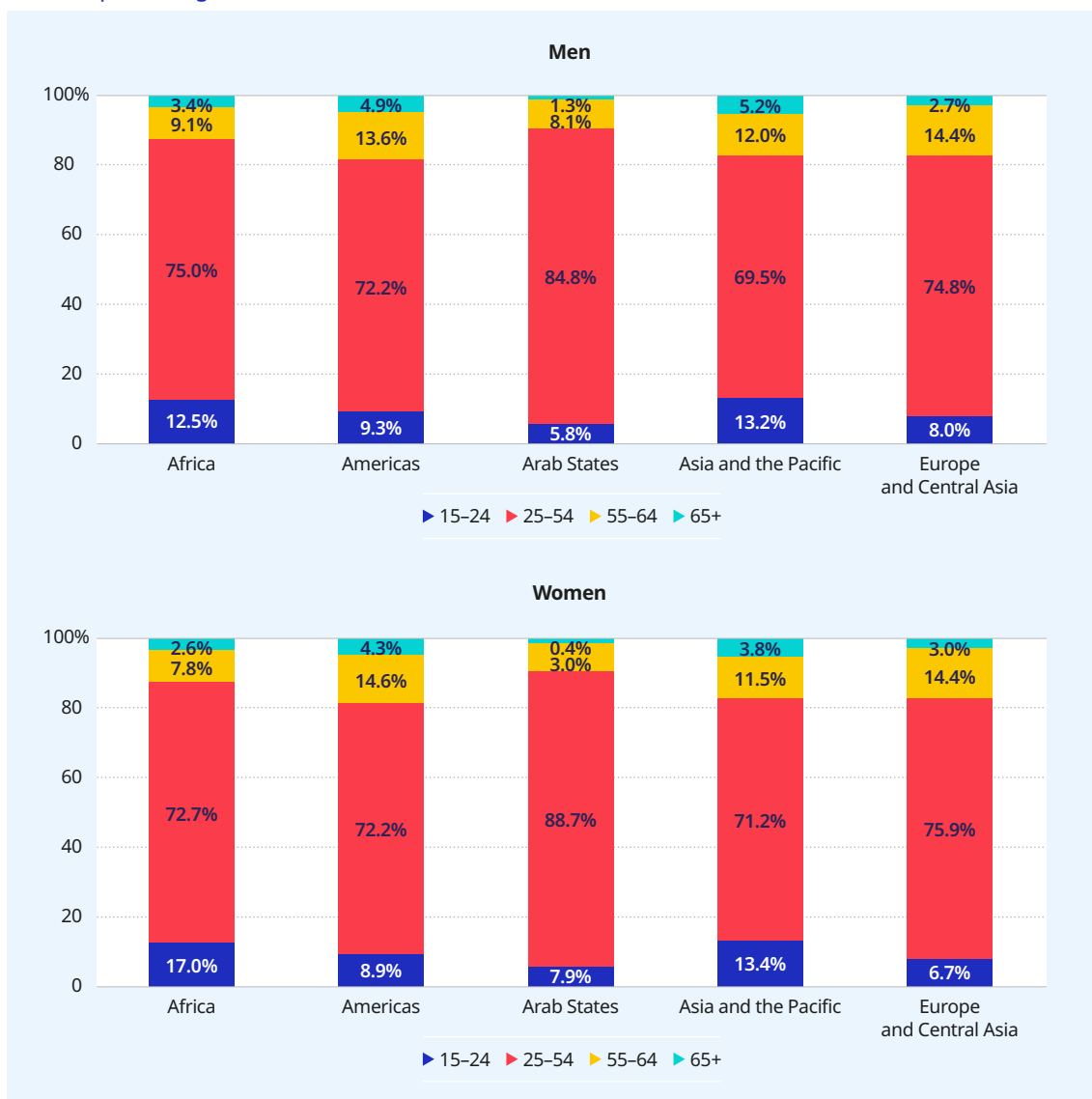
Source: UNDESA, 2020; ILO estimates.

► **Figure D3. Labour force participation rate of international migrants and non-migrants by sex and region, 2022 (percentage)**



**Source:** ILO estimates.

► **Figure D4. Distribution of international migrants in the labour force by sex, age and region, 2022 (percentage)**



**Source:** ILO estimates.

► **Table D5. International migrants in the labour force by sex and broad subregion, 2022**  
(million and percentage)

Broad subregion	Migrant population aged 15+		Migrants as a proportion of population aged 15+	International migrants in the labour force		Migrants as a proportion of labour force
	(million)	(%)		(million)	(%)	
Men						
Northern Africa	1.4	1.1	1.6	0.9	0.9	1.5
Sub-Saharan Africa	9.9	7.5	3.0	8.0	7.7	3.3
Latin America and the Caribbean	5.9	4.4	2.4	4.7	4.6	2.6
Northern America	27.7	20.9	18.1	21.2	20.7	20.6
Arab States	21.6	16.3	32.0	19.2	18.7	38.5
Eastern Asia	4.3	3.2	0.6	3.2	3.1	0.6
South-Eastern Asia and the Pacific	9.9	7.5	3.7	7.9	7.7	3.8
Southern Asia	6.2	4.7	0.8	5.0	4.8	0.9
Central and Western Asia	6.4	4.9	9.4	4.5	4.3	9.3
Eastern Europe	9.1	6.9	8.2	6.8	6.6	9.0
Northern, Southern and Western Europe	29.8	22.5	16.0	21.4	20.8	17.9
Total	132.3	100.0	4.5	102.7	100.0	4.7
Women						
Northern Africa	1.1	0.9	1.2	0.2	0.4	1.3
Sub-Saharan Africa	8.7	7.1	2.5	5.2	8.0	2.4
Latin America and the Caribbean	5.7	4.6	2.2	3.2	4.9	2.4
Northern America	29.7	24.1	18.9	16.7	25.7	18.7
Arab States	9.3	7.5	16.6	3.4	5.2	31.1
Eastern Asia	4.8	3.9	0.7	3.0	4.6	0.7
South-Eastern Asia and the Pacific	9.4	7.6	3.4	6.0	9.3	4.0
Southern Asia	6.2	5.1	0.9	2.1	3.2	1.1
Central and Western Asia	6.7	5.4	9.4	3.0	4.7	9.8
Eastern Europe	10.0	8.1	7.7	4.4	6.8	6.4
Northern, Southern and Western Europe	31.9	25.8	16.2	17.8	27.3	16.9
Total	123.3	100.0	4.1	64.9	100.0	4.5

► Table D5 (cont.)

Broad subregion	Migrant population aged 15+		Migrants as a proportion of population aged 15+	International migrants in the labour force		Migrants as a proportion of labour force
	(million)	(%)		(%)	(million)	
Total						
Northern Africa	2.5	1.0	1.4	1.2	0.7	1.5
Sub-Saharan Africa	18.7	7.3	2.8	13.1	7.8	2.9
Latin America and the Caribbean	11.5	4.5	2.3	7.9	4.7	2.5
Northern America	57.4	22.5	18.5	37.9	22.6	19.8
Arab States	30.9	12.1	25.0	22.6	13.5	37.2
Eastern Asia	9.0	3.5	0.7	6.2	3.7	0.7
South-Eastern Asia and the Pacific	19.3	7.6	3.5	13.9	8.3	3.9
Southern Asia	12.4	4.9	0.8	7.1	4.2	0.9
Central and Western Asia	13.1	5.1	9.4	7.5	4.5	9.5
Eastern Europe	19.2	7.5	7.9	11.2	6.7	7.8
Northern, Southern and Western Europe	61.7	24.1	16.1	39.1	23.3	17.4
Total	255.7	100.0	4.3	167.7	100.0	4.7

Source: ILO estimates.

► Table D6. Distribution of international migrants in the labour force by age and subregion, 2022 (percentage)

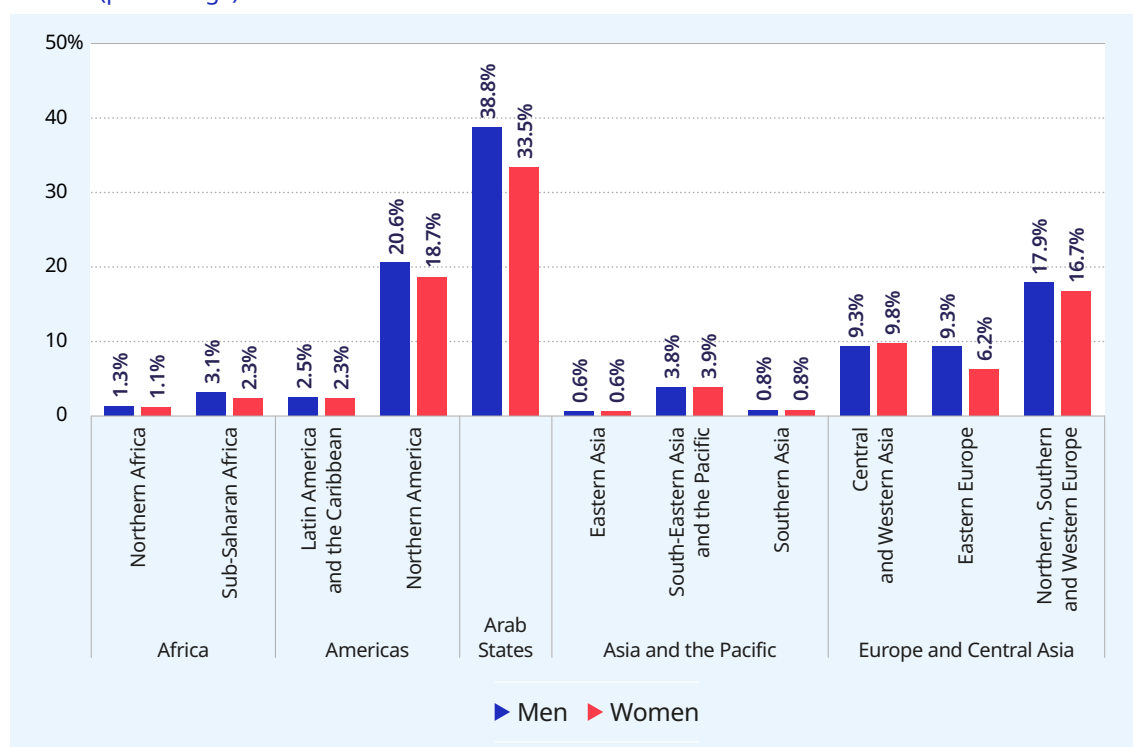
Region	Broad subregion	15–24	25–54	55–64	65+
Africa	Northern Africa	9.7	76.5	10.8	3.1
	Sub-Saharan Africa	14.6	73.9	8.4	3.1
Americas	Latin America and the Caribbean	13.1	76.1	8.0	2.9
	Northern America	8.3	71.4	15.3	5.0
Arab States	Arab States	6.1	85.4	7.4	1.1
Asia and the Pacific	Eastern Asia	7.7	75.4	13.2	3.7
	South-Eastern Asia and the Pacific	16.8	70.1	9.6	3.5
	Southern Asia	11.5	65.9	14.9	7.7
Europe and Central Asia	Central and Western Asia	10.5	73.6	12.3	3.6
	Eastern Europe	5.6	76.1	15.2	3.1
	Northern, Southern and Western Europe	7.4	75.4	14.6	2.6

Source: ILO estimates.

► **Table D7. Employment of international migrants by sex and broad subregion, 2022 (million)**

Region	Broad subregion	Men	Women	Total
Africa	Northern Africa	0.7	0.2	0.9
	Sub-Saharan Africa	7.2	4.6	11.8
Americas	Latin America and the Caribbean	4.4	2.7	7.1
	Northern America	20.4	16.0	36.4
Arab States	Arab States	17.8	3.0	20.8
Asia and the Pacific	Eastern Asia	2.9	2.4	5.3
	South-Eastern Asia and the Pacific	7.7	5.7	13.5
	Southern Asia	4.2	1.5	5.8
Europe and Central Asia	Central and Western Asia	4.1	2.8	6.9
	Eastern Europe	6.7	4.1	10.8
	Northern, Southern and Western Europe	20.1	16.4	36.5
Total		96.3	59.3	155.6

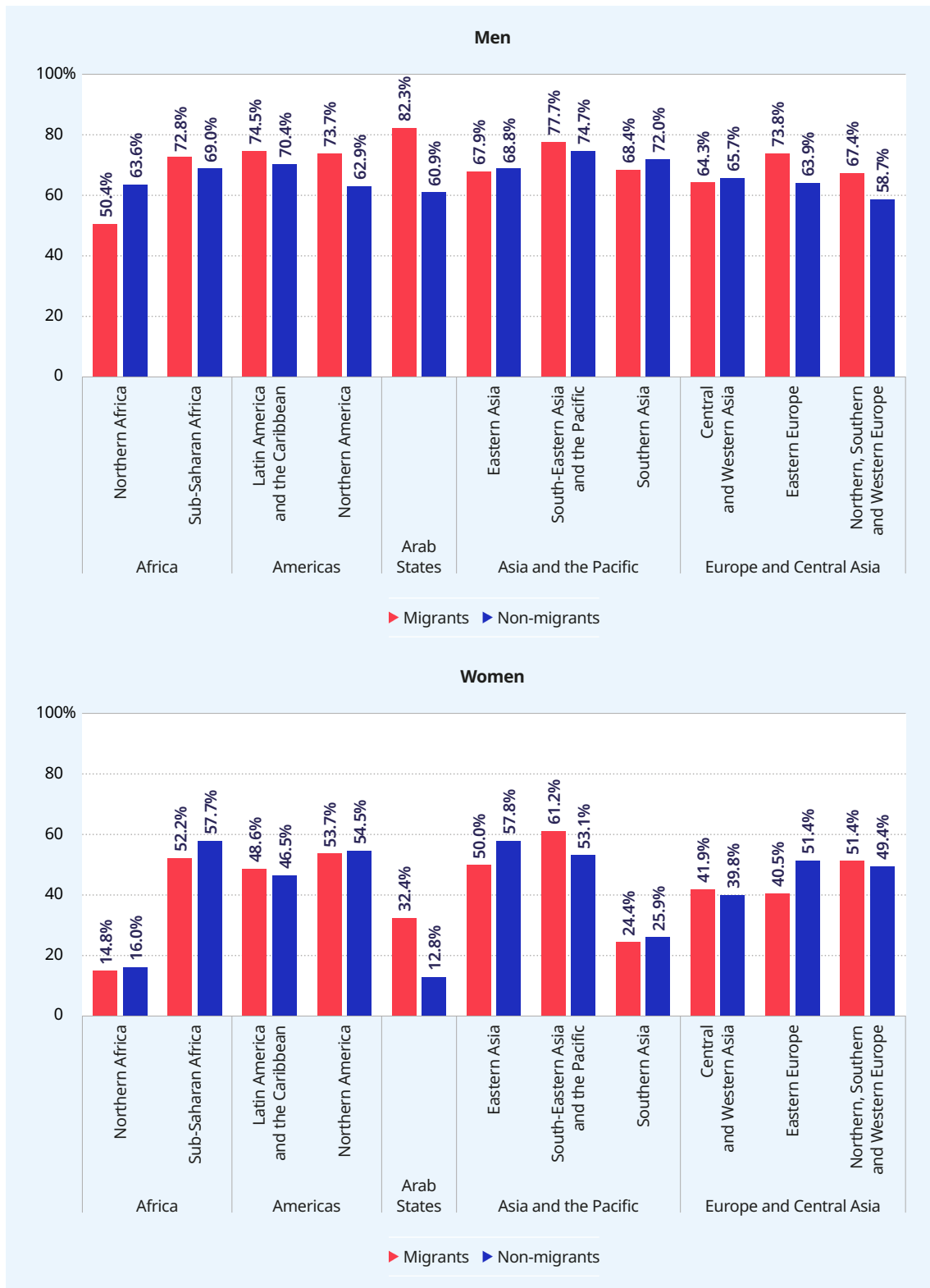
Source: ILO estimates.

► **Figure D5. Share of international migrants in employed population by sex and broad subregion, 2022 (percentage)**

Note: Caution is required for Eastern Asia, as estimates are based on very limited, available national data.

Source: ILO estimates.

► **Figure D6. Employment-to-population ratio of international migrants and non-migrants by sex and broad subregion, 2022 (percentage)**



**Note:** Caution is required for Eastern Asia, as estimates are based on very limited, available national data.

**Source:** ILO estimates.

► **Table D8. Distribution of international migrants in the labour force by sex, broad category of economic activity and broad subregion, 2022 (percentage)**

Region	Broad subregion	Agriculture	Industry	Services
Africa	Northern Africa	27.7	22.7	49.7
	Sub-Saharan Africa	51.7	11.1	37.2
Americas	Latin America and the Caribbean	14.6	21.9	63.6
	Northern America	1.6	19.4	79
Arab States	Arab States	6.4	22.2	71.4
Asia and the Pacific	Eastern Asia	8.6	31.9	59.5
	South-Eastern Asia and the Pacific	28.6	22.5	48.9
	Southern Asia	42.3	25.5	32.2
Europe and Central Asia	Central and Western Asia	17.4	25.3	57.3
	Eastern Europe	7.9	28.5	63.6
	Northern, Southern and Western Europe	3.0	22.0	75.0

**Source:** ILO estimates.

## ► Annex E. International Standard Industrial Classification of All Economic Activities

► Table E1. International Standard Industrial Classification of All Economic Activities (ISIC) Rev. 4

Broad category	Sections
Agriculture	A. Agriculture, forestry and fishing
Industry	B. Mining and quarrying C. Manufacturing D. Electricity, gas, steam and air conditioning supply E. Water supply; sewerage, waste management and remediation activities F. Construction
Services	G. Wholesale and retail trade; repair of motor vehicles and motorcycles H. Transportation and storage I. Accommodation and food service activities J. Information and communication K. Financial and insurance activities L. Real estate activities M. Professional, scientific and technical activities N. Administrative and support service activities O. Public administration and defense; compulsory social security P. Education Q. Human health and social work activities R. Arts, entertainment and recreation S. Other service activities T. Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use U. Activities of extraterritorial organizations and bodies

Source: UN, 2008.

## ► Annex F. Identification of persons in care employment

This annex summarizes the operational definition of persons in care employment.<sup>18</sup> Persons in care employment can be identified using the International Standard Classification of Occupations (ISCO-08) (ILO 2008) and the International Standard Industrial Classification of All Economic Activities (ISIC-04) (UN 2008) at the two-digit level.

► Table F1. Identification of persons in care employment

Main care occupations (ISCO-08 submajor group and title)	Other care occupations (only for jobs in care sectors) <sup>1</sup>	Care sectors (ISIC-04 division and title)
22. Health Professionals	13. Production and Specialized Services Managers	85. Education
23. Teaching Professionals		86. Human health activities
32. Health Associate Professionals	26. Legal, Social and Cultural Professionals	87. Residential care activities
53. Personal Care Workers	34. Legal, Social, Cultural and Related Associate Professionals	88. Social work activities without accommodation
	51. Personal Service Workers	97. Activities of households as employers of domestic personnel
	91. Cleaners and Helpers	

<sup>1</sup> Employed persons whose occupations are under these ISCO-08 codes are considered in care employment only if their branch of economic activity is included among the ISIC-04 codes defined as care sectors.

Source: ILO, 2008; UN, 2008.

The combination of care occupations and care sectors makes it possible to identify persons in care employment and group them into four categories using ISCO-08 (ILO 2008) and ISIC-04 (UN 2008), as follows:

- Care workers employed in care sectors:
  - Persons employed in ISIC 85, 86, 87 or 88 who are also in ISCO 22, 23, 32 or 53 (core care occupations).
  - Persons employed in ISIC 85, 86, 87 or 88 who are also in ISCO 13.
  - Persons employed in ISIC 85, 86, 87 or 88 who are also in ISCO 26 or 34.
- Domestic workers (employed by households):
  - All persons employed in ISIC 97.
- Care workers employed in non-care sectors:
  - All other persons employed in ISCO 22 except for those working in ISIC 75 Veterinary activities.
  - All other persons employed in ISCO 23.
  - All other persons employed in ISCO 32 except for those working in ISIC 75 Veterinary activities.
  - All other persons employed in ISCO 53.
- Non-care workers employed in care sectors:
  - Persons employed in ISIC 85, 86, 87 or 88 who are not in ISCO 22, 23, 32, 53, 13, 26 or 34.

<sup>18</sup> For definitions, see <https://ilostat ilo.org/methods/concepts-and-definitions/description-worker-and-sector-profiles/>.



## Advancing social justice, promoting decent work

The International Labour Organization is the United Nations agency for the world of work. We bring together governments, employers and workers to drive a human-centred approach to the future of work through employment creation, rights at work, social protection and social dialogue.

This fourth edition of the *ILO Global Estimates on International Migrant Workers: International Migrants in the Labour Force* presents the most recent estimates on the stock of international migrants in the labour force, employed international migrants and unemployed international migrants, for the reference year 2022. The estimates are disaggregated by sex, country income group and region.

The periodic publication of this report offers valuable insights into trends in international labour migration, recognizes the contribution of migrant workers to destination labour markets and highlights the critical importance of data-driven policymaking at national, regional and global levels.

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International Labour Organization  
Route des Morillons 4  
1211 Geneva 22  
Switzerland