International Labour Organization

The migrant pay gap: Understanding wage differences between migrants and nationals

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Preface

Labour migration can be an important vehicle for development, when it is fair, well-governed and allows migrant workers to access decent work. The world counts an estimated 164 million migrant workers, almost half of them women. They comprise 4.7 per cent of the global workforce and contribute enormously to societies' growth and development. Yet, migrant workers are too often treated unfairly and unequally in the labour market.

While the actual impact of the multiple crises triggered by the Covid-19 pandemic is still unknown, anecdotal evidence suggests that migrant workers are some of the most affected. At the onset of the COVID-19 crisis, millions of migrant workers were forced to return home after losing their jobs. This has had a serious impact on their income and wages, and on the support they can provide to their families.

The pandemic has exposed serious deficiencies in labour migration governance, much of which have been in place for years. In all countries, migrant workers are facing problems of discrimination and exclusion, but the COVID-19 pandemic has exacerbated these deeply entrenched attitudes. This Report, by examining prevailing wage differences between migrant workers and nationals, shows that even prior to the pandemic wage inequalities were significant and even widening.

The *Report on the Migrant Pay Gap: Understanding wage differences between migrants and nationals* – analyses wage data of 49 countries that are available the latest year prior to the COVID 19 crisis. It provides evidence on how dire the situation actually is with regard to pay – so vital to the daily life of workers and their families. The report finds that in the years before the pandemic wage inequalities between migrant workers and nationals were of very high levels in many countries, and widening in some. Women migrant workers are doubly discriminated against, especially with regard to pay. Therefore it is plausible to expect a further widening of the wage gap between nationals and migrants.

Many migrant workers are in informal or low paid employment, and concerns surrounding violations of the principle of equal pay between migrant workers and nationals for work of equal value, are real and growing. The crisis threatens to increase inequalities and labour market differences between migrant workers and nationals, for example with respect to access to employment, types of work, working conditions or skills development opportunities, which may in turn further deepen migrant pay gaps, leaving migrant workers further behind and countries in arrears in meeting their commitments to the 2030 Sustainable Development Agenda.

Many migrant workers, particularly women, are working in essential jobs and contributing greatly to community well-being, particularly in the care and agriculture sectors, and yet as this Report shows, the wage gap is strikingly high in these sectors. In some high-income countries migrant care workers earn over a fifth less than non-migrant care workers, despite their tireless efforts and contributions to a sector which is at the heart of humanity and prosperity of our societies. Many of them are the frontline workers in fighting the current health crisis, and well-designed action is needed to avoid a deepening of the migrant pay gaps and to improve conditions of work in this sector, in particular for migrant workers. The Report provides an important way forward by showing how to measure working conditions, especially wages, of migrant workers, on the basis of which we can identify the extent of the problem, and define the appropriate measures.

The Report finds that discrimination is likely to be one of the main reasons that the migrant gap is so large. If we can address this discrimination and eliminate the migrant pay gap we can help to bring an end to such inequalities, including the gender pay gap, substantially reduce poverty, and allow migrant workers to access their fair share of the benefits of decent employment

As countries emerge from the crisis, as borders open and vaccines are being developed, human mobility will continue apace. How countries choose to move forward from the lessons we have learned during the pandemic will test societies' commitment to building back better. We can take a step in the right direction by eliminating the migrant pay gap, and the attendant discrimination and inequality of treatment of migrant workers. There is no better nor more important time to do so than now.

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A migrant worker is seen on her day off in Jordan's Al Hassan Industrial Zone in the country's north.

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Abbreviations and acronyms

ASEAN	Association of Southeast Asian Nations
CEACR	Committee of Experts on the Application of Conventions and Recommendations (ILO)
CEO	Chief executive officer
COVID-19	Coronavirus disease 2019
EU	European Union
EU-SILC	EU Statistics on Income and Living Conditions
GCC	Gulf Cooperation Council
HIC	High-income country
ICLS	International Conference of Labour Statisticians
ICT	Information and communication technology
ILO	International Labour Organization
IOM	International Organization for Migration
ISCO	International Standard Classification of Occupations
ISIC	International Standard Industrial Classification of All Economic Activities
KNOMAD	Global Knowledge Partnership on Migration and Development (World Bank)
LMIC	low- and middle-income country
OECD	Organisation for Economic Co-operation and Development
SDGs	Sustainable Development Goals
UN-DESA	United Nations Department of Economic and Social Affairs
UNCTAD	United Nations Conference on Trade and Development

Seasonal migrant workers at the Noordoostpolder tulip fields, Netherlands. May 2017. © shutterstock.com

Key findings

This report presents a comprehensive global analysis of the migrant pay gap based on data covering 49 countries (33 High Income Countries (HICs) and 16 Low- and Middle-Income Countries (LMICs)) and about a quarter of wage employees worldwide. The 49 countries host nearly half of all international migrants and roughly 33.8 per cent of migrant workers worldwide. The report aims to contribute to efforts towards achieving the SDG targets 8.5 and 8.8, which respectively call for equal pay for work of equal value, and protected labour rights for all workers, including migrant workers, in particular women migrant workers and those in precarious employment in the framework of the United Nations agenda for 2030.

The following summarizes the key messages and conclusions from the study:

A. **Migrant workers in HICs earn about 12.6 per cent less than nationals, on average.** Notable variations, however, exist among countries and across different wage groups, with migrant workers earning as much as 42.1 per cent less than nationals on average (in Cyprus), and 71 per cent less than nationals among low-skilled workers.

B. **Within a labour market already quite unfavourable to migrant workers in HICs, women migrant workers face a double wage penalty, both as migrants and as women.** The pay gap between men nationals and migrant women in HICs, for example, is estimated at 20.9 per cent, which is much wider than the aggregate gender pay gap in HICs (16.2 per cent).

C. **Migrant care workers in HICs (majority of whom are women) also face a double wage penalty for being migrants and care workers.** The pay gap between migrant care workers and non-migrant care workers is about 19.6 per cent compared to the aggregate migrant pay gap of 12.6 per cent.

D. **The migrant pay gap has widened in many HICs compared to ILO's previous estimates.** Among the 20 countries with the most significant migrant pay gaps, the estimated pay gap has widened in more than half of them compared to previous estimates reported in the ILO Global Wage Report 2014/15. The pay gap in these countries has increased by 1.3 to 26.4 percentage points.

E. Migrant workers have been among the hardest hit by the economic downturn associated with the COVID-19 pandemic, both in terms of employment losses and a decline in earnings for those who have remained in employment.

F. Despite similar levels of education, migrant workers in HICs tend to earn less than their national counterparts within the same occupational category.

G. **Migrant workers in HICs are more likely to work in lower-skilled and low-paid jobs that do not match their education and skills. Higher-educated migrant workers in HICs are also less likely to attain jobs in higher occupational categories relative to non-migrant workers.** This reflects the fact that migrants in HICs are likely to be affected by skills mismatch and have difficulties transferring their skills and experience across countries, in large part due to lack of adequate skills recognition systems for qualifications of migrant workers.

H. **Among LMICs, migrant workers tend to earn about 17.3 per cent more than nationals on average, with notable exceptions.** This is due, in part, to the significant proportion of temporary high-skilled expatriate workers among the total migrant population in some countries who tend to pool up the average wage of migrant workers.

I. **A significant part of the migrant pay gap remains unexplained even when workers' characteristics such as education, experience, age, or location are accounted for.** About 10 percentage points of the estimated 12.6 per cent migrant pay gap in HICs remains unexplained by labour market characteristics of migrant workers and nationals. This may point to discrimination against migrant workers with respect to pay.

J. **If the unexplained part of the migrant pay gap is eliminated, the migrant pay gap would nearly disappear in many countries and reverse in others.** If wages were set based on factors such as education, experience and age, the migrant pay gap would stay very low in many countries and would even reverse in favour of migrant workers in some countries.

K. **The rate of working poverty among migrants, in particular migrant women would significantly reduce if the unexplained part of the pay gap is to be eliminated.** Measures to eliminate the unexplained part of the migrant pay gap can reduce the proportion of low-paid migrant workers, by about 49 per cent in the sample of HICs and about 12 per cent in the sample of LMICs.

L. **In some selected countries (14 LMICs and two HICs), 62.4 per cent of migrant wage workers are informally employed compared to 50.8 per cent of nationals.** Informal employment is higher among migrant women than among their men counterparts.

M. **In HICs, migrant workers are disproportionately represented in the primary sector and take far more jobs in the secondary sector than their national counterparts.** More migrant workers, in particular migrant women, tend to work under temporary contracts and part-time.

Executive summary

In many countries, men and women migrant workers represent a significant share of the workforce and contribute importantly to societies and economies.[1] According to the most recent ILO estimates, there are 164 million migrant workers worldwide, of whom close to half are women. Despite the positive migration experiences of many, migration is frequently associated with abusive practices and non-respect of fundamental rights at work. Migrant workers often face inequality of treatment in the labour market, including with respect to wages, access to employment and training, conditions of work, social security, and trade union rights. Moreover, recruitment fraud and abuse can cause migrant workers, especially low- and semi-skilled workers, to face high recruitment fees and related costs depleting their wages and savings. One way to measure inequalities between migrant workers and nationals is by comparing the earnings of migrant workers to that of non-migrant workers with similar labour market characteristics.

The general principle of equal pay for work of equal value is set out in the preamble of the ILO Constitution and in ILO standards concerning equality and non-discrimination. The dedicated ILO Conventions concerning migrant workers also require ratifying States to ensure equal treatment between migrant workers and nationals with respect to remuneration. However, the ILO supervisory bodies have noted on several occasions non-compliance with this principle and have pointed to significant unlawful differences between migrant workers and nationals, in law or in practice.

Previous ILO research, including the ILO Global Wage Report 2014/15,[2] has also highlighted the existence of significant wage differences (called the migrant pay gap) between migrant workers and non-migrant workers in some countries. At the national level, there have been attempts to analyse the migrant pay gap in several countries (some of which are documented in this report). However, global analysis of the migrant pay gap is limited. Nonetheless, understanding the migrant pay gap is critical not just for ensuring protection of men and women migrant workers around the world and avoiding social dumping, but also, for avoiding unfair competition and labour market distortions. Addressing the migrant pay gap, including by affording migrant workers equality of treatment, will contribute to well-functioning labour markets, which will be particularly important as countries seek to emerge and build back after the COVID-19 crisis. Further analysis is needed to understand the extent of the migrant pay gap around the world, including differences in pay between migrant men and migrant women. This report is a first attempt to capture the migrant pay gap, including its gender dimension at the global level.

The report uses recent available data from 49 countries (where labour market data covering wages of migrant and non-migrant workers are available) that span the five regions of the ILO and which together represent about a quarter of wage employees worldwide.[3] The 49 studied countries, comprising 33 High Income Countries (HICs) and 16 Low- and Middle-Income Countries (LMICs), host nearly half (49.4 per cent) of all international migrants and roughly 33.8 per cent of migrant workers worldwide. It is important to note that the quantitative data on labour market outcomes, including data on wages of migrant and non-migrant workers used for the analysis in this report predate the COVID-19 crisis period.

Based on the data sets, the report discusses differences in labour market outcomes of migrant workers and nationals of the 49 countries, including gender differences. It highlights migrant pay gaps across these countries with a view to facilitating the adoption and implementation of evidence-based labour migration policies around the world, ensuring that these are gender-responsive. The report also contributes to the work towards achieving SDG tartgets 8.5 and 8.8, which respectively call for "equal pay for work of equal value" and "protected

1 For example, using the most recent wave of the European Union (EU) Labour Force Survey, Fasani and Mazza (2020a), in *Immigrant Key Workers: Their Contribution to Europe's COVID-19 Response*, quantify the prevalence of migrant workers in key professions that the European Commission and Member States have identified and show that migrant "key workers" are essential for critical functions in European societies. They also highlight the contribution of migrant workers to the ongoing effort to keep basic services running in the European Union during the COVID-19 epidemic.

2 ILO. 2015. Global Wage Report 2014/15. Wages and Income Inequality, Geneva.

3 Majority of countries and territories do not have labour market data that include wages of both migrant and non-migrant workers.

labour rights for all workers, including migrant workers, in particular women migrant workers, and those in precarious employment." In addition, the information contained in the report can help set the basis for monitoring wage inequalities between migrant workers and non-migrant workers around the world, and between migrant men and migrant women; help support the case for closing these gaps in line with principles set out in the ILO instruments concerning migrant workers; and encourage further research on policies and practices that are effective for promoting change.

For the purpose of this report, the migrant pay gap – expressed in its simplest form – refers to the difference in average wages between all non-migrant workers and all migrant workers who are engaged in paid employment.

Migrant workers earn 12.6 per cent less per hour than nationals in high-income countries and 17.3 per cent more per hour than nationals in low- and middle-income countries

Based on mean wages, the report estimates that migrant workers earn about 12.6 per cent and 8.6 per cent less per hour than non-migrant workers in the sample of 33 High Income Countries (HICs) and across the Member States of the EU,[4] respectively, while in the sample of 16 Low- and Middle-Income Countries (LMICs) migrant workers tend to earn about 17.3 per cent more per hour than non-migrant workers (see figure E-1). Nevertheless, there are notable variations across countries. A possible reason migrant workers tend to earn more on average than non-migrant workers in some LMICs, among others, is the likelihood of a relatively high proportion of temporary high-skilled "expatriate" workers among the total migrant population in those countries.

Table E-1 shows the list of the 20 widest migrant pay gaps among the countries covered in the report based on the latest available data. The table also compares these latest estimates with those found in the ILO Global Wage Report 2014/15. The list features 18 HICs and two LMICs (Costa Rica and Jordan). On top of the list is Cyprus where men and women migrant workers earn as much as 42.1 per cent less than non-migrant workers, which is a 7.3 percentage points increase from the estimated gap in 2010 (34.8 per cent) according to the ILO Global Wage Report 2014/15. Slovenia and Costa Rica have the second and third widest migrant pay gaps (33.3 per cent and 30.1 per cent, respectively) while Italy and Jordan have the fourth and fifth widest gaps. While the migrant pay gap has reduced in six countries (Argentina, Denmark, Estonia, Greece, Iceland, Spain), it has increased in the remaining countries for which past estimates are available.

Further differences arise when comparisons are done using monthly earnings rather than hourly wages. In fact, using four different combinations – mean hourly, median hourly, mean monthly, and median monthly – the report finds that the migrant pay gap in hourly wages is smaller than the gap in monthly earnings (reflecting inequalities in working time), although the size of the gap varies across countries and across income groups. Figure E-1 shows the different estimates based on hourly wages and monthly earnings. For example, the weighted migrant pay gap in the sample of HICs ranges from about 12.6 per cent (in the case of mean hourly wages) to 18.4 per cent (in the case of median monthly earnings) in favour of non-migrant workers. Similarly, the estimates for the EU ranges from about 8.6 per cent (in the case of mean hourly wages) to 16.8 per cent (in the case of median monthly earnings) in favour of non-migrant workers. In the sample of LMICs, however, a different situation emerges. The estimates range from about 7.5 per cent (in the case of median hourly wages) to 19.1 per cent (in the case of mean monthly earnings) in favour of migrant workers.

Unlike the standard approach where the migrant pay gap simply looks at the difference between the average (or median) earnings of all non-migrant workers and the average (or median) earnings of all migrant workers, a different picture emerges when education, age, and gender are used as factors to account for composition effects in estimating the migrant pay gap. This results in what

4 The United Kingdom is included for the reporting period, while Germany is excluded due to unavailability of data at the time of writing this report.

▶ Table E-1: The 20 widest migrant pay gaps, latest years

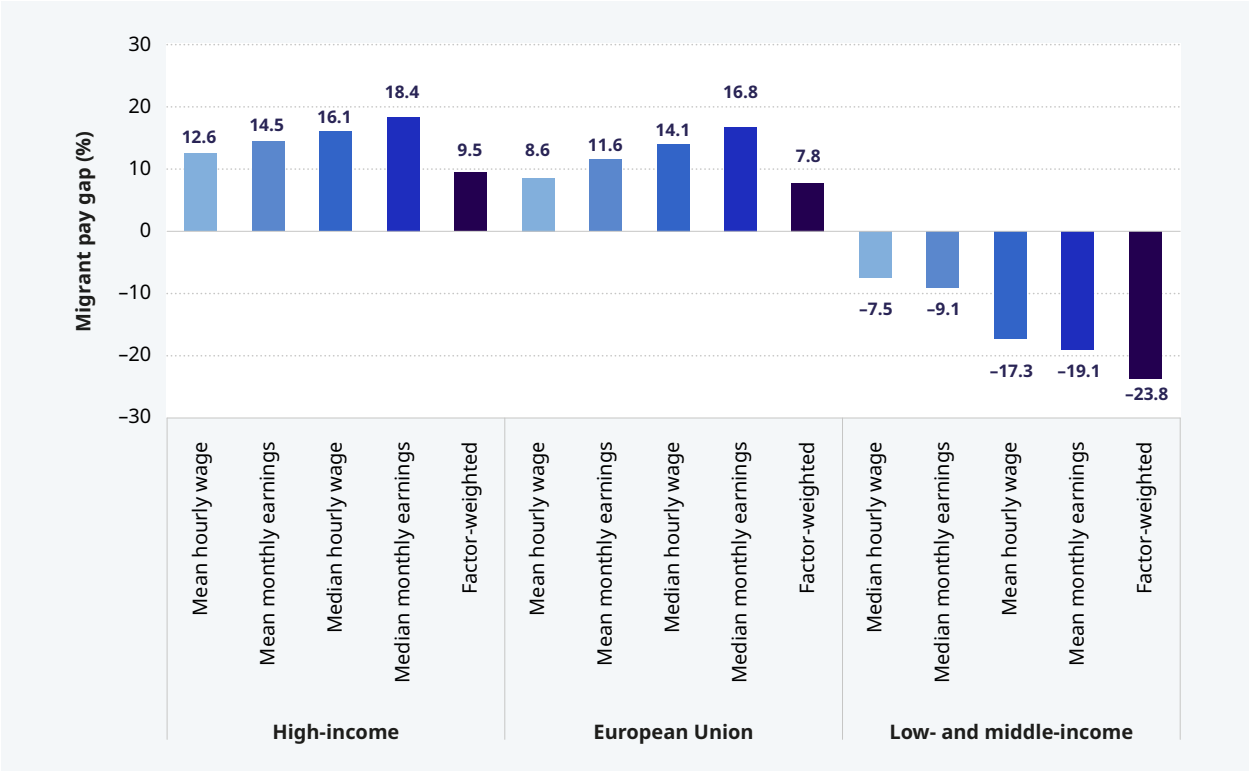
Rank	Country	Migrant pay gap (latest year) (%)	Migrant pay gap 2014/15* (%)	Income Group
1	Cyprus	42.1 ↗	34.8	HICs
2	Slovenia	33.3 ↗	6.9	HICs
3	Costa Rica	30.1	n/a	LMICs
4	Italy	29.6 ↗	26.7	HICs
5	Jordan	29.5	n/a	LMICs
6	Portugal	28.9 ↗	25.4	HICs
7	Spain**	28.3 ↘	29.9	HICs
8	Luxembourg	27.3 ↗	14.9	HICs
9	Austria	25.3 ↗	15.8	HICs
10	Greece**	21.2 ↘	29.9	HICs
11	Estonia**	21.0 ↘	22.7	HICs
12	Ireland	20.6 ↗	19.2	HICs
13	Netherlands	19.9 ↗	16.5	HICs
14	Argentina**	18.1 ↘	22.0	HICs
15	Iceland**	17.8 ↘	24.4	HICs
16	Denmark**	17.3 ↘	21.0	HICs
17	United States	15.3	n/a	HICs
18	Latvia	15.1 ↗	9.0	HICs
19	Norway	15.0 ↗	12.2	HICs
20	Belgium	12.7 ↗	9.8	HICs

Notes: Estimates are based on mean hourly wages. HICs = High Income Countries. LMICs = Low- and Middle-Income Countries. * Retrieved from the ILO Global Wage Report 2014/15. "n/a" indicates that the estimate was not available in the ILO Global Wage Report 2014/15. ↘ Migrant pay gap decreased from the previous estimate based on the ILO Global Wage Report 2014/15. ↗ Migrant pay gap increased from the previous estimate based on the ILO Global Wage Report 2014/15.

is called the *factor-weighted* migrant pay gap.[5] In comparison to the migrant pay gap based on the standard approach, the mean hourly migrant pay gap based on the factor-weighted approach declines to approximately 9.5 per cent (in favour of nationals) in the sample of HICs and 7.8 per cent (in favour of nationals) in the EU. However, in the sample of LMICs, migrant workers tend to earn about 23.8 per cent more than their national counterparts when the factor-weighted approach is used. Relative to the standard approach, the pay gap based on the factor-weighted approach is narrower in the sample of HICs and the EU, and wider in the sample of LMICs because the latter accounts for composition effects in estimating the pay gap; effects that result from the existence of clusters of few workers – especially migrant workers – at certain locations in the wage distribution.

5 The *factor-weighted* migrant pay gap reduces composition effects caused by the existence of clusters in the wage or earnings distribution of wage workers. In essence, migrant and non-migrant wage workers are somewhat grouped into homogeneous subgroups based on education, age and gender, and then the migrant pay gap is estimated for each of the subgroups. A weighted sum of all the subgroups' specific migrant pay gaps is estimated to obtain the *factor-weighted* migrant pay gap, with the weights reflecting the size of each subgroup in the population.

▶ **Figure E-1: Summary of the migrant pay gap based on different estimation approaches**



Notes: Estimates are based on data from a relatively small sample of countries (33 HICs and 16 LMICs). The analysis yields opposing estimates for the sample of HICs and LMICs. Possible reasons for the opposing findings may include, among others, the relatively small sample of LMICs covered by the report; the relatively small proportion of migrant workers in LMICs; and the composition of jobs among migrant workers in LMICS (for example, the likelihood of a relatively high proportion of temporary high-skilled "expatriate" workers among the total migrant population in some countries).

Migrant women and migrant care workers in HICs pay a double wage penalty

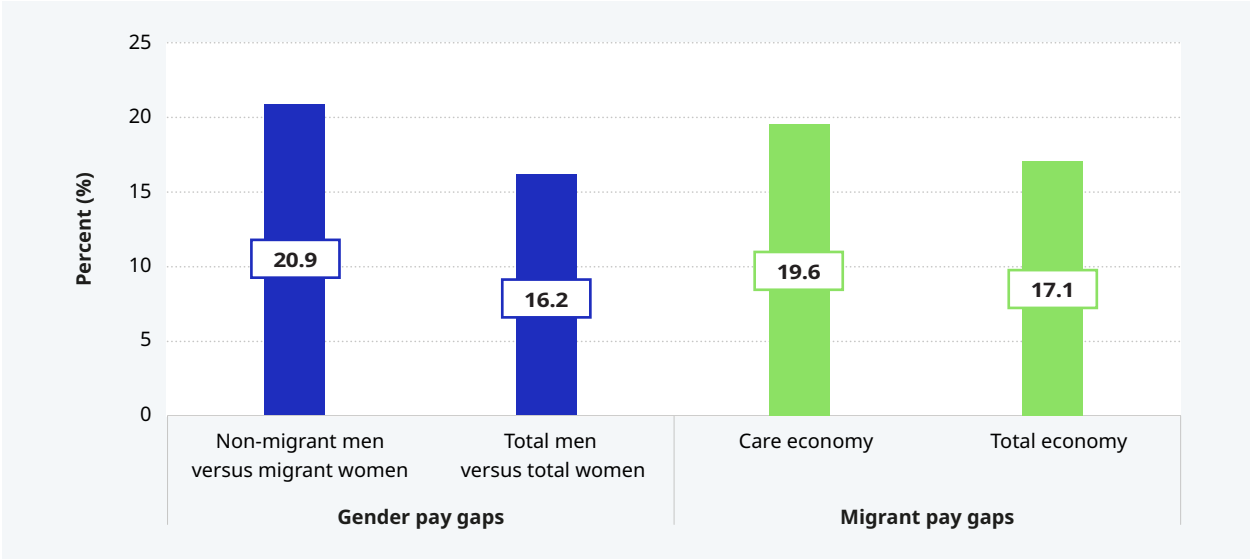
According to ILO global estimates, nearly half of the world's migrant workers today are women. Migrant women workers also represent a significant share of those in domestic work, comprising 73.4 per cent (or 8.45 million) of all migrant domestic workers around the world (in 2013). However, in HICs, migrant women workers tend to pay a double wage penalty for being both women and migrants, a finding consistent with results from the OECD's International Migration Outlook 2020.[6] Likewise, in the care economy where work is often undervalued, migrant care workers – the majority of whom are women – pay a larger wage penalty relative to the average migrant worker in HICs. This finding corroborates previous ILO findings, which reveal that due to the asymmetries between countries of origin and destination and often inconsistent law and policy on migration and care, working conditions of migrant care workers tend to differ to a greater or lesser extent from those of their national counterparts.[7] The care economy, though very broad, is defined in this report to include workers in education, health and social work sectors, including domestic and personal care workers, and care workers in non-care sectors.

The pay gap between non-migrant men and migrant women (based on mean hourly wages) in the sample of HICs is estimated at approximately 20.9 per cent, which is much wider than the estimated aggregate gender pay gap in HICs (16.2 per cent) (see figure E-2). The mean pay gap between

6 OECD (2020), International Migration Outlook 2020, OECD Publishing, Paris, https://doi.org/10.1787/ec98f531-en.

7 International Labour Organization (ILO). 2018. *Care work and care jobs for the future of decent work* (Geneva). King-Dejardin, A. 2019. *The social construction of migrant care work. At the intersection of care, migration and gender* (Geneva, ILO).

▶ **Figure E-2: Double penalties for migrant women and migrant care workers in HICs**



Note: The aggregate gender pay gap is retrieved from the ILO Global Wage Report 2018/19.

migrant workers and non-migrant workers – men and women combined – in the care economy is approximately 19.6 per cent per hour as compared to the aggregate pay gap between all migrant workers and non-migrant workers of about 17.1 per cent in the sample of countries for which care workers can be uniquely identified. Understanding the underlying causes for these double wage penalties in the national context, and adopting measures to eliminate them, would significantly contribute to reducing wage inequalities.

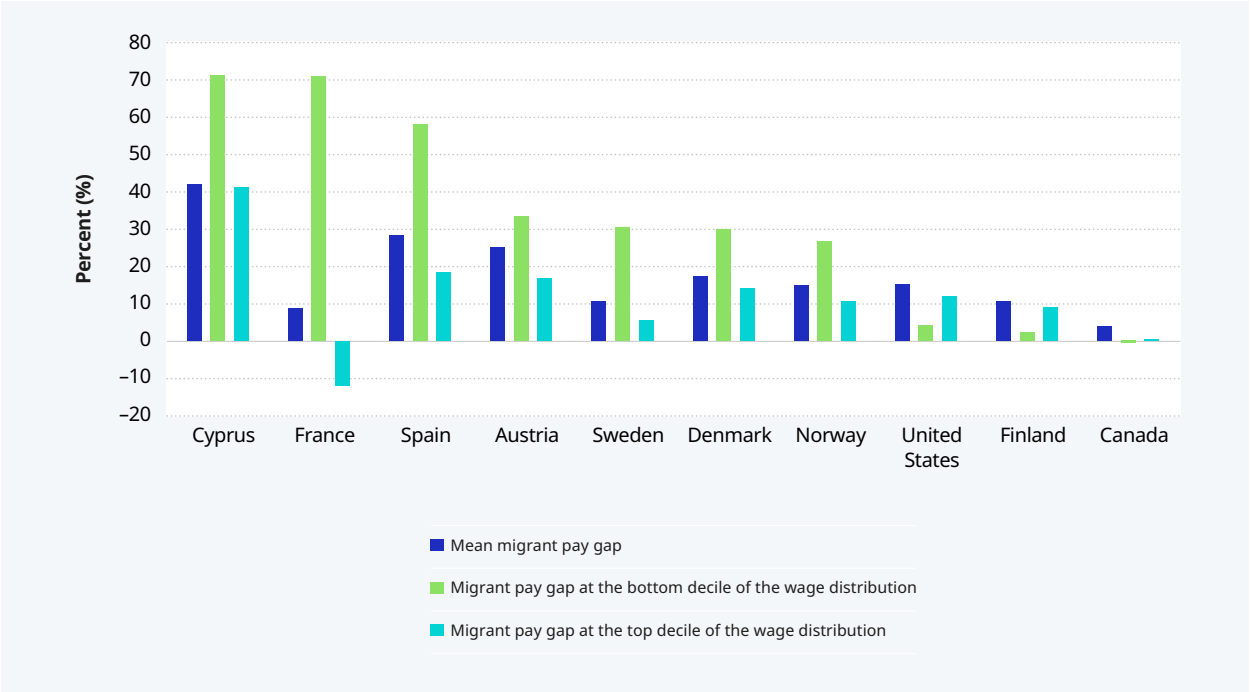
Estimating migrant pay gaps at different points in the wage distribution provides insights on how targeted policies can affect these gaps

Migrant workers are often concentrated at certain locations in the wage distribution, for example, around the minimum wage. To identify where in the wage distribution the migrant pay gap is widest, the report estimates the hourly migrant pay gap at ten different locations in the wage distribution, that is, the gap for the bottom 10 per cent wage earners up to the gap for the top 10 per cent earners.

The results show that the pay gap varies significantly across the hourly wage distribution of each country. The following patterns appear to stand out. First, in some countries, there is a tendency for the migrant pay gap to be strikingly high at the bottom deciles but declines steadily from the lower to upper points in the hourly wage distribution. This could possibly imply non-compliance with or exclusion of migrant workers from minimum wage legislation. Exclusion from minimum wage coverage can take many forms. In some countries, national provisions in force may explicitly provide for reduced minimum wage rates for migrant workers. Migrant workers could also be excluded because there is no minimum wage for the sector in which they are primarily employed. Likewise, migrants may not benefit from minimum wage coverage because they are not members of a trade union that is a party to the collective agreement covering the sector of activity concerned.

Among the sample of HICs, this is the case in Austria, Cyprus, Denmark, France, Norway, Spain, and Sweden, where the migrant pay gap at the first and/or second deciles of the hourly wage distribution widens significantly. However, the gap shrinks as it moves from the lower to upper ends of the wage distribution. Figure E-3 reports the mean migrant pay gap in the economy together with the pay gap at the top and bottom deciles of the wage distribution for the aforementioned countries. Clearly, the pay gap at the bottom decile far outweighs the mean migrant pay gap in each of these countries. In the case of France, for example, although the mean gap is estimated at about

▶ **Figure E-3: The mean migrant pay gap and the pay gap at the top and bottom deciles of the wage distribution**



Note: Estimates are based on mean hourly wages.

9.0 per cent, the gap at the bottom decile of the wage distribution is approximately 71.1 per cent but declines sharply to about 6.3 per cent at the ninth decile and eventually becomes negative at the tenth decile. This magnitude of disparity has significant policy implications for poverty eradication and for ensuring decent work among low-skilled migrant workers. For comparison, the figure also presents estimates for Canada, Finland, and the United States in which case the pay gap at the bottom decile is lower than the overall migrant pay gap.

Second, in other countries, although the migrant pay gap appears to be lower at the bottom and top deciles of the hourly wage distribution, the gap is very high in the middle of the distribution. This may possibly reflect underrepresentation of migrant workers in collective representation structures in the middle of the distribution because of difficulties in organizing or because nationals dominate the overall representation, a phenomenon that could be exacerbated if migrants are perceived as a low-wage employment threat to nationals.[8] This pattern is common in countries such as Argentina, Belgium, Canada, Iceland, Luxembourg, the Netherlands, and the United States. For example, in the case of Canada, the migrant pay gap at the bottom and top deciles of the hourly wage distribution are –0.6 per cent and 0.4 per cent (Figure E-3), respectively, but it increases to about 6.5 per cent in the middle of the distribution (i.e. from the fifth to the eight decile).

Third, and particularly in some LMICs, the migrant pay gap widens and narrows, and reverses in favour of nationals or in favour of migrant workers across the hourly wage distribution. This pattern can give an indication of where in the wage distribution temporary high-skilled "expatriate" workers are located in these countries. In Gambia for example, non-migrant workers tend to earn more than migrant workers from the bottom to the fourth decile of the wage distribution. However, the gap reverses in favour of migrant workers from the fifth to the top decile of the distribution, peaking at the ninth decile where migrant workers earn about 54.8 per cent more than non-migrant workers.

8 Rubery, J. 2003. *Pay equity, minimum wage and equality at work*, InFocus Programme on Promoting the Declaration on Fundamental Principles and Rights at Work, Working Paper No. 19 (Geneva, ILO).

A significant part of the migrant pay gap remains unexplained

The report shows that in almost all the studied countries there are wage gaps between non-migrant workers and migrant workers. These gaps arise for multiple and complex reasons that differ from one country to another and vary at different locations in the overall wage distribution.

Similarly to the ILO's Global Wage Report 2018/19, this report adapts the decomposition techniques pioneered by Fortin, Lemieux and Firpo (2011)[9] to divide the migrant pay gap (at different locations in the wage distribution) into two parts: an "explained" part, which is accounted for by observed labour market characteristics, and an "unexplained" part, which captures wage discrimination and includes characteristics that should in principle have no effect on wages. Labour market characteristics here are the so-called human capital characteristics (e.g. age, experience and education); the characteristics that define the jobs held by individuals (e.g. occupational category, contractual conditions or working time); the characteristics that describe the workplace where production takes place (e.g. industrial sector, size of enterprise, geographical location); and personal characteristics such as gender.

The report finds that, on average, education and other observed labour market characteristics explain a relatively small part of the migrant pay gap at different locations in the wage distribution. The unexplained part of the migrant pay gap largely dominates the explained part in most countries, irrespective of income group. On the one hand, the report shows that about 10 percentage points of the weighted migrant pay gap of approximately 12.6 per cent (based on average hourly wages) in the sample of HICs remains unexplained by observed labour market characteristics of migrant workers and nationals. On the other hand, nearly all the 17.3 per cent of the pay gap in favour of migrant workers in LMICs is unexplained, on average. It is significant to add that there are notable exceptions, as well as wide variations across countries and across the wage distribution. Among HICs, differences in observed labour market characteristics have sizeable effects on the migrant pay gap in countries such as Austria, Canada, Luxembourg, Norway, Portugal, Slovenia, the United Kingdom, and the United States, though a significant part still remains unexplained. Among LMICs, the same is true of Bangladesh, Costa Rica, Gambia, Jordan, the United Republic of Tanzania, and Turkey. But in most countries, a large part of the migrant pay gap remains unexplained. For example, in Cyprus (which has the widest estimated pay gap in the sample of HICs), only about 4.4 percentage points of the pay gap of 42.1 per cent is explained by observed labour market characteristics of migrant workers and nationals. Other countries with significantly higher levels of unexplained pay gaps include Argentina, Belgium, Denmark, Greece, Iceland, Ireland, Italy, Jordan, Netherlands, and Spain. In the United States, on the other hand, about 10 percentage points of the estimated migrant pay gap of 15.2 per cent is explained by observed labour market characteristics. Chapter three, section 3.5 shows estimates for all the countries covered in the report.

For similar levels of education, migrant workers in HICs tend to earn less than nationals within the same occupational category

Findings from the report show that, for a given occupation, migrant workers' education levels are similar (at the least) to that of nationals, in particular in the sample of HICs. In spite of this, the results show that, migrant workers tend to earn significantly less than non-migrant workers with the same occupation in most of the studied countries.[10] For example, in the case of France, although migrant workers account for only 3.4 per cent of professional positions across the country, they have similar educational scores as nationals in this occupational category (24.7 and 23.7, respectively). Nevertheless, these migrant workers still earn around 22 per cent less per hour than their national counterparts. This illustrates the fact that migrant workers tend to have lower wage returns to their education relative to nationals, even when they have the similar occupations as nationals.

9 Fortin, N.; Lemieux, T.; Firpo, S., 2011. "Decomposition methods in economics", in O. Ashenfelter and D. Card (eds): *Handbook of Labor Economics* (Amsterdam, Elsevier), pp. 1–102.

10 For example, in Argentina, Austria, Belgium, Canada, Cyprus, Denmark, Finland, France, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Sweden, and the United States.

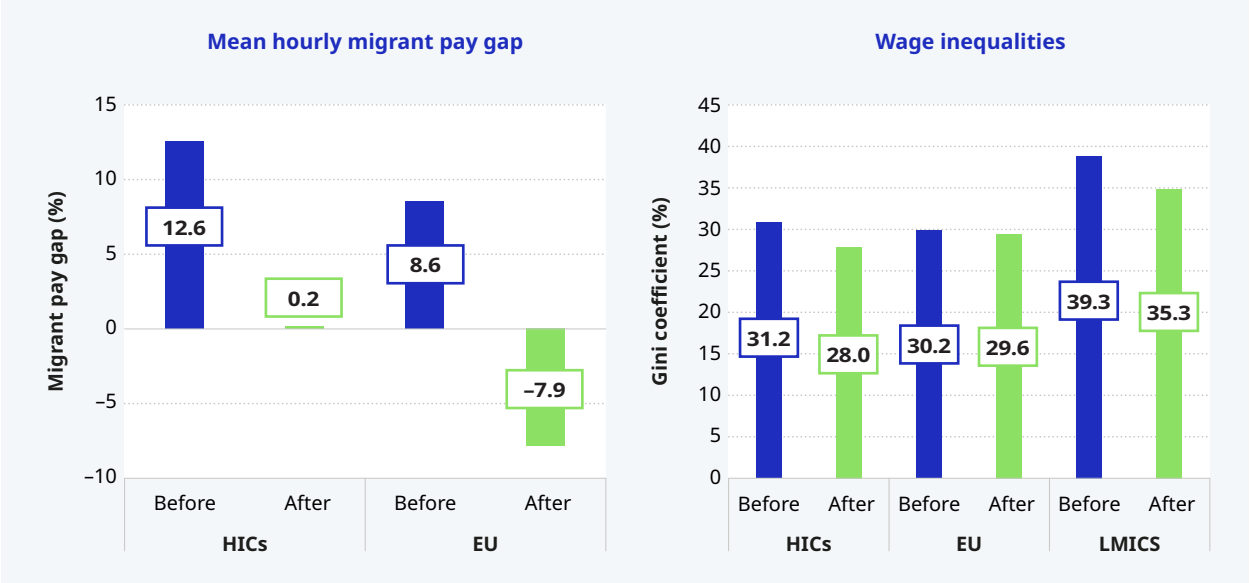
This phenomenon is compounded by the fact that migrants in HICs are typically likely to be affected by skills mismatch and may have difficulties transferring their skills and experience across countries. Moreover, migrant workers' skills may not be fully recognized by employers and they may resort to continuous work in lower-skilled and low-paid jobs that do not account for their higher skills. The report also finds that, given similar levels of education, the probability of being employed in a semi- or high-skilled job is much lower for migrant workers in HICs than for non-migrant workers in these countries.

Measures to eliminate the unexplained part of the migrant pay gap would keep pay differentials between nationals and migrant workers low, and reduce overall wage inequalities

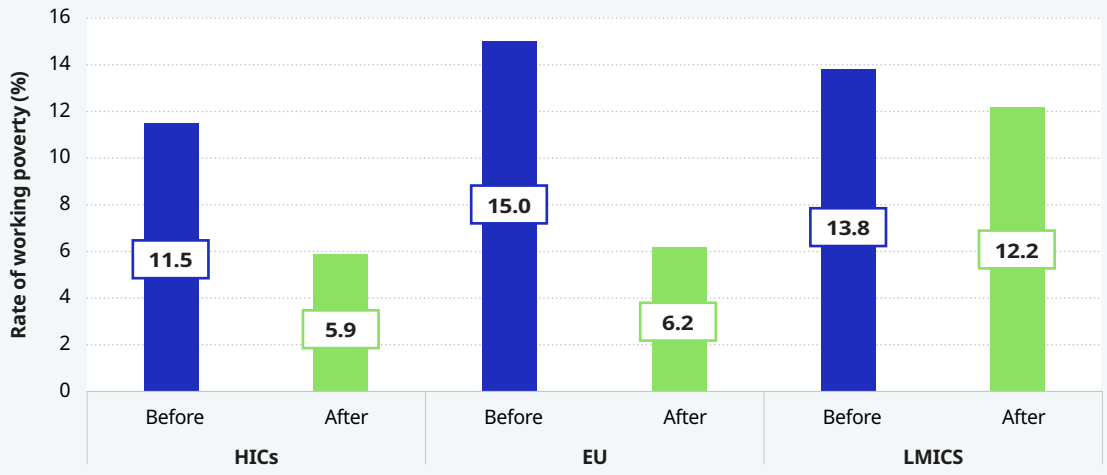
Based on a counterfactual wage distribution of migrant workers, the report shows that the migrant pay gap would generally stay narrow if migrant workers were equally remunerated as nationals for their labour market characteristics. Once labour market characteristics are taken into account and any remaining unexplained pay gap is eliminated, among the sample of HICs, the migrant pay gap would nearly disappear in countries like Argentina, Belgium, Denmark, Finland, Italy, and Sweden; and would reverse in favour of migrant workers in Chile, Cyprus, France, Greece, Hungary, Ireland, Latvia, the Netherlands, and Spain. It would decline substantially but remain positive in Austria, Canada, Luxembourg, Portugal, Slovenia, Switzerland, and the United States. On average, the migrant pay gap across the sample of HICs would decline substantially from approximately 12.6 per cent to about 0.2 per cent if wages were set according to observed labour market characteristics. In the EU, the migrant pay gap would reverse from about 8.6 per cent to about –7.9 per cent, on average (figure E-4). Among the sample of LMICs, the migrant pay gap would remain negative in some countries, while it would be positive in others.

Additionally, measures to eliminate the unexplained part of the migrant pay gap can help to reduce overall wage inequalities across countries. The report estimates that the Gini inequality coefficient – which expresses the level of wage inequalities within the economy – would reduce from about 31.2 per cent to approximately 28.0 per cent on average in the sample of HICs, from about 30.2 per cent to 29.6 per cent in the EU, and from about 39.3 per cent to 35.3 per cent in the sample of LMICs (figure E-4).

▶ **Figure E-4: The migrant pay gap and overall wage inequalities before and after eliminating the unexplained part of the migrant pay gap**



▶ **Figure E-5: Working poverty among migrant workers before and after eliminating the unexplained part of the migrant pay gap**



Thus, in countries where the unexplained part of the migrant pay gap is significantly high, eliminating this gap would help enhance skills and jobs matching for men and women migrant workers, and promote equality as well as economic productivity and development across countries.

Measures to eliminate the unexplained part of the migrant pay gap can help reduce working poverty among migrant workers

Given the significant size of the unexplained part of the migrant pay gap, measures that eliminate this part of the gap would help to reduce the rate of working poverty among migrant workers, especially among migrant women. By defining working poverty (low-paid workers) as "the proportion of workers earning less than half of the median hourly wage", eliminating the unexplained part of the migrant pay gap would reduce the proportion of low-paid migrant workers, by roughly 49 per cent in the sample of HICs (from about 11.5 per cent to 5.9 per cent), by about 59 per cent in the EU (from around 15.0 per cent to 6.2 per cent), and about 12 per cent in the sample of LMICs (from about 13.8 per cent to 12.2 per cent) (figure E-5).

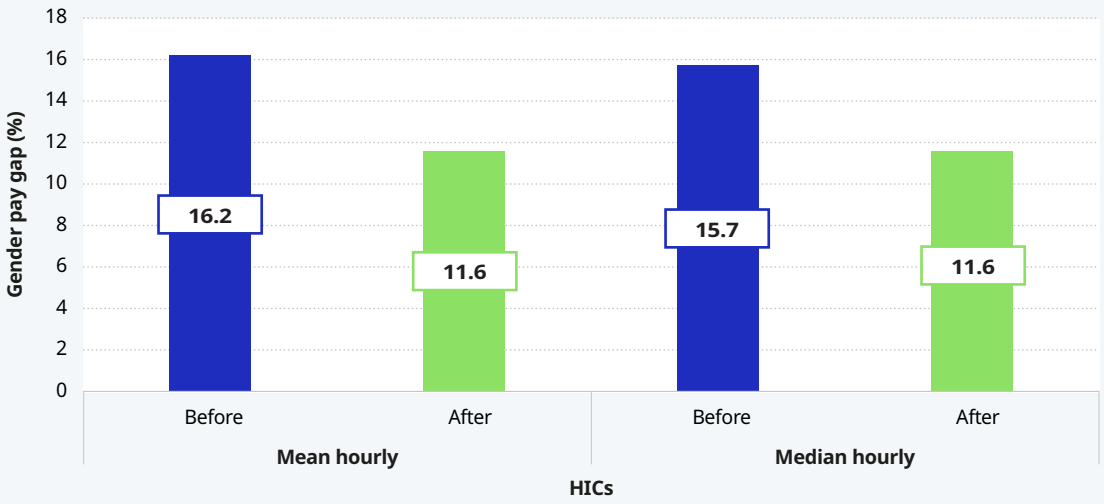
Measures to eliminate the unexplained part of the migrant pay gap can help reduce the aggregate gender pay gap in the economy

In addition to reducing the migrant pay gap, wage inequalities, and working poverty among migrant workers, the report finds that measures that eliminate the unexplained part of the migrant pay gap can help to reduce the aggregate gender pay gap between all men and all women in the economy, particularly in HICs. The report estimates that the aggregate gender pay gap in favour of men across the sample of HICs would decline from around 16.2 per cent to approximately 11.6 per cent when using mean hourly wages, and from about 15.7 per cent to 11.6 per cent when using median hourly wages (figure E-6).

Other salient differences in labour market characteristics of migrant workers and nationals

Similarly to the ILO Global Estimates on International Migrant Workers (2018b), this report

▶ Figure E-6: The aggregate gender pay gap before and after eliminating the unexplained part of the migrant pay gap



finds that migrants of working age in the sample of HICs tend to have higher labour force participation than non-migrants, on average (72.1 per cent and 69.0 per cent, respectively), with notable variations across countries. Among the sample of LMICs, however, migrants of working age tend to have lower labour force participation than non-migrants, on average (62.0 per cent and 64.6 per cent, respectively). In terms of distribution by sex, migrant men tend to have higher labour force participation rates than their non-migrant counterparts, on average, in the sample of HICs (83.1 per cent and 74.1 per cent, respectively), but have lower participation rates than their non-migrant counterparts in the sample of LMICs (78.6 per cent and 81.7 per cent, respectively), with variations across countries. Among women, migrant women tend to have lower labour force participation rates than non-migrant women, on average, in both the samples of HICs (61.3 per cent and 64.0 per cent, respectively) and LMICs (45.9 per cent and 48.4 per cent, respectively).

The report finds that more active migrant participants (in the labour market), especially women migrants, in 14 of the studied countries – where data on informality is available – tend to be informally employed compared to the non-migrant workforce. Notably, about 63.2 per cent of the non-migrant workforce in the 14 studied countries are employed in the informal economy, compared to about 66.5 per cent of migrant workers. The gap among wage workers is even wider, with about 50.8 per cent of non-migrant wage workers employed in the informal economy compared to 62.4 per cent of migrant wage workers. In terms of distribution by sex, informal employment is higher among migrant women than among migrant men, on average (66.4 per cent and 65.7 per cent, respectively). Likewise, informality is higher among women nationals than among their men counterparts (67.1 per cent and 60.9 per cent, respectively).[11] It is significant, however, to add that the estimates cover only two HICs (Argentina and Chile) and 12 LMICs. These countries host roughly only 5.3 per cent of international migrants and about 3.0 per cent of migrant workers worldwide.

By looking at the distribution of wage workers by industrial sector, the report finds that, on average, migrant wage workers, compared to nationals, are disproportionately represented in the primary sector – agriculture, fishing and forestry – in the sample of HICs (2.5 per cent and 1.5 per cent, respectively), while in the sample of LMICs, the proportions of both groups are similar (10.6 per cent and 10.3 per cent, respectively). In the sample of HICs, more migrant

11 The estimates are weighted to account for each country's population size. Based on simple averages, about 70.3 per cent of the non-migrant workforce in the 14 studied countries have informal employment compared to about 70.4 per cent of migrant workers. In terms of sex, about 74.8 of migrant women active in the labour market engage in the informal economy compared to 66.4 per cent of migrant men.

Cape Town, South Africa – August 2020: African business woman start her own small business, informal trading during the COVID-19 pandemic. © shutterstock.com

wage workers than nationals take up secondary sector jobs – mining and quarry; manufacturing; electricity, gas and water; and construction – (26.8 per cent and 20.8 per cent, respectively), while in the sample of LMICs, they (migrant wage workers) tend to take up fewer secondary sector jobs, on average, than nationals (24.9 per cent and 32.6 per cent, respectively). However, while there is a tendency for fewer migrant workers to be employed in the tertiary sector (i.e services) than nationals in HICs (70.7 per cent and 77.7 per cent, respectively), they tend to take up more tertiary sector jobs than nationals in the sample of LMICs, on average (64.6 per cent and 57.1 per cent, respectively), with few exceptions, including in Costa Rica, the Gambia, Jordan, Namibia, Nepal, and Turkey. In terms of distribution by gender, migrant men wage workers tend to work more than their national counterparts in the primary and secondary sectors in the sample of HICs and the tertiary sector in the sample of LMICs Similarly, migrant women wage workers tend to work more than their national counterparts in the primary and secondary sectors in the sample of HICs and the primary and tertiary sectors in the sample of LMICs.

Similar to findings from previous ILO research, the report shows that migrant workers in both the samples of HICs and LMICs are, on average, more likely than nationals to work under temporary contracts (27.0 per cent and 14.9 per cent, respectively in the sample of HICs, and 42.9 per cent and 41.7 per cent, respectively in the sample of LMICs), with few exceptions including Australia, Canada, Chile, Hungary, Ireland, and Latvia (among the sample of HICs); and Bangladesh, Malawi, and Mexico (among the sample of LMICs), and variations across countries. This corroborates the findings of earlier ILO research[12] according to which migrant workers are particularly prone to be employed in non-standards jobs. Entry through temporary migration programmes or individual characteristics are often one of the reasons. In addition, migrant workers tend to be overrepresented in sectors with traditionally high incidence of non-standard jobs. As a consequence, migrant workers may also be more likely to suffer from the disadvantages inherent to non-standards forms of employment, a fact that has become more evident during the COVID-19 pandemic across the world.

12 See: ILO. 2016. *Non-standard employment around the world: Understanding challenges, shaping prospects* (Geneva, ILO).

The report also finds that incidence of part-time work is slightly higher among migrant workers than non-migrant workers in HICs but lower than non-migrant workers in LMICs, on average. Migrant workers have slightly higher part-time incidence rates than non-migrant workers in the sample of HICs, on average (15.0 per cent and 14.6 per cent, respectively), primarily due to the significantly higher incidence of part-time work contracts among migrant women compared to non-migrant women. While part-time incidence rates of migrant men is slightly lower than that of non-migrant men in the sample of HICs (7.7 per cent and 8.3 per cent, respectively), an average gap of 2.2 percentage points exists between the part-time rates of migrant women and non-migrant women in HICs (23.8 per cent and 21.6 per cent, respectively), although the scale of the difference varies widely across countries.

In the sample of LMICs, incidence of part-time work tends to be lower among migrant workers than among non-migrant workers, on average (6.2 per cent and 8.7 per cent, respectively), with notable variations across countries. Both migrant men and migrant women in LMICs tend to have lower part-time incidence rates than their national counterparts, on average (3.9 per cent and 6.5 per cent of migrant men and non-migrant men, respectively, and 10.3 per cent and 12.0 per cent of migrant women and non-migrant women, respectively), although part-time work is more prevalent among women than among men in general.

What are the policy implications?

A major question emerging from the analysis in this report is, what can be done to progressively reduce migrant pay gaps observed across countries, in particular in HICs and in some LMICs, including through the effective application of the principle of "equal pay for work of equal value". While there is a range of measures that can be taken to reduce these pay gaps, the answer to this question will necessarily be country specific. This is because the factors that drive and explain migrant pay gaps vary from country to country as well as in different parts of the wage distribution. They may also vary across different migration corridors, where bilateral labour agreements are negotiated for different wages for a segment of the migrant population depending on the migrants' countries of origin.The following are some important policy implications emerging from the findings of this report:

- **Monitoring the impact of the ongoing COVID-19 crisis on migrant workers is important in addressing their specific vulnerabilities**

  While estimates presented in this report reflect periods prior to the COVID-19 crisis, the findings bear enhanced relevance in the face of COVID-19. The ongoing worldwide COVID-19 crisis has put a spotlight on decent work deficits among men and women migrant workers around the world. Experiences from previous economic crises suggest that the economic downturn associated with the COVID-19 pandemic may have disproportionate and long-lasting negative effects on the integration of migrants in their countries of destination.[13] Recent survey data from Mexico and the United States that covers up to the third quarter of 2020 shows that migrant workers have been among the hardest hit by the COVID-19 crisis, both in terms of employment losses and a decline in earnings for those who have remained in employment. In view of these recent changes, the migrant pay gap estimates presented in this report are likely to widen during and after the crisis.[14] Analysis of the social and economic outcomes of men and women migrant workers therefore remain most relevant in the immediate and long-term response to the COVID-19 crisis. As countries safeguard their economies during and beyond the pandemic, there is a need to monitor and protect the rights of migrant workers. This should include covering them in national COVID-19 policy responses, such as ensuring that migrant workers are covered by measures relating to wage subsidies, and facilitating their access to social security, including health care and income protection measures.

- **Reliable data, including data on wages of migrant workers and nationals, is needed on other regions and countries of destination**

  Quality of data is key, notably availability of reliable data on the distribution of wages amongst

13 See OECD, 2020a. *Managing international migration under COVID-19*, OECD Publishing, Paris.

14 For example, Fasani and Mazza (2020b) shows that migrant workers in the EU are more likely to be in temporary employment, earn lower wages and have jobs that are less amenable to teleworking during the COVID-19 crisis compared to non-migrant workers (see, https://ec.europa.eu/jrc/en/publication/vulnerable-workforce-migrant-workers-covid-19-pandemic). The OECD's International Migration Outlook 2020 finds that the COVID-19 crisis is reverting the trend of progress and jeopardising more than a decade of progress in migrant labour market inclusion in OECD countries (see, https://doi.org/10.1787/ec98f531-en).

Guatemala agricultural migrant workers heading to Canada. © Copyright ILO

migrant workers and nationals, in particular for other regions and countries of destination not covered in this report. This would help bridge the existing data gap, for example, with regard to data on migration to Asia and the Arab States (in particular the Gulf Cooperation Council (GCC) countries) and within North Africa, and South-East Asia and the Pacific.

Consideration could be given to reviewing and modifying existing surveys across these countries by introducing modules specifically related to migrant pay gaps into cross-sectional surveys. What the report recommends here is that these integrated modules should capture the labour market outcomes of both migrant workers and nationals, including information on wages and working conditions.

The ILO is currently working towards filling a part of this gap by implementing the Guidelines Concerning Statistics on International Labour Migration (see ILO, 2018c), in particular focusing on appropriate methodologies for capturing and collecting data on the main categories and sub-categories of international migrant workers. This is part of the ILO effort to improve the collection and production of labour migration statistics at national, regional and global levels, as well as the development of international concepts and standards on labour migration statistics agreed worldwide.

▶ **There is a need to go beyond simple summary measures of the migrant pay gap**

It is important to go beyond simple summary measures of the migrant pay gap (such as the average (the mean) or median migrant pay gap) in order to understand the underpinning causes and thus identify the most effective policy measures to reduce the gaps. This can be done by examining in more detail the respective wage structures of migrant workers and nationals, including their gender dimensions. In particular, it is essential to analyse the migrant pay gap at different locations in the wage distribution (including decomposing the gap into explained and unexplained parts) as well as in different sectors of the economy, and to calculate factor-weighted migrant pay gaps, which account for composition effects in estimating the pay gaps.

Computing migrant pay gaps at different points in the wage distribution as well as in different sectors

of the economy has important policy implications. For example, a well-designed minimum wage with broad legal coverage – including those sectors and occupations in which migrants are chiefly employed - could reduce the migrant pay gap at the lower end of the wage distribution. To maximize the effect of minimum wages, setting lower wage levels for sectors in which migrant workers often predominate such as domestic work or agriculture should be avoided. Collective agreements that include provisions on equal pay and pay transparency could have a similar effect in the middle and upper ends of the wage distribution. Finally, policies and measures that promote training and equal opportunity for upward mobility for migrant workers in the labour market, especially for those with long-term residence, could have a positive effect on wage levels in senior positions. Likewise, eliminating discrimination and addressing occupational segregation of migrant workers in lower paid occupations and sectors may also help reduce the migrant pay gap.

Measures that promote the formalization of the informal economy – such as extending to all workers, including migrant women, the right to a minimum wage and social security – can also greatly benefit migrant workers, especially women, bringing them under the umbrella of legal and effective protection and empowering them to better defend their interests.

- **Tackling the "explained" and "unexplained" parts of the migrant pay gap, including through education, changing stereotypes, and combating employer prejudice in hiring and promotion decisions**

A significant share of migrant workers in paid employment in many countries, in particular HICs, have higher levels of education and skills relative to non-migrant workers but receive lower returns to these endowments. According to ILO research these high levels of over-education and skills mismatch among migrant workers is consistent with the fact that immigrants have difficulties transferring their skills and experience across countries, in large part due to lack of adequate skills recognition systems for qualifications of migrant workers. It also highlights the vulnerable position these migrant workers have in labour markets.[15] Discriminatory practices may also prevent migrant job seekers from obtaining employment in accordance with their education and skills. Skills mismatch translates into migrant workers being concentrated in lower-paid occupations, contributing to the observed migrant pay gaps.

Educational or retraining programmes targeting men and women migrant workers who are more likely to be affected by skills mismatch, particularly in countries where migrant workers earn significantly less than non-migrant workers, could help to reduce the migrant pay gap. Reducing polarization and occupational segregation may require changing social and cultural perceptions and stereotypes contributing to discrimination against migrants; creating opportunities for men and women migrant workers to enter into a wider range of occupations, including managerial and professional occupations, which offer better paid employment opportunities; and combating employer prejudice in hiring and promotion decisions. More generally, labour market integration measures can help reduce skills mismatch in terms of access to jobs or recognition of foreign qualifications. These measures can also help counter discriminatory practices, including with respect to pay, against migrant workers and promote the principle of equal pay for work of equal value, which would in turn help narrow the unexplained part of the migrant pay gap and reduce working poverty among migrant workers, especially among women.

In any event, reducing the migrant pay will require a broader strategy that includes also the adoption of fair and effective labour migration policies that address decent work deficits and ensure greater coherence across employment, education and training, and other relevant policies at national, regional and global levels.

15 Sparreboom, T.; Tarvid, A. 2017. *Skills mismatch of natives and immigrants in Europe* (Geneva, ILO).

Chapter 1

Background

1.1. Introduction

International migration today is linked, directly or indirectly, to the world of work and the quest for decent work opportunities. Even if employment may not be the primary driver for the initial movement, it usually features in the migration decision process at some point. Family members joining migrant workers abroad may also take up work, either as employees or self-employed (ILO, OECD and World Bank, 2015).

According to United Nations (UN) estimates[16], the share of international migrants in the total world population was 2.8 per cent in 2000 and reached 3.5 per cent by 2019. The share of international men migrants in the total male population across the world was 3.6 per cent and that of women migrants was 3.4 per cent in 2019. In HICs, the corresponding share has risen from 9.3 per cent in 2000 to 14.0 per cent in 2019, with the share of men migrants in HICs estimated at 14.7 per cent in 2019 and that of women migrants standing at 13.2 per cent. Based on figures for 2017, the ILO estimates that there are 234 million international migrants of working age worldwide, of whom about 164 million are workers; about 42 per cent of these workers are women (ILO, 2018b).

Owing to diverging demographics across countries, among other reasons, international labour migration often creates a triple-win opportunity for countries of origin and destination, their nationals, and migrant workers and their families, at least in the short run. The win for countries of origin is due to stabilized employment and remittances as well as new skill sets from returnees. The win for countries of destination stems from the fact that migrant workers are able to support a level of economic activity that may otherwise be unattainable. This is particularly true in view of today's aging population in many high-income countries (HICs), a trend that is expected to grow in importance over time[17].

In many countries, men and women migrant workers represent a significant share of the workforce making important contributions to societies and economies, and serving on the front lines carrying out essential jobs in health care and social work, transport, services, construction, and agriculture and agro-food processing (OECD and ILO, 2018)[18]. In spite of this, migrant workers often face disadvantage and unequal treatment in labour markets around the world including wage discrimination and high recruitment fees and related costs (see, e.g., ILO, 2016a, 2019a; ILO, 2020a, forthcoming).[19] Furthermore, most migrant workers are concentrated in sectors of the economy with high levels of temporary, informal or unprotected work, characterized by low wages and lack of social protection, including in care work which in many countries is largely carried out by women migrant workers (ILO, 2018d). One way to measure labour market differences between migrant workers and nationals is by comparing the earnings of migrant workers to that of non-migrant workers with similar labour market characteristics. This report is concerned with such a comparison.

The general principle of equal remuneration for work of equal value is set out in the Preamble of the ILO Constitution,[20] and is further embodied in ILO Conventions, including the fundamental ILO Conventions on equality and non-discrimination.[21] The dedicated ILO Conventions concerning migrant workers also require ratifying States to ensure equal treatment between migrant workers and

16 United Nations, Department of Economic and Social Affairs. Population Division (2019). International Migrant Stock 2019 (United Nations database, POP/DB/MIG/Stock/Rev.2019), available at: https://www.un.org/en/development/desa/population/migration/data/estimates2/estimates19.asp.

17 See information on the World Health Organization website on Global Health and Aging, available at: https://www.who.int/ageing/publications/global_health.pdf.

18 For example, using the most recent wave of the European Union (EU) Labour Force Survey, Fasani and Mazza (2020a) quantify the prevalence of migrant workers in key professions that the European Commission and Member States have identified and show that migrant "key workers" are essential for critical functions in European societies. They also highlight the contribution of migrant workers to the ongoing effort to keep basic services running in the European Union during the COVID-19 epidemic.

19 Recruitment fees and related costs are those which are incurred by workers in the recruitment process in order to secure employment or placement, regardless of the manner, timing, or location of their imposition or collection (ILO, 2019a).

20 ILO: Constitution of the International Labour Organisation (Geneva, 1919), available at: http://www.ilo.ch/dyn/normlex/en/f?p=1000:62:0::NO:62:P62_LIST_ENTRIE_ID:2453907:NO.

21 Discrimination (Employment and Occupation) Convention, 1958 (No. 111), and the Discrimination (Employment and Occupation) Recommendation, 1958 (No. 111), para 2(f). The Equal Remuneration Convention, 1951 (No. 100) aims to promote the principle of equal remuneration between men and women workers, and covers all workers, including migrant workers.

nationals with respect to remuneration. The principle is embodied in the Migration for Employment Convention (Revised), 1949 (No. 97) and the Migrant Workers (Supplementary Provisions) Convention, 1975 (No. 143),[22] as well as Migrant Workers Recommendation, 1975 (No. 151) which explicitly refers, in its Paragraph 2(e) to equality of treatment with respect to remuneration for work of equal value. The United Nations Sustainable Development Goal (SDG) 8 *Decent work and economic growth*, targets 8.5 and 8.8, set out to achieve by 2030, "equal pay for work of equal value" and "protected labour rights for all workers, including migrant workers, in particular women migrant workers, and those in precarious employment" (UN, 2017a).

While in most countries, national legislation recognizes the principles of non-discrimination and equality of treatment, challenges continue to exist in ensuring these rights for migrant workers, in particular with respect to pay. Regardless of existing legislative provisions prohibiting all forms of discrimination including with regard to remuneration, unfair labour market differences exist between migrant workers and nationals around the world. The ILO supervisory bodies have noted situations in which migrant workers face less favourable treatment compared to nationals including with respect to remuneration, either due to non-inclusion of migrant workers in minimum wage legislation, or due to significant unlawful differences between migrant workers and nationals, in law or in practice.[23] These differences are likely to widen during and beyond the COVID-19 crisis, where men and women migrant workers are among the hardest hit. Recent reports document rising levels of COVID-19 related discrimination and xenophobia against migrant workers and in some cases food insecurity, layoffs, worsening working conditions including reduction or non-payment of wages, cramped or inadequate living conditions, and increased restrictions on movements or forced returns (see, e.g., Fasani and Mazza, 2020b; Hubbard, 2020; ILO, 2020b, 2020c; OECD, 2020b; Pilling and England, 2020). Migrant workers are often the first to be laid-off, and often excluded from national COVID-19 policy responses, such as wage subsidies, unemployment benefits or social security and social protection measures (ILO, 2020d). In view of these recent changes, the impact of COVID-19 on employment opportunities and income losses may be greater for migrant workers – especially women, who are often over-represented in the informal economy and more likely to work as personal care and domestic workers (ILO, 2018d) – than for non-migrant workers.

Previous ILO research, including the ILO Global Wage Report 2014/15, already highlighted the existence of significant wage differences between migrant workers and non-migrant workers in some countries. While at the national level, there have been attempts to analyse wage differences between migrant workers and nationals in several countries (some of which are documented in section 1.2 of this report), overall, global analysis of the migrant pay gap, including its gender dimensions, has however been limited. Nonetheless, the migrant pay gap continues to be of serious concern. Knowing its nature and extent is essential not only for improving the protection of migrant workers' rights and avoiding social dumping but also, for avoiding unfair competition and labour market distortions. Addressing the migrant pay gap, including by affording migrant workers equality of treatment, will contribute to well-functioning labour markets, which will be particularly important as countries seek to emerge and build back after the COVID-19 crisis. The present report therefore aims to provide a first detailed and up-to-date analysis of the migrant pay gap worldwide, including its gender dimension, using recent available data from 49 countries and covering nearly half (49.4 per cent) of all international migrants and roughly 33.8 per cent of migrant workers worldwide.

The report draws from the methodology used in the ILO Global Wage Report 2018/19, which provides a detailed analysis of pay inequalities between men

22 Article 6(1)(a) of Convention No. 97 requires ILO member States to ensure that no less favourable treatment, without discrimination based on nationality, race, sex or religion, is applied to migrant workers lawfully in the country than that which is applied to nationals with regard to remuneration; The Migrant Workers (Supplementary Provisions) Convention, 1975 (No. 143) requires equality of treatment for migrant workers whose legal status cannot be regularized, with respect to rights arising out of past employment in respect of remuneration, social security and related benefits; Article 10 requires the adoption and implementation of a national equality policy for migrant workers lawfully in the country, while Article 12(g) provides for equality of treatment for these migrant workers with respect to conditions of work. In addition, the principle is referred to in the Domestic Workers Convention, 2011 (No. 189), Article 11, and the Domestic Workers Recommendation, 2011 (No. 201), Paragraph 14.

23 For example, in Hong Kong (China): Committee of Experts on the Application of Conventions and Recommendations (CEACR), Convention No. 97, observation 2014 and direct request 2020; and in Malaysia (Sabah): CEACR, Convention No. 97, observations, 2019; Saudi Arabia – CEACR, Convention No. 29, Observations 2016 and 2020; Argentina – CEACR, Convention No. 189, direct request, 2020;. See also: ILO. 2016. *Promoting Fair Migration: General Survey concerning the migrant workers instruments*. Report of the Committee of Experts on the Application of Conventions and Recommendations, Report III (Part 1B), International Labour Conference, 105th Session, 2016, paras 367–384 (ILO, 2016d).

▶ Box 1. Relevant concepts and definitions

The following concepts and definitions have been used for the purpose of this report.

Migrant: In accordance with ILO's guidelines concerning statistics of international labour migration which were adopted by the International Conference of Labour Statisticians in 2018 (ILO, 2018c), the term "international migrant" refers to a person of working age present in a country of measurement who is not a citizen of that country. The datasets from which estimates in this report are drawn, and which have been produced by national statistical agencies (see Appendix II for details on data sources) allow the determination of whether individuals are citizens or migrants in the country of measurement. The report focuses on those who have migrant status in the latest year for which data is available. Thus, individuals who migrate and later take up the nationality of their countries of destination (referred to as "foreign-born" citizens) are treated as nationals in this report. International migrant workers include all non-citizens who have labour market attachment (i.e. either employed or unemployed).

By law, "foreign-born" citizens of a country should have similar treatment in the labour market as native-born citizens. Hence the focus of this report is on non-citizens of that country. It is acknowledged however that the use of country of birth is equally common in empirical analysis (and in accordance with international statistical standards) and that the UN-DESA numbers of migrants are generally produced on the basis of country of birth. In view of the definition of migrants, together with the focus on the working age population (rather than the total population), and the fact that the data sources for the report have been selected on the basis of availability of information on labour market outcomes including wages, the estimates of the size of the migrant population, and other estimates, may be different relative to estimates from other sources such as the UN-DESA. The data used in the report are derived from nationally representative labour force surveys whose sampling designs are not focused on migrants (by birth or by citizenship) but rather on geographical stratification and/or clustering. Subject to these limitations, our expectation is that the estimates provided in this report should provide at least a reasonable approximation of labour market gaps between nationals and migrant workers across the studied countries.

National/non-migrant: Throughout the report, the term "national" or "non-migrant" refers to an individual who currently lives and/or works in his or her country of citizenship, regardless of whether the individual is native-born or a foreign-born citizen.

Wage employees/workers: According to the International Classification of Status in Employment (ICSE-93), "employees" are workers who hold "paid employment jobs", that is, jobs in which the basic remuneration is not directly dependent on the revenue of the employer. Employees include regular employees, workers in short-term employment, casual workers, outworkers, seasonal workers and other categories of workers holding paid employment jobs (ILO, 1993 and 2008).

Care workforce: The care workforce is defined, where possible, to include care workers in care sectors (education, health and social work), care workers in other sectors, personal care and domestic workers, and non-care workers in care sectors, who support care service provision.

Pay: Due to limitations in identifying basic pay or hourly wage in survey data, throughout the report the term "pay" refers to wages or earnings received by wage employees including basic pay and additional allowances. This is different from income received from other modalities of labour market participation, for example, self-employment. In this sense, the terms "migrant pay gap" and "migrant wage gap" are used interchangeably, irrespective of whether pay refers to hourly wages, monthly earnings, or any other way of describing earnings arising from wage employment. In order to minimize the impact of outliers on the estimates produced in the report (for example, the impact of the wages of legislators, senior officials and CEOs), the top percentile of wage earners in each country is excluded from the analysis.

Gini coefficient: The Gini index or Gini coefficient is a statistical measure of distribution developed by Corrado Gini in 1912. It is often used as a gauge of economic inequality, measuring income distribution among a population. The coefficient ranges from zero to 1 (or 100 per cent), with zero representing perfect equality and 1 (or 100 per cent) representing perfect inequality. Thus, a country in which every resident has the same income would have an income Gini coefficient of zero per cent. A country in which one resident earned all the income, while everyone else earned nothing, would have an income Gini coefficient of 1 or 100 per cent. The Gini index, however, should not be taken

as an absolute measure of income as high-income and low-income countries can have the same Gini coefficient if incomes are distributed similarly within each country. In this report, the Gini coefficient is computed based on hourly wages.

High-income countries (HICs): The World Bank defines a high-income country as one that has a gross national income (GNI) per capita exceeding US$12,375 as of July 2019. By this national income per capita threshold, there are 80 economies classified by the World Bank as HICs as of July 2019. Of these, 33 representing about 41 per cent are covered in this report. Most of the 33 countries covered also double as "countries of destination" of international migrant workers.

Low- and middle-income countries (LMICs): According to the World Bank, low-income countries are nations that have a per capita gross national income (GNI) of less than US$1,026 as of July 2019. Middle-income countries, on the other hand, are nations that have a per capita gross national income (GNI) between US$1,026 to US$12,375. This category is further divided into two: lower-middle income economies (US$1,026 to US$3,995) and upper-middle income economies (US$3,996 TO US$12,375). Among the 138 economies within the low-income and middle-income group classifications, this report covers only 16, which are combined to be one group (LMICs). Most of the countries covered under the LMIC group double as "countries of origin" for a substantial number of international migrant workers in HICs. In view of the small sample size of this big group of countries, together with the fact that the proportion of wage employees are usually low in comparison to the overall active labour market participants in LMICs, the analysis of this income group category covers only a small part of the labour markets of LMICs.

and women around the world (ILO, 2018a).[24] The main objective of the report is to highlight labour market differences between migrant workers and nationals, including migrant pay gaps across countries. It does so with a view to facilitating the adoption and implementation of evidence-based labour migration policies around the world, and ensuring that these are gender-responsive. The report also contributes towards achieving SDG targets 8.5 and 8.8. In addition, the information contained in the report can help set the basis for monitoring wage inequalities between migrant workers and non-migrant workers around the world, help support the case for closing these gaps, and encourage further research on policies and practices that are effective for promoting change.

For the purpose of this report, the migrant pay gap – expressed in its simplest form – refers to the difference in average wages between all migrant workers and all non-migrant workers who are engaged in paid employment. The report focuses on migrants and non-migrants of working age, which is defined in this report as individuals of age 16-70 years across all the studied countries.[25] It is important to emphasize that the migrant pay gaps presented in this report are based on data that predate the COVID-19 crisis period. The impact of the pandemic may, however, lead to a widening of labour market differences between migrant workers and nationals, which may in turn deepen the migrant pay gaps presented in the report.

The report draws on a large volume of data. For this reason it has several sections and subsections and is organized as follows. Chapter 1 presents background information with an introduction and summary of related literature on migration and labour market outcomes. Box 1 summarizes some relevant concepts and definitions used throughout the report. Chapter 2 describes the data and provides summary statistics of labour market characteristics of migrant workers and nationals, including gender dimensions. Chapter 3 evaluates the migrant pay gap and decomposes the gap into explained and unexplained parts. Chapter 4 presents simulation results by analysing migrant pay gaps based on a counterfactual wage distribution for migrant workers. The fifth and final chapter presents conclusions and recommendations. The Appendices contain the methodology used in estimation the migrant pay gap, data sources, and supplementary statistical results from the analysis.

24 Appendix I explains the methodology used in estimating and decomposing the migrant pay gap.

25 Working age population is defined this way to make pay gap estimates comparable across countries. Nonetheless, we acknowledge the fact that variations exist in working ages across the countries covered in the report.

1.2. Related literature

The existing literature provides abundant research on the flow of migration (see, e.g., ILO, 2018b; IOM, 2018; UN-DESA, 2019; UN, 2017b). There also exist ample evidence on recruitment fees and related costs associated with the general migration process. Although certain worker-paid migration costs have fallen in recent times following technological and institutional changes,[26] recruitment fees and related costs remain considerably high, especially for low and semi-skilled workers[27]. The high economic and social costs incurred by migrant workers are increasingly recognized as serious impediments to realizing sustainable development outcomes from international migration (World Bank and ILO, 2019).

In addition to high recruitment fess and related costs, migrant workers report substantial decent work deficits and short-falls in working conditions such as those relating to contractual status, level of wages and periodicity of wage payments, hours worked, occupational safety and health, as well as trade union involvement and discrimination (Aleksynska, Kazi Aoul and Petrencu, 2017). The COVID-19 crisis has put a spotlight on the decent work deficits, including with respect to wages, in the care sector, including domestic work, with migrant workers often doubly disadvantaged. During the COVID-19 pandemic, men and women migrant workers, including domestic workers have reported worsening working conditions including layoffs and reduction or non-payment of wages (ILO, 2020b, 2020c, 2020f). They are often excluded from national COVID-19 policy responses, such as wage subsidies, unemployment benefits or social security and social protection measures (ILO, 2020d). Based on ILO's rapid assessment survey on experiences of migrant workers in ASEAN countries[28] during the pandemic, migrant workers face, among others, contract termination and reduced working days and pay, with the unemployed unable to access any social security support (ILO, 2020e). In the European Union (EU), migrant workers are more likely to be in temporary employment, earn lower wages and have jobs that are less amenable to teleworking during the COVID-19 crisis compared to non-migrant workers (Fasani and Mazza, 2020b). The OECD's International Migration Outlook 2020 finds that the COVID-19 crisis is reverting the trend of progress and jeopardising more than a decade of progress in migrant labour market inclusion in OECD countries (OECD, 2020b).

There are different types of migration, each requiring different types of policy interventions to address gaps in labour market outcomes (ILO, 2018c). Migration flows can be characterized by their drivers (forced versus economic migration), their duration (permanent versus temporary), their stance vis-à-vis the law (regular versus irregular), the basic characteristics of the migrants (age, gender, skills, among others), and the geography of the flows. These profiles determine how migration affects job opportunities, as well as the communities in countries of origin and destination.

Migrant characteristics are especially important in understanding the labour market differences between migrants and nationals. Migration of men (internally and internationally) still dominates, though gender patterns and norms are shifting (Christiaensen, Gonzalez and Robalino, 2019; ILO, 2018b). Women are not only migrating more than before, they are also migrating more for economic reasons (domestic and care work, in some cases), especially in Asia (Ingelaere et al., 2017; Lucas, 2015). Migration by low-skilled workers is more often temporary (e.g. seasonal agricultural or construction workers), while migration by high skilled workers is more likely to be permanent and further away (World Bank, 2018a). Possibly, that low-skilled workers also move further from their home countries, for example, as is the case for low-skilled migrants moving within the EU (Farole, Goga and Ionescu-Heroiu, 2018), and migration of low-skilled workers from Asia and Africa to the Middle East (ILO, 2017d). Unsurprisingly, the level of skills also

26 For example, studying real migration costs from India to the Cooperation Council for the Arab States of the Gulf (GCC), Seshan (2017) reports a 50 per cent decline in these costs on average between 1980 and 2014, driven by a reduction in visa fees and air ticket prices. This also seems to be due in part to the establishment of social migration networks. This has further been helped along by the ICT revolution, which has reduced communication costs and increased access to information.

27 For example, when using the SDG indicator 10.7.1: "Recruitment cost borne by an employee as a proportion of monthly income earned in country of destination". For further details on this, see ILO (2019c) and World Bank and ILO (2019). For additional information on recruitment fees and related costs, and estimates of migration costs in particular, see, for example, Abella and Martin (2014), ILO (2016a), ILO (2020a, forthcoming) and Martin (2016).

28 Brunei Darussalam, Cambodia, Indonesia, Lao People's Democratic Republic, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam.

affects the choice of destination. For example, high-skilled migration rates are particularly high among developing countries. In the year 2000, one out of every eight Africans with a university education lived in a country in the OECD, the highest rate among developing regions except the Caribbean, Central America, and Mexico (World Bank, 2011, 2018b). According to the United Nations Conference on Trade and Development (UNCTAD), migration of highly qualified professionals from the world's 48 least developed countries is quite stark, with about one in five university level educated professionals leaving for employment elsewhere (UNCTAD, 2012). These migration typologies should drive differences in policy objectives as the constraints facing different groups of migrants differ (Cho, 2017).

Clear geographical patterns of international migration emerge from the available data. Apart from the much-emphasized pattern of the Global South-North migration, there are three other important migration corridors: (i) from South Asia to the Gulf countries (ILO, 2015a); (ii) within and from Latin America to North America (ILO, 2017a); and (iii) between countries in Africa, especially in West Africa and southern Africa, with more than 80 per cent of migration flows of African nationals taking place within the continent and the remaining flow taking place in spatially diversified locations beyond colonial patterns (Flahaux and De Haas, 2016; ILO, 2019b).

In relation to migration for jobs in the care economy, the ILO's *Care Work and Care Jobs for Decent Work Report* (2018d) notes that health worker migration is a feature of global health labour markets, driven by working conditions and income differentials across countries. The report also highlights that most care workers are women, often migrants and working in the informal economy under poor conditions and for low pay (ibid.). Women migrant workers also represent a significant share of those in domestic work, comprising 73.4 per cent (or 8.45 million) of all migrant domestic workers (ILO, 2015c). In *The Social Construction of Migrant Care Work*, King-Dejardin (2019) finds that due to the asymmetries between countries of origin and destination and often inconsistent law and policy on migration and care, working conditions of migrant care workers tend to differ to a greater or lesser extent from those of their national counterparts. King-Dejardin (2019) also highlights the need for effective policies to help improve the governance of labour migration for health-care workers (and all migrant care workers, by extension), address decent work deficits for better recruitment and retention, and improve skills recognition and certification of migrant care workers.

Kahanec and Zimmermann (2008, 2011), using data from the early 2000s, document differences in labour market characteristics – such as labour force participation, unemployment, and occupational and educational attainments – of nationals and migrant workers in OECD countries. They argue that skilled labour migration has a large potential to reduce inequality in destination countries under standard conditions. More recently, ILO Global Estimates on International Migrant Workers (2018b) show that: (i) migrants worldwide tend to have higher labour force participation rate than non-migrants (primarily due to the significantly higher labour force participation rates of migrant women compared to non-migrant women); (ii) prime-age adults (ages 25-64) constitute about 87 per cent of international migrant workers; (iii) migrant workers are concentrated in HICs, with about 68 per cent of migrant workers worldwide employed in HICs; and (iv) migrant workers are geographically concentrated, with about 61 per cent of all migrant workers found in three subregions: Northern America; Northern, Southern and Western Europe; and the Arab States.

In terms of the migrant pay gap, previous ILO research including the *Global Wage Report 2014/15* (2014a) highlighted significant pay gaps between nationals and migrant workers in some countries in Europe and Latin America. Among European countries, for example, the Global Wage Report 2014/15 found that the migrant pay gap in 2010 was about 9.8 per cent in Belgium, 14.9 per cent in Luxembourg, and 34.8 per cent in Cyprus. In Latin America, the migrant pay gap in 2012 was 22 per cent in Argentina, –113.8 per cent in Brazil, and –10.8 per cent in Uruguay.

Apart from the ILO, other researchers have examined the migrant pay gap for individual countries. Borjas (1990 and 1995) uses the 1970, 1980, and 1990 United States census data to examine the mean migrant-national earnings gaps and projects that migrant workers in the United States will earn between 15 and 20 per cent less than nationals throughout much of their working lives. Similarly, using the census data, Butcher and DiNardo (2002) investigate the migrant pay gap in the United States at different deciles of the earnings distribution and find evidence, based partly on gender differences, that the minimum wage strongly widened the pay gap in 1990. This could reflect the possibility that a significant proportion of migrant workers in the United States is concentrated around the minimum

wage. Chiswick, Le and Miller (2008) also investigate determinants of the earnings distribution for native-born workers and migrant workers in Australia and the United States. They find significant earnings gaps with magnitudes and determinants varying by sex, year, and immigrant cohort, as well as across the deciles of the earnings distribution. They find a pattern of higher earnings for migrant workers than for nationals at the lowest earnings decile in Australia and posit that this may reflect favourable selectivity in migration for Australia.

In more recent years, Antón, de Bustillo and Carrera (2012), based on the Spanish Labour Force Survey 2006 (LFS 2006) and the Wage Structure Survey 2006 (WSS 2006), find that migrant women in Spain face double disadvantage of being women and migrants, in particular women from developing countries. The authors estimate that migrant women in Spain earn 20 per cent less than non-migrant women. Using 2010 data from the Netherlands, Siebers and van Gastel (2015) find that migrant workers'/ethnic minority employees' lower levels of participation in work-related communication and the application of socio-ideological labour control widens the migrant earnings gap in the Netherlands. In Germany, Ohlert, Beblo and Wolf (2016) find that non-German workers face significantly lower wages in establishments covered by collective bargaining agreements, with the average wage gap estimated at around 11.1 per cent (in favour of German nationals) based on a panel data for the period of 2000-2010. However, using the German Integrated Employment Biographies (IEB) covering a cross-section of individuals up to 2015, Brunow and Oskar (2019) report that the migrant wage gap in Germany is mostly explained by observable characteristics (endowments), especially location, labour market experience, and firm characteristics. In addition, the fourth Belgian *Socio-economic Monitoring Report 2019*[29] shows that labour market differences – including with respect to wages – between people of Belgian and foreign origin remain significant, even with the same level of qualification and field of study.

The migrant pay gap measured simply as the so-called "raw" or "unadjusted" pay gap can occur for many reasons, including the fact that migrant workers' personal characteristics, such as skills and education, may be advantageous or disadvantageous to them in their destination countries. Part of the migrant pay gap may also be unexplained. Employer discrimination against migrant workers due to factors such as prejudice or mistrust may account for part of the unexplained wage gap (ILO, 2014a; Solé and Parella, 2003). Other possible reasons include differences in returns to foreign-acquired skills and education of migrant workers, as employers may not fully recognize these (see, e.g., Barrett, McGuinness and O'Brien, 2012), possibly due to the fact that skills recognition systems are not prevalent and robust (see, e.g., Braňka, 2016; ILO, 2017c; Rosangela and Annavittoria, 2017).

Moreover, migrant workers, particularly singles, may receive lower wages if they are perceived as having lower income needs than their national counterparts with families to support (Rubery, 2003). In other cases, migrant workers may be under represented in collective representation structures because of difficulties in organizing or because nationals dominate the overall representation – this could be exacerbated if migrant workers are perceived as a low-wage employment threat to nationals (ibid.). The most appropriate mix of policy responses will differ across countries, depending on which factors have the largest impact on the pay gap in each national context.

29 See https://employment.belgium.be/en/publications/4th-socio-economic-monitoring-labour-market-and-origin-2019.

Chapter 2

Labour market characteristics of migrant workers and nationals

Chapter 2. Labour market characteristics of migrant workers and nationals

For a better understanding of the complexities of the migrant pay gap, it is important to first understand some key labour market characteristics that contribute to the economic success of migrant workers and can drive the migrant pay gap. This chapter therefore provides an empirical evaluation of differences in key labour market characteristics of migrants and nationals based on recent data from 49 countries covering about 25 per cent of the world's wage employees, nearly half (49.4 per cent) of all international migrants, and roughly 33.8 per cent of migrant workers worldwide.[30] Basic empirical facts at the country level are presented on the differences between migrant workers and nationals for personal characteristics, employment status, job characteristics, working conditions and workplace characteristics, with a particular focus on gender and informality.

2.1. Share of migrant population

Table 1 shows the proportion of migrants of working age (i.e. ages 16–70) among the total working age population as well as the total population of wage workers in the 49 studied countries. These two population shares vary significantly across the countries. Among the countries for which data is available, Luxembourg has the highest share of migrants in the total working age population and the total population of wage workers, with 43.1 per cent and 47.0 per cent, respectively. Jordan, Switzerland, Australia, and Canada host the second, third, fourth and fifth highest share of migrants. On average, the stock of migrants of working age is about 9.3 per cent in the sample of HICs and 1.1 per cent in the sample of LMICs. In terms of wage workers, the average share of migrant wage workers among the population of wage workers is about 9.2 per cent in the sample of HICs and 1.2 per cent in the sample of LMICs.

Figure 1 shows the respective shares of women and men in the working age population as well as in the population of wage workers, distinguishing between migrants and nationals. On average, across the sample of HICs and LMICs covered in the report, migrant women account for a slightly higher proportion of the total working age migrant population than migrant men, with the share of migrant women being 50.6 per cent in HICs and 51.3 per cent in LMICs, although there are notable variations across countries. Similarly, women nationals have a higher share of the total working age population of nationals than men nationals, with women nationals accounting for 50.8 per cent of the total working age population of nationals in HICs and 51.6 per cent in LMICs. However, the share of women (both migrants and nationals) among wage employees is low, on average, compared to men, which is consistent with findings in the *ILO Global Estimates Report on International Migrant Workers* (2018b). Only 43.0 per cent of migrant wage workers in the sample of HICs are women and 32.0 per cent in the sample of LMICs are women, with large variations across countries. Similarly, among non-migrants, about 47.9 per cent of wage workers in HICs are women and 34.2 per cent in LMICs are women.

2.2. Geographical coverage

It is important to understand how representative the findings in this report are in terms of worldwide coverage of international migrant workers. The majority of countries and territories do not have labour market data that includes wages of both international migrant workers and nationals. The reports' benchmark databases were drawn from 188 countries and territories (representing about 99.9 per cent of the world population in 2017), as used in the *ILO Global Estimates Report on International Migrant Workers* (2018b). Of the 188 countries in the benchmark databases, the report covers 49 countries where labour market data including data on wages of migrant workers exist. International migrants living in these 49 countries represent nearly half (49.4 per cent) of all international migrants[31]. Wage workers, includ-

30 Computation is based on ILO's own estimation based on its databases on global wage employees and international migration data from UN-DESA.

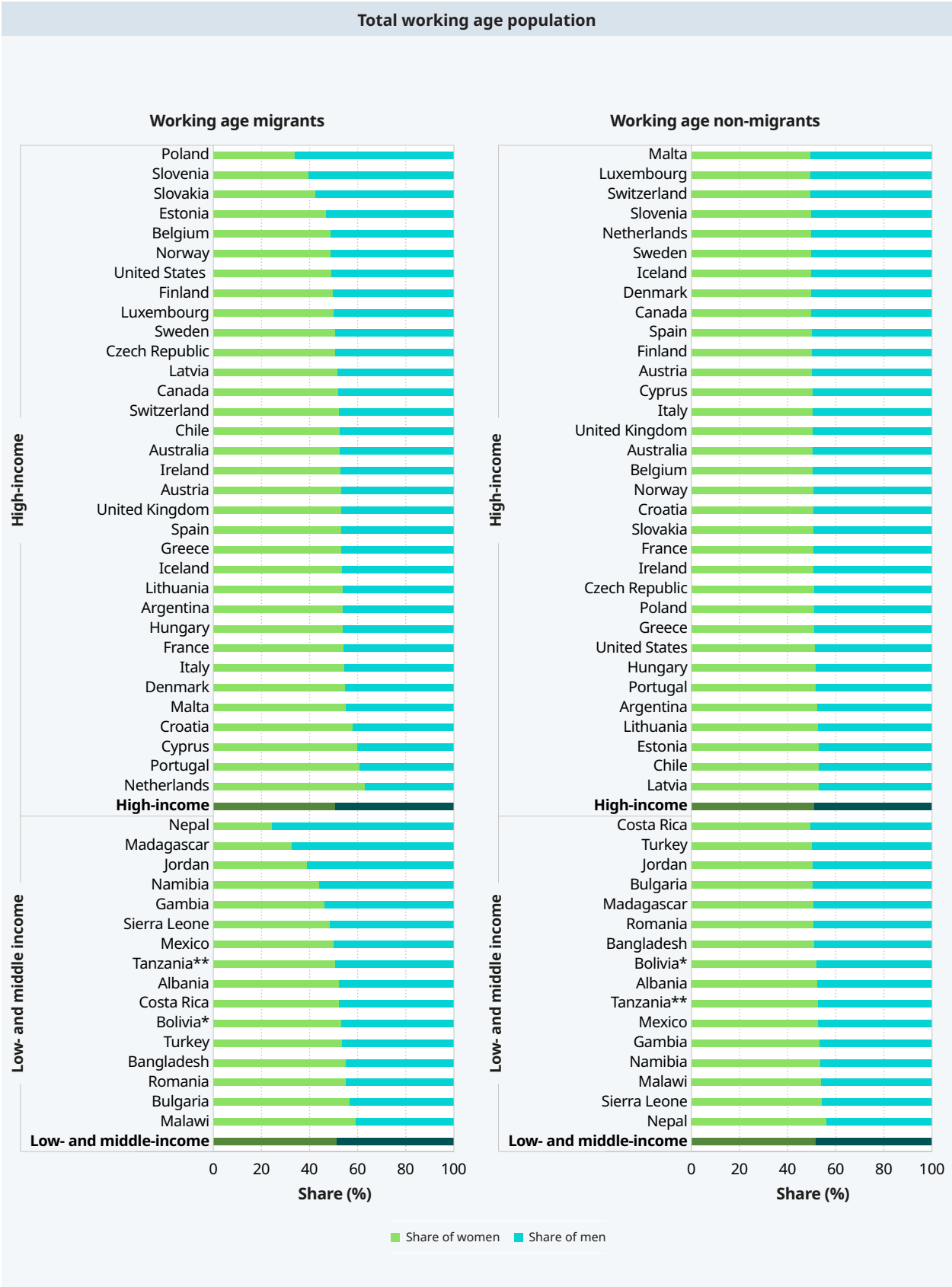
31 See previous footnote.

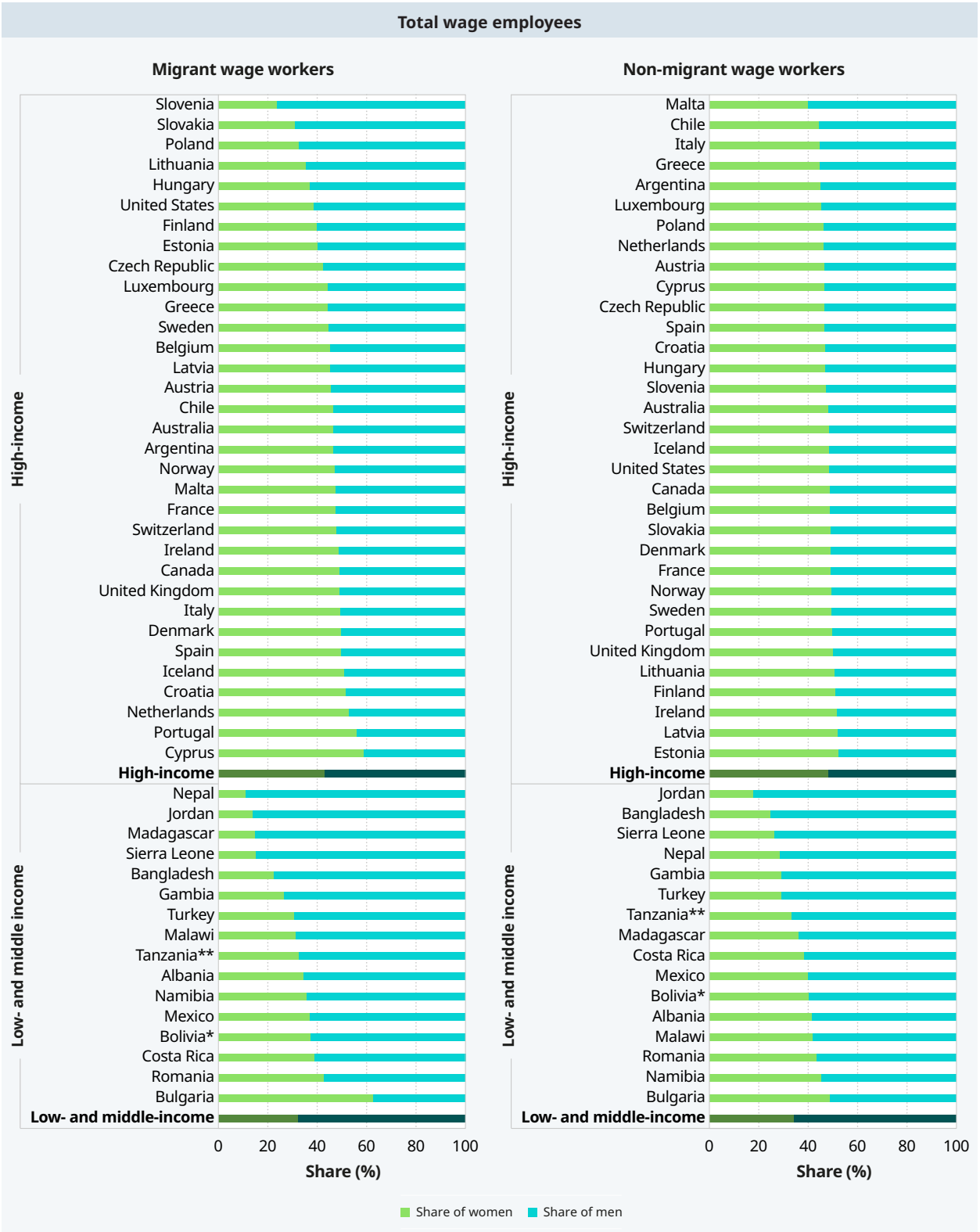
▶ Table 1. The share of migrant population among the total working age population, latest years

Country Code	Country	Latest year	Migrants' population (%)	Migrants' share of wage workers (%)
High-income				
POL	Poland	2015	0.15	0.21
SVK	Slovakia	2015	0.16	0.14
HUN	Hungary	2015	0.49	0.58
HRV	Croatia	2015	0.59	0.56
LTU	Lithuania	2015	0.59	0.53
CZE	Czech Republic	2015	1.64	1.29
PRT	Portugal	2015	2.14	2.19
FIN	Finland	2015	2.93	2.22
NLD	Netherlands	2015	2.96	2.64
MLT	Malta	2015	3.13	2.64
SVN	Slovenia	2015	3.61	4.40
NOR	Norway	2015	4.67	4.93
CHL	Chile	2017	4.71	6.71
DNK	Denmark	2015	4.86	4.43
FRA	France	2015	4.87	4.29
SWE	Sweden	2015	5.45	4.23
ISL	Iceland	2015	5.91	5.92
ARG	Argentina	2018	6.35	6.36
GRC	Greece	2015	6.46	8.84
ITA	Italy	2015	8.90	11.23
ESP	Spain	2015	8.94	9.01
USA	United States	2018	9.06	8.95
GBR	United Kingdom	2015	9.70	9.28
BEL	Belgium	2015	10.36	8.83
IRL	Ireland	2015	11.92	13.52
AUT	Austria	2015	14.44	12.90
LVA	Latvia	2015	14.67	13.72
EST	Estonia	2015	14.83	13.39
CYP	Cyprus	2015	16.58	19.53
CAN	Canada	2018	24.80	24.13
AUS	Australia	2017	27.35	26.37
CHE	Switzerland	2016	28.71	29.31
LUX	Luxembourg	2015	43.13	46.99
Weighted Average			**9.27**	**9.22**
Low- and middle-income				
ROU	Romania	2015	0.10	0.14
BGD	Bangladesh	2017	0.15	0.13
MDG	Madagascar	2012	0.20	0.31
BOL	Bolivia*	2017	0.31	0.31
NPL	Nepal	2017	0.39	0.77
MEX	Mexico	2018	0.51	0.47
BGR	Bulgaria	2015	0.60	0.39
SLE	Sierra Leone	2014	1.03	1.22
MWI	Malawi	2013	1.30	1.33
ALB	Albania	2013	1.96	1.57
TZA	Tanzania**	2014	2.22	4.66
TUR	Turkey	2017	2.80	3.10
NAM	Namibia	2016	4.39	5.43
GMB	Gambia	2018	5.74	5.90
CRI	Costa Rica	2018	10.80	12.82
JOR	Jordan	2016	33.89	44.34
Weighted Average			**1.07**	**1.22**

Note: Refer to Box 1 for definition of a migrant. * the Plurinational State of Bolivia; ** the United Republic of Tanzania.
Source: ILO estimates based on survey data provided by national sources (see Appendix II).

▶ Figure 1: The share of women and men among migrants and nationals, latest years





Note: Estimates are based on the working age population (i.e. adults with ages 16-70). The top panel shows the proportions of women and men among the entire working age population whereas the bottom panel shows the respective proportions among wage workers. High-income and low- and middle-income estimates are the averages of the sample of high-income countries and low- and middle-income countries, respectively. Averages are weighted by the number of wage employees in each country. * the Plurinational State of Bolivia; ** the United Republic of Tanzania.

Source: ILO estimates based on survey data provided by national sources (see Appendix II).

ing migrant wage workers from the 49 countries represent about a quarter of wage employees worldwide.

Tables 2 and 3 indicate that the sample of 49 countries covered in the report represent about 26 per cent of the total 188 countries and territories cited as benchmark data sources for the ILO global estimates.[32] Table 2 shows the coverage by income group. All countries with labour force data on international migrant workers and nationals had disaggregated data based on sex. While about 55.9 per cent of HICs are covered, only about 16.7 per cent and 4.0 per cent of upper middle-income and lower middle-income countries are covered, respectively. The coverage for low-income countries (19.4 per cent) is higher than both categories of middle-income economies.

Table 3 shows that by geographical region, North America and Northern, Southern, and Western Europe had the highest coverage (100 per cent and 80 per cent, respectively), followed by Eastern Europe (60 per cent) and South Asia (22.2 per cent). Broad subregions with no coverage included North Africa and East Asia. Subregions with the least coverage were South-East Asia and the Pacific (about 4.5 per cent), followed by Arab States and sub-Saharan Africa (8.3 per cent and 12.8 per cent, respectively).

Box 2 lists the sampled countries and notes any exceptions. Germany is excluded from the European Union (EU) countries as labour market data on its migrant workers were not available at the time of writing the report. The EU however includes the United Kingdom, as it was a Member country at the period under review.

Labour migration is an increasingly complex and dynamic phenomenon taking place within and between all regions of the world. In certain migration corridors, such as between Asia and the Arab States (particularly, GCC countries) and within South-East Asia and the Pacific, the number of international migrants, the large majority of whom are migrant workers, has tripled since 1990 (ILO, 2017b). Though the migration flows in these corridors are important, coverage in the report of countries of destination in these regions is low. This is mainly because existing labour force surveys of countries of destination in these regions

▶ Table 2. Coverage of countries by income group

Income group	Total countries*	Number of countries covered in the report	
		Total	%
Low-income	31	6	19.4
Lower middle-income	50	2	4.0
Upper middle-income	48	8	16.7
High-income	59	33	55.9
Total	**188**	**49**	**26.1**

Note: *These are countries and territories used for the ILO global estimation (ILO, 2018b).

▶ Table 3. Coverage of countries by broad subregion

Region	Broad subregion	Total countries*	Number of countries covered in the report	
			Total	%
Africa	North Africa	6	0	0.0
	Sub-Saharan Africa	47	6	12.8
Americas	Latin America and the Caribbean	31	5	16.1
	North America	2	2	100.0
Arab States	Arab States	12	1	8.3
Asia and the Pacific	East Asia	8	0	0.0
	South-East Asia and the Pacific	22	1	4.5
	South Asia	9	2	22.2
Europe and Central Asia	Northern, Southern and Western Europe	30	24	80.0
	Eastern Europe	10	6	60.0
	Central and Western Asia	11	2	18.2
	Total	**188**	**49**	**26.1**

Note: *These are countries and territories used for the ILO global estimation (ILO, 2018b).

32 See Appendix III for detailed lists of countries and territory groups, by ILO region and by World Bank income groups.

▶ Box 2. List of countries covered in the estimates

Low- and middle-income countries

Albania	Jordan	Romania
Bangladesh	Madagascar	Sierra Leone
Bolivia, Plurinational State of	Malawi	Tanzania, United Republic of
Bulgaria	Mexico	Turkey
Costa Rica	Namibia	
Gambia	Nepal	

High-income countries

Argentina	Finland	Netherlands
Australia	France	Norway
Austria	Greece	Poland
Belgium	Hungary	Portugal
Canada	Iceland	Slovakia
Chile	Ireland	Slovenia
Croatia	Italy	Spain
Cyprus	Latvia	Sweden
Czech Republic	Lithuania	Switzerland
Denmark	Luxembourg	United Kingdom
Estonia	Malta	United States

European Union*

Austria	France	Netherlands
Belgium	Greece	Poland
Bulgaria	Hungary	Portugal
Croatia	Ireland	Romania
Cyprus	Italy	Slovakia
Czech Republic	Latvia	Slovenia
Denmark	Lithuania	Spain
Estonia	Luxembourg	Sweden
Finland	Malta	United Kingdom

Note: * This comprises all Member States of the European Union (EU) in 2015 with the exception of Germany, which had no available data at the time of writing the report. Throughout the report, averages for the European Union are therefore computed using estimates for the 27 out of 28 member countries for which data was available. Non-EU migrants and EU migrants within the European Union are not distinguished in the report. EU nationals who relocate from their home EU country to another EU country are treated equally as migrants from outside the European Union.

do not sufficiently capture migrant households. For example, among the 22 countries in the South-East Asia and the Pacific region, labour force data that sufficiently capture migrant workers was available only for Australia; and among the 12 Arab States, Jordan was the only country with reliable data.

Though there have been wide-ranging efforts to produce reliable and comparable data on labour migration, the low proportion of international migrants covered in this report relative to the proportion covered in the ILO Global Estimates on International Migrant Workers (2018b) reinforces the fact that data gap remains significantly high, in

particular data on labour market outcomes including wages of migrant workers, as noted by the ILO supervisory bodies and the international community.[33] There is a need, therefore, to augment efforts to produce reliable data on labour migration that captures labour market outcomes of migrant workers, especially for the GCC countries, North Africa, Latin America and the Caribbean, East Asia, and South-East Asia and the Pacific.

2.3. Weak negative correlation between wage inequality and the size of migrants population

Empirically, it is possible to show the association between the presence of migrant workers and wage inequality in destination countries. On the one hand, migrants carry different amounts and forms of capital[34] with them and represent different types of labour, thereby directly affecting the distribution of income in destination countries. Migrant workers have an indirect impact through changing the productivity of incumbent production factors as well as impinging on the redistributive policies in the destination countries (Kahanec and Zimmermann, 2008, 2011). On the other hand, different migrants may specifically choose to migrate to or seek employment in countries with different degrees of equality. For example, countries with a high share of migrant population, such as the United States, also have higher income inequality. Others like the Scandinavian countries have relatively low shares of foreign population and low degrees of inequality.

Figure 2 shows the correlation between the share of migrants' population and (hourly) wage inequality in destination countries. Wage inequality is represented by the Gini coefficient (ILO, 2018a).[35] Plot (a) shows the relationship for all countries regardless of differences in economic institutions, redistribution policies, as well as the nature, type, and history of immigration. Plot (b) characterizes this relationship using European countries (with the exception of Luxembourg and Switzerland, which are two outlier countries) that share similar immigration histories and economic institutions. The bottom images, plots (c) and (d), describe the relationship between inequality and the presence of migrants when the outliers in plots (a) and (b) (in circles) are excluded. Both figures suggest a weak negative correlation between the share of migrants and the level of wage inequality in destination countries. Countries with lower inequality are also countries with a notable migrant population.

Figure A-1 (see Appendix IV) replicates figure 2 by showing the association between the Gini coefficient and the estimated migrant pay gap from Chapter 3 using the sample of HICs. The figure shows that there is no clear relationship between wage inequalities (represented by the Gini coefficient) and the unadjusted migrant pay gap at the mean hourly wage. However, a higher wage inequality index appears to be weakly correlated with higher levels of the unexplained migrant pay gap (see Chapter 3 for details of the migrant pay gap).

2.4. Labour market participation, unemployment, and educational and occupational attainments of migrants and nationals

Labour market participation of working age migrant populations characterizes the economic activity of migrant workers and their earnings prospects. The extent to which migrants integrate in their destination countries in terms of their labour market outcomes is linked directly to their participation in the labour market. Moreover, migrants' education and prior occupations mirror their skills set and normally raise their chances of obtaining well-paid jobs.

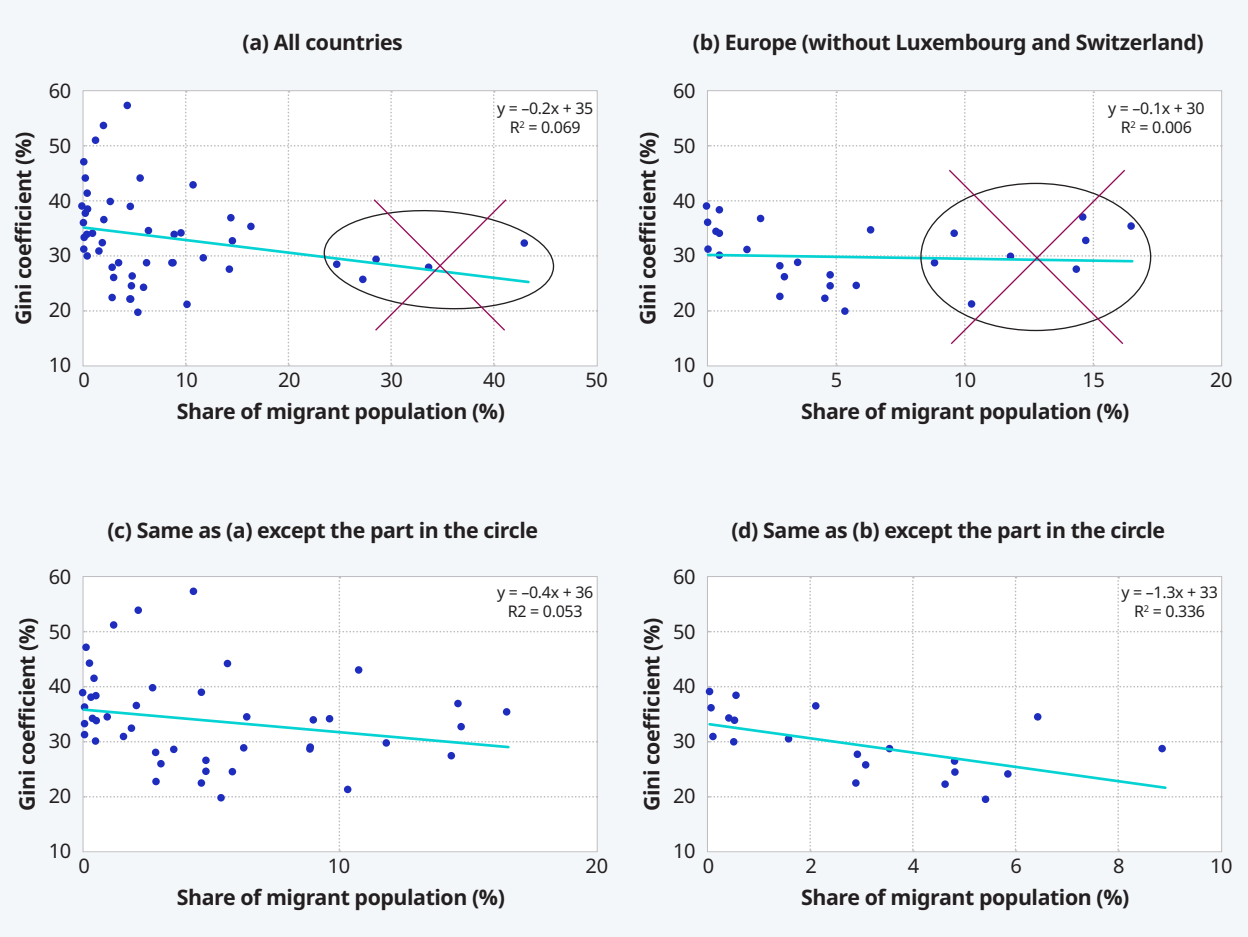
There are a number of factors that determine individuals' economic attainments and drive the economic gap between migrant workers and nationals. Among these, perhaps, the most significant one is human capital. Migrants' labour market success is a function of their skills, including language skills, as well as the transferability of these skills to their new economic environment. In practice, however,

33 See ILO. 2016. General Survey concerning migrant workers instruments, paras 647-650. See also, UN: N*ew York Declaration for Refugees and Migrants*, General Assembly, 71st session, A/RES/71/1, 3 Oct. 2016, para. 40; UN: *Declaration of the UN General Assembly High-level Dialogue on International Migration and Development*, 68th session, A/RES/68/4, 21 Jan. 2014, para. 28.

34 The forms of migration capital may include cultural, social and economic capital that can be converted into advantageous positions in social fields (see Nohl et al., 2006; Erel and Ryan, 2018).

35 The Gini coefficient summarizes the relative distribution of wages in the population, with lower values (closer to zero) indicating lower levels of inequality and higher values (closer to 100 per cent) indicating higher levels of wage inequality (See box 1 for a detailed definition).

▶ **Figure 2. The relationship between the Gini coefficient and the share of migrants' population, latest year, age 16-70 years**



Notes: Data on the Gini coefficient is taken from the Global Wage Report 2018/19, which provides comprehensive estimates of within country wage inequality for high-, middle- and low- income countries. Plot (a) shows a scatter plot of the Gini coefficient as a function of the share of migrant population in all the 49 destination countries (see Table 1) with a linear line plot. Plot (b) shows a similar plot but using data from European countries with the exception of Luxembourg and Switzerland. Plots (c) and (d) shows same plots in (a) and (b) respectively, excluding the countries in the circles. Figure A1 in Appendix IV replicates this figure by showing the relationship between the estimated migrant pay gap in Chapter 3 and the Gini coefficient, using the sample of high-income countries.

Source: ILO estimates based on survey data provided by national sources (see Appendix II).

migrants are typically likely to be affected by skills mismatch and may have difficulties transferring their skills and experience across countries (Sparreboom and Tarvid, 2017), in large part due to lack of adequate skills recognition systems for qualifications of migrant workers. Migrants' skills are often not fully recognized and migrants frequently resort to continuous work in lower-skilled jobs that do not account for their higher skills level (ibid.).

This section presents statistics for the working age population of a sample of 33 HICs and 16 LMICs on labour force participation, unemployment, and educational and occupational attainments of migrants and nationals. Labour force participation refers to the ratio of "active labour market participants"[36] to all individuals of working age. Educational attainment is pooled together and defined by four categories: "less than or equal to primary education", "lower secondary education without high school diploma", "secondary education (completed), including vocational training", and "university education". Occupational attainment here refers to the proportion of individuals who attain high-skilled

36 These include individuals of working age who are either wage employees, employers, own-account workers, unpaid workers or unemployed (but actively seeking for employment).

occupations with job titles including senior official, chief executive officer (CEO), manager, professional, associate professional, and technical officer.[37]

Table 4 presents country level estimates of labour force participation along with unemployment and proportions of migrant workers and nationals with high-skilled occupations, separating estimates for women and men to highlight gender differences in labour market attributes. Figure 3 compares the labour force participation of men and women. Table 5, on the other hand, presents disaggregated estimates of levels of education of migrants and nationals, including its gender dimensions. This is to highlight some of the salient stylized patterns of migrant-national labour market gaps and the role of human capital in driving these gaps.

Migrants tend to have higher labour force participation than nationals in HICs, but not in LMICs

Similarly to findings from the *ILO Global Estimates Report on International Migrant Workers* (2018b), migrants of working age in the EU and in the sample of 33 HICs tend to have higher labour force participation than non-migrants, on average (73.9 per cent and 67.0 per cent, respectively in the EU, and 72.1 per cent and 69.0 per cent, respectively in the sample of HICs), with notable exceptions (table 4). For example, among the sample of HICs covered in this report, migrants' labour force participation is lowest in Slovakia (56.1 per cent) and highest in Iceland (95.2 per cent), whereas that of nationals is lowest in Greece (60.0 per cent) and highest in Iceland (89.3 per cent).

In terms of distribution by sex, migrant men in the sample of HICs tend to have higher labour force participation rates than non-migrant men, on average (83.1 per cent and 74.1 per cent, respectively), with some variations across countries (table 4 and figure 3). Estimates for migrant women and non-migrant women based on data from the sample of 33 HICs are however different from the findings from the *ILO Global Estimates Report on International Migrant Workers* (2018b). The average labour force participation in the sample of HICs is estimated at 61.3 per cent for migrant women, which is lower than the average labour force participation for non-migrant women (64.0 per cent), though variations do exist across countries (see figure 3 and table 4).

Among the 16 LMICs covered in the report, migrants tend to have lower labour force participation than non-migrants, on average (62.0 per cent and 64.6 per cent, respectively), with variations across countries (see figure 3 and table 4). For example, migrants' labour force participation is lowest in Turkey (50.2 per cent) and highest in Romania (95.1 per cent), whereas that of nationals is lowest in Gambia (38.0 per cent) and highest in Madagascar (93.9 per cent). Both migrant men and women have lower participation rates than their non-migrant counterparts on average (78.6 per cent for migrant men versus 81.7 per cent for non-migrant men, and 45.9 per cent for migrant women versus 48.4 per cent for non-migrant women).

The higher labour force participation of migrants in the EU and in HICs, particularly of migrant men, is consistent with the hypothesis of positive-selection, whereby it is individuals with stronger labour market potential, economic motives, and a desire to work who tend to migrate for economic purposes (see Chiquiar and Hanson, 2005; McKenzie and Rapoport, 2010; Parey et al., 2015). The lower labour force participation of migrant women relative to migrant men and non-migrant women in the EU and in HICs may be explained by: (i) the fact that migrant women are more likely to engage in unpaid care work, which is a major barrier to women's labour force participation (ILO, 2018c); (ii) and the higher likelihood of women to migrate for reasons other than employment (for instance, for family reunification or humanitarian reasons), as well as possible discrimination against migrant women that reduces their employment opportunities (see, eg, ILO, 2018b; Kapur, 2010; OECD, 2009).

Migrant workers tend to have higher unemployment rates than nationals in both HICs and LMICs

In comparison to nationals, men and women migrant workers have higher unemployment rates on average than nationals in the EU and the sample of 33 HICs (13.5 per cent and 8.3 per cent, respectively in the EU, and 7.7 per cent and 5.9 per cent, respectively in HICs), with notable variations across countries (table 4). Both migrant men and migrant women in the sample of HICs tend to have higher unemployment rates on average than their non-migrant counterparts (7.5 per cent for migrant men versus 6.2 per cent for men nationals, and

37 See section 2.5.3 for detailed description of various occupational categories.

8.0 per cent for migrant women versus 5.6 per cent for women nationals). This finding is consistent with recent findings in the OECD's International Migration Outlook 2020 (see, OECD, 2020b). This phenomenon is consistent with the hypothesis of slow adaptation of migrants to the labour market of their countries of destination (Kahanec and Zimmermann, 2008, 2011), holding that it takes some time for migrant workers to retrain and integrate in a new labour market. Migrant workers may begin as unemployed, but experience substantial advancement and substantial wage progression later in the life-cycle.

In the sample of LMICs, migrant workers on average have slightly higher unemployment rates than their national counterparts (6.8 per cent and 6.2 per cent, respectively). In terms of distribution by sex, while the estimated unemployment rate for migrant men is slightly lower than that for non-migrant men (5.4 per cent and 5.9 per cent, respectively), the corresponding estimate for migrant women is higher than that for non-migrant women (8.6 per cent and 6.4 per cent, respectively).

Migrant workers tend to have fewer high-skilled occupations than nationals in HICs but more high-skilled occupations than nationals in LMICs

Among the sample of 33 HICs and in the EU, and based on latest available data, fewer men and women migrant workers among the total working age migrants obtain high-skilled jobs (such as senior official, chief executive officer (CEO), manager, professional, associate professional, and technical officer positions) than nationals on average. The average proportion of men and women with high-skilled occupations is estimated at only 25.1 per cent for migrant workers compared to 31.6 per cent for nationals in the EU, and only 22.7 per cent for migrant workers compared to 32.5 per cent for nationals in the sample of HICs (table 4). However, there exists remarkable variations across the sample of HICs. For example, the proportion of men and women migrant workers who have high-skilled jobs is lowest in Greece (6.2 per cent) and highest in Malta (57.0 per cent), whereas that of nationals is lowest in Argentina (16.1 per cent) and highest in Slovenia (71.0 per cent).

However, in terms of distribution by sex, migrant women hold even fewer high-skilled positions than migrant men in HICs. While the average proportion of migrant men with high-skilled jobs is estimated at 25.3 per cent, only 19.8 per cent of migrant women tend to have higher skilled positions.

A different picture emerges among the sample of 16 LMICs covered in the report. More men and women migrant workers among the total working age migrants in LMICs obtain high-skilled jobs than nationals, with the average proportion of migrant workers with high-skilled occupations estimated at 15.8 per cent, while the corresponding average proportion of non-migrant workers is estimated at 8.8 per cent. Among the 16 LMICs, the proportion of men and women migrant workers attaining high-skilled jobs is lowest in Jordan (1.9 per cent) and highest in Romania (56.3 per cent), whereas that of nationals is lowest in the United Republic of Tanzania (2.7 per cent) and highest in Bulgaria (23.4 per cent). Both men and women migrant workers in the sample of LMICs have more high-skilled jobs than their non-migrant counterparts on average (20.8 per cent for migrant men versus 10.7 per cent for men nationals, and 11.3 per cent for migrant women versus 7.1 per cent for women nationals).

Migrants tend to have higher education than nationals in both HICs and LMICs

The educational composition of migrant workers may partly explain the observed labour market gaps between migrants and nationals, though table 5 provides only a limited support for this conjecture. On average, the level of education, in particular the proportion of men and women with university education is considerably higher among migrant workers than nationals in both the samples of HICs and LMICs, and shows large variations by sex. While about 30.5 per cent and 29.0 per cent of migrants in the EU and the sample of HICs, respectively have university education, on average, the corresponding estimates for nationals in the EU and the sample of HICs are 27.4 per cent and 28.8 per cent, respectively. Among the sample of HICs covered in the report, the proportion of men and women migrant workers with university education is lowest in Slovenia (8.1 per cent) and highest in Ireland (46.3 per cent), whereas that of nationals is lowest in Chile (12.7 per cent) and highest in Ireland (37.6 per cent). On average, the proportion with university education in the sample of HICs is higher for both migrant women (30.8 per cent) and women nationals (31.0 per cent) than the corresponding

▶ Table 4. Labour market participation, unemployment and occupational attainment of migrants and nationals by sex, latest years

Labour market participation by sex

Country	Nationals			Migrants		
	Total (%)	Men (%)	Women (%)	Total (%)	Men (%)	Women (%)
High-income countries (HICs)						
Austria	66.3	72.4	60.3	67.9	80.2	56.9
Belgium	63.2	67.1	59.4	60.5	66.7	53.9
Croatia	60.7	66.1	55.4	65.2	70.9	61.0
Cyprus	67.4	73.3	61.6	80.4	83.3	78.5
Czech Republic	66.1	73.6	58.8	69.5	81.2	58.1
Denmark	70.1	72.7	67.4	73.2	80.8	66.8
Estonia	72.4	75.3	69.7	70.8	78.8	61.7
Finland	71.6	72.9	70.3	67.7	77.6	57.7
France	65.7	68.9	62.6	64.2	70.6	58.8
Greece	60.0	67.9	52.4	72.2	84.5	61.3
Hungary	62.1	69.2	55.3	77.0	93.1	63.1
Ireland	62.5	69.8	55.4	67.2	73.3	61.8
Italy	60.7	70.4	51.1	75.1	85.7	66.3
Latvia	73.2	76.8	69.9	67.4	75.3	59.9
Lithuania	69.6	73.6	65.9	70.7	78.8	63.6
Luxembourg	60.1	65.6	54.4	72.0	79.2	64.7
Malta	60.5	73.8	46.8	57.8	71.5	46.5
Netherlands	71.5	76.4	66.6	77.4	93.6	67.8
Poland	67.4	74.6	60.4	92.9	96.0	86.9
Portugal	67.6	72.0	63.5	74.2	82.8	68.5
Slovakia	68.7	75.0	62.6	56.1	53.4	59.8
Slovenia	63.2	67.7	58.5	80.6	89.9	66.1
Spain	70.1	74.9	65.3	79.8	87.9	72.6
Sweden	79.5	81.2	77.9	68.0	77.2	58.9
United Kingdom	69.7	74.0	65.4	72.1	81.1	64.1
Iceland	89.3	92.7	86.0	95.2	96.3	94.3
Norway	73.0	76.4	69.7	81.1	85.7	76.3
Switzerland	79.0	82.8	75.1	81.1	84.8	77.7
Australia	74.9	79.3	70.5	72.0	82.0	62.9
United States	69.7	74.5	65.2	69.9	84.2	54.9
Canada	73.8	76.5	71.1	74.0	80.4	68.1
Argentina	66.9	78.2	56.6	70.1	83.8	58.2
Chile	64.8	77.1	53.7	83.6	93.1	75.0
EU average	**67.0**	**72.5**	**61.6**	**73.9**	**81.5**	**67.1**
High-income	**69.0**	**74.1**	**64.0**	**72.1**	**83.1**	**61.3**
Low- and middle-income countries (LMICs)						
Bulgaria	66.7	71.3	62.1	50.6	46.4	53.9
Romania	62.7	72.7	52.9	95.1	89.1	100.0
Turkey	57.1	77.3	36.8	50.2	74.0	29.3
Albania	58.6	68.8	49.3	50.3	67.6	34.4
Jordan	40.0	65.0	15.0	52.9	75.6	16.8
Bangladesh	60.8	84.6	37.9	54.0	79.7	32.9
Nepal	40.8	57.3	27.9	80.1	94.9	33.9
Gambia	38.0	50.8	26.7	60.8	81.0	37.2
Madagascar	93.9	95.0	92.7	77.0	74.2	82.7
Malawi	80.4	85.9	75.6	75.5	89.9	65.6
Namibia	64.5	69.6	60.0	70.1	79.2	58.5
Sierra Leone	60.6	61.3	60.0	59.2	69.1	48.5
Tanzania**	86.5	90.5	82.8	82.7	91.6	74.1
Bolivia*	71.1	83.2	59.8	60.2	75.2	46.8
Costa Rica	65.7	79.8	51.2	71.7	89.2	55.6
Mexico	69.6	86.1	54.8	62.9	77.3	48.5
Low- and middle-income	**64.6**	**81.7**	**48.4**	**62.0**	**78.6**	**45.9**

Unemployment by sex

Country	Nationals			Migrants		
	Total (%)	Men (%)	Women (%)	Total (%)	Men (%)	Women (%)
High-income countries (HICs)						
Austria	5.6	5.6	5.6	15.2	18.9	11.9
Belgium	6.8	6.6	7.0	13.4	14.3	12.5
Croatia	15.1	15.7	14.5	22.6	17.7	26.2
Cyprus	14.6	15.1	14.1	18.2	18.1	18.2
Czech Republic	7.0	6.2	7.8	7.0	9.0	5.1
Denmark	4.5	4.7	4.3	12.5	10.4	14.3
Estonia	7.1	8.7	5.8	12.8	14.6	10.7
Finland	6.6	7.6	5.7	17.0	16.0	18.0
France	6.3	6.4	6.2	12.5	11.4	13.4
Greece	15.4	14.7	16.1	21.3	21.2	21.3
Hungary	6.5	7.6	5.5	5.2	8.5	2.2
Ireland	11.8	15.0	8.8	12.5	12.2	12.9
Italy	8.9	9.2	8.5	13.4	14.3	12.7
Latvia	9.3	10.7	8.0	8.1	9.4	6.8
Lithuania	8.9	10.1	7.7	12.0	2.7	20.1
Luxembourg	2.6	2.8	2.4	6.0	6.6	5.5
Malta	4.5	5.1	3.9	6.0	4.2	7.6
Netherlands	7.2	7.0	7.4	15.4	7.4	20.2
Poland	11.2	12.1	10.3	8.2	5.6	13.2
Portugal	14.0	14.8	13.3	16.4	17.1	16.0
Slovenia	9.1	9.1	9.2	18.6	11.7	29.2
Spain	17.8	17.6	18.0	27.0	28.9	25.3
Sweden	4.4	4.8	4.0	9.9	11.5	8.4
United Kingdom	4.3	5.2	3.5	6.2	6.6	5.8
Iceland	3.6	3.8	3.4	10.1	6.4	13.3
Norway	4.3	4.6	3.9	7.5	7.1	8.0
Switzerland	1.9	1.9	1.8	4.0	2.6	5.4
Australia	3.8	4.1	3.5	3.9	4.2	3.7
United States	3.2	3.4	3.0	3.0	2.9	3.1
Canada	10.2	9.7	10.7	9.6	9.0	10.2
Argentina	6.3	6.5	6.1	5.9	7.2	4.8
Chile	4.7	5.2	4.2	5.1	5.0	5.2
EU average	**8.3**	**8.7**	**8.0**	**13.5**	**12.5**	**15.4**
High-income	**5.9**	**6.2**	**5.6**	**7.7**	**7.5**	**8.0**
Low- and middle-income countries (LMICs)						
Turkey	7.2	8.7	5.7	6.6	9.3	4.3
Albania	9.4	12.4	6.6	12.3	17.9	7.2
Jordan	7.2	9.7	4.7	5.7	8.6	0.9
Bangladesh	2.7	2.8	2.5	1.4	1.2	1.5
Nepal	5.0	6.4	4.0	1.1	0.3	3.5
Gambia	4.3	5.1	3.6	5.4	4.8	6.1
Madagascar	4.0	3.2	4.8	2.6	3.8	
Malawi	6.8	6.0	7.5	3.4	1.8	4.5
Namibia	16.1	16.4	15.8	10.1	8.8	11.8
Sierra Leone	5.5	6.1	5.1	8.8	13.4	3.8
Tanzania**	9.3	8.7	9.8	7.7	7.4	7.9
Bolivia*	2.4	2.4	2.4	0.3		0.6
Costa Rica	6.6	6.7	6.4	5.8	5.8	5.8
Mexico	7.9	6.0	9.5	7.1	6.4	7.9
Low- and middle-income	**6.2**	**5.9**	**6.4**	**6.8**	**5.4**	**8.6**

(Table 4 continued on page 22)

(Table 4 continued from page 21)

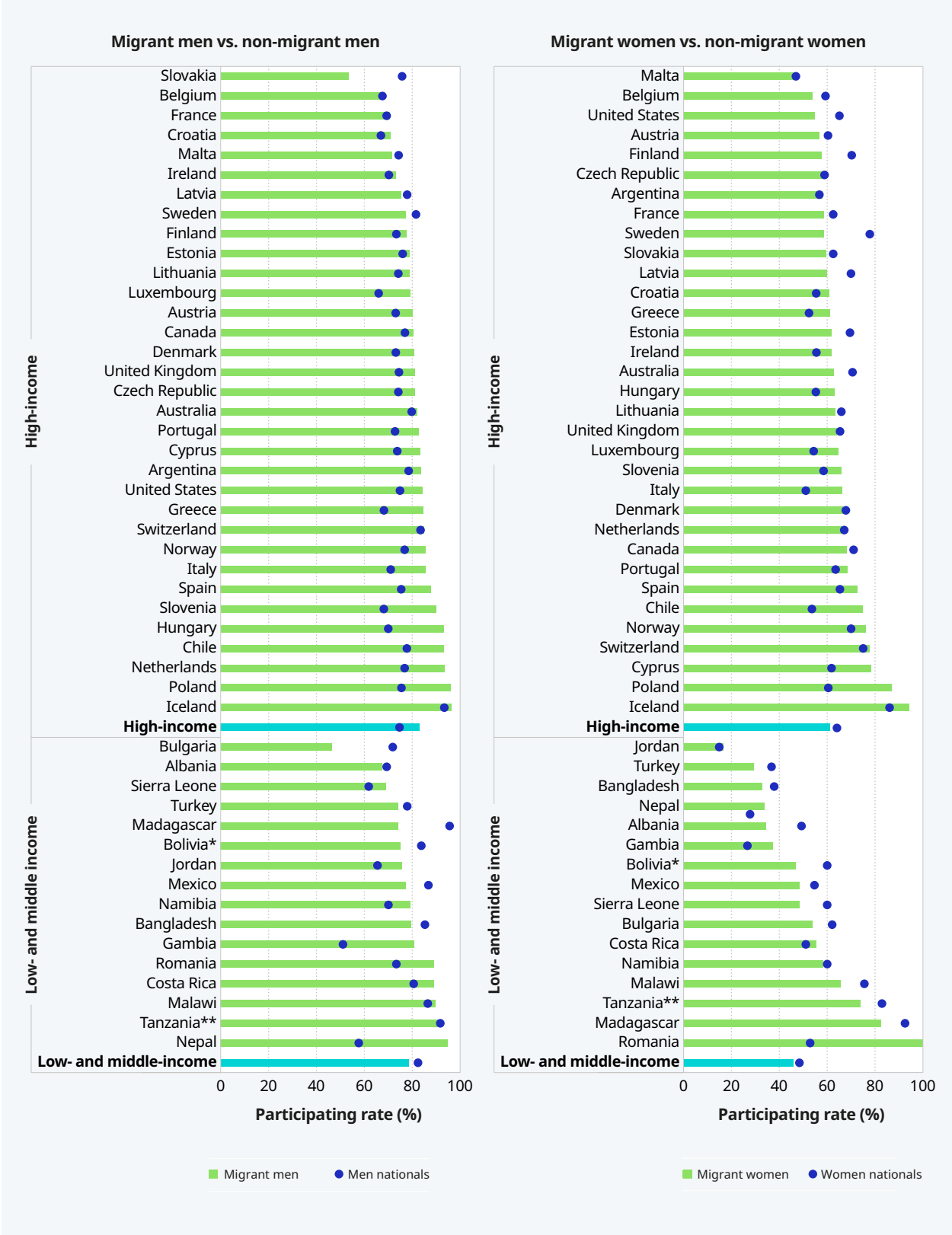
Proportion with high-skilled occupations by sex

Country	Nationals			Migrants		
	Total (%)	Men (%)	Women (%)	Total (%)	Men (%)	Women (%)
High-income countries (HICs)						
Austria	35.4	37.1	33.6	21.6	23.1	20.2
Belgium	36.3	37.4	35.2	21.9	25.7	17.8
Croatia	22.2	22.3	22.1	20.3	15.8	23.6
Cyprus	27.5	28.1	26.9	17.0	19.1	15.6
Czech Republic	29.7	28.9	30.5	31.0	30.4	31.6
Denmark	37.6	34.1	41.1	26.3	26.9	25.8
Estonia	38.4	33.4	43.0	19.6	19.0	20.4
Finland	37.2	35.9	38.4	27.6	29.4	25.7
France	35.8	38.3	33.3	22.9	22.7	23.1
Greece	21.7	22.9	20.6	6.2	5.6	6.7
Hungary	26.4	22.4	30.1	32.5	35.5	29.8
Ireland	28.3	29.3	27.3	21.4	20.5	22.2
Italy	26.7	29.0	24.4	8.5	8.5	8.5
Latvia	33.4	26.4	39.6	23.0	22.2	23.7
Lithuania	32.9	26.3	38.9	41.3	44.4	38.7
Luxembourg	40.0	41.5	38.4	30.8	34.1	27.5
Malta	35.7	36.0	35.3	57.0	56.7	57.3
Netherlands	40.3	43.1	37.4	25.8	31.2	22.7
Poland	24.2	19.5	28.8	40.4	48.2	25.3
Portugal	25.5	26.3	24.8	13.8	16.6	12.0
Slovakia	28.3	25.4	31.2	13.8	12.4	15.8
Slovenia	71.0	72.9	69.1	55.0	68.7	33.8
Spain	23.7	25.0	22.4	10.8	11.5	10.2
Sweden	43.3	41.7	44.9	30.4	29.4	31.4
United Kingdom	40.5	42.3	38.7	31.5	30.2	32.6
Iceland	37.0	33.4	40.6	15.3	12.4	17.9
Norway	44.8	43.8	45.7	38.3	40.8	35.7
Switzerland	43.3	47.6	39.0	39.5	42.1	37.0
Australia	35.0	42.3	27.8	34.6	44.1	25.9
United States	32.8	33.0	32.6	19.6	23.5	15.5
Canada	36.9	29.5	44.4	37.1	36.2	37.8
Argentina	16.1	16.8	15.5	10.9	13.5	8.7
Chile	17.1	17.6	16.6	17.3	20.9	14.1
EU average	**31.6**	**32.2**	**31.1**	**25.1**	**27.0**	**22.8**
High-income	**32.5**	**32.9**	**32.2**	**22.7**	**25.3**	**19.8**
Low- and middle-income countries (LMICs)						
Bulgaria	23.4	20.8	26.0	27.9	39.3	19.0
Romania	14.9	15.3	14.5	56.3	70.8	44.5
Turkey	10.4	13.9	6.9	10.6	12.5	8.8
Albania	8.5	8.7	8.4	8.1	10.0	6.3
Jordan	10.4	12.9	7.8	1.9	2.5	0.9
Bangladesh	4.7	7.0	2.4	6.9	13.2	1.8
Nepal	5.1	7.4	3.2	7.7	9.0	3.5
Gambia	6.4	10.6	2.7	7.4	11.5	2.6
Madagascar	3.3	4.0	2.7	16.1	19.1	9.8
Malawi	2.8	4.0	1.7	5.4	11.6	1.1
Namibia	8.8	8.9	8.8	16.8	16.4	17.3
Sierra Leone	2.9	4.3	1.7	3.5	5.4	1.5
Tanzania**	2.7	3.3	2.2	9.2	14.4	4.0
Bolivia*	11.9	13.4	10.5	18.1	21.9	14.7
Costa Rica	12.5	13.8	11.2	5.3	6.5	4.2
Mexico	9.6	11.0	8.3	18.2	22.3	14.0
Low- and middle-income	**8.8**	**10.7**	**7.1**	**15.8**	**20.8**	**11.3**

Note: EU, high-income, and low- and middle-income estimates are the averages of the European Union, the sample of high-income countries, and low- and middle-income countries, respectively. Averages are weighted by the number of wage employees in each country. Occupational attainment comprises the proportion of individuals with job titles such as: chief executive officer (CEO), manager, professional, associate professional, and technical officer. * the Plurinational State of Bolivia; ** the United Republic of Tanzania.

Source: ILO estimates based on survey data provided by national sources (see Appendix II).

▶ Figure 3: Labor force participation rates of migrants and nationals by sex, latest years



Note: * the Plurinational State of Bolivia; ** the United Republic of Tanzania.

Source: ILO estimates based on survey data provided by national sources (see Appendix II).

proportions for migrant men (28.6 per cent) and men nationals (27.2 per cent).

In the sample of LMICs, the educational gap in favour of both men and women migrants is much wider than in the sample of HICs. While the proportion of total migrants with university education is estimated at 33.0 per cent in LMICs, on average, the corresponding proportion for nationals is estimated at 19.8 per cent. The proportion with university education is lowest in Nepal (3.3 per cent) and highest in Costa Rica (59.0 per cent) among migrants in the sample of LMICs, whereas that of nationals is lowest in Sierra Leone (0.9 per cent) and highest in Mexico (35.0 per cent). In terms of sex, on average, the proportion with university education in the sample of LMICs is higher for both migrant women (26.3 per cent) and women nationals (16.0 per cent) than the corresponding proportions for migrant men (26.2 per cent) and men nationals (14.6 per cent).

The findings corroborate earlier ILO research comparing the education of men and women workers (see, e.g., ILO, 2018a). While education is an important determinant of labour market outcomes, it does not seem to be the sole driver of the observed migrant pay gap as analysed in Chapter 3.

▶ Table 5. Education of migrants and nationals by sex, latest years

Nationals

Country	Total				Men				Women			
	<=Primary (%)	Lower Sec. (%)	Upper Sec./Voc. (%)	University (%)	<=Primary (%)	Lower Sec. (%)	Upper Sec./Voc. (%)	University (%)	<=Primary (%)	Lower Sec. (%)	Upper Sec./Voc. (%)	University (%)
High-income countries (HICs)												
Austria	0.0	16.5	54.7	28.8	0.0	13.1	55.7	31.2	0.0	20.0	53.7	26.3
Belgium	1.7	23.2	38.1	36.9	1.7	23.8	40.5	34.1	1.8	22.6	35.8	39.8
Croatia	0.3	22.7	61.8	15.1	0.1	18.2	68.6	13.1	0.5	27.2	55.2	17.1
Cyprus	2.1	25.4	41.4	31.1	1.6	26.6	44.6	27.2	2.6	24.1	38.3	35.1
Czech Republic	0.2	11.8	71.1	17.0	0.2	9.5	73.9	16.4	0.2	14.0	68.3	17.5
Denmark	0.0	23.1	44.3	32.6	0.0	24.5	46.9	28.6	0.0	21.7	41.7	36.6
Estonia	0.1	17.9	47.6	34.4	0.1	22.8	53.2	23.8	0.1	13.5	42.6	43.8
Finland	0.0	21.1	44.3	34.6	0.0	23.7	47.2	29.1	0.0	18.5	41.5	40.0
France	1.0	21.4	48.2	29.4	1.0	20.1	51.6	27.2	1.0	22.6	44.8	31.5
Greece	1.4	29.2	42.8	26.6	1.2	27.8	44.5	26.5	1.7	30.5	41.2	26.6
Hungary	0.1	18.8	59.1	21.9	0.1	16.9	63.9	19.0	0.2	20.6	54.7	24.6
Ireland	0.0	31.0	31.3	37.6	0.0	35.4	27.3	37.3	0.0	26.7	35.3	38.0
Italy	0.8	41.1	41.3	16.8	0.7	41.6	41.7	16.0	1.0	40.5	40.8	17.7
Latvia	0.3	15.9	55.7	28.0	0.4	19.6	60.6	19.4	0.2	12.7	51.3	35.7
Lithuania	0.4	13.1	57.6	28.9	0.4	14.8	60.6	24.2	0.4	11.6	54.8	33.2
Luxembourg	0.9	30.3	45.0	23.7	0.9	26.4	49.0	23.7	0.9	34.4	41.0	23.7
Malta	0.1	58.0	24.9	17.0	0.1	57.9	25.3	16.7	0.1	58.1	24.5	17.3
Netherlands	0.6	23.4	42.7	33.3	0.6	22.3	42.8	34.2	0.6	24.5	42.5	32.4
Poland	0.3	13.6	63.3	22.8	0.3	13.4	66.6	19.6	0.2	13.9	60.0	25.9

Country	Total				Men				Women			
	<=Primary (%)	Lower Sec. (%)	Upper Sec./Voc. (%)	University (%)	<=Primary (%)	Lower Sec. (%)	Upper Sec./Voc. (%)	University (%)	<=Primary (%)	Lower Sec. (%)	Upper Sec./Voc. (%)	University (%)
Portugal	3.8	59.2	20.7	16.3	2.8	63.4	21.0	12.8	4.7	55.2	20.4	19.7
Slovakia	0.1	11.6	67.4	20.9	0.1	10.5	71.2	18.1	0.1	12.7	63.6	23.5
Slovenia	0.0	17.4	56.0	26.6	0.0	15.8	62.0	22.1	0.0	18.9	49.9	31.2
Spain	4.7	41.1	22.8	31.4	4.1	43.2	23.0	29.6	5.3	39.0	22.5	33.2
Sweden	0.0	16.5	48.3	35.2	0.0	16.8	54.1	29.1	0.0	16.3	42.3	41.4
United Kingdom	2.6	31.9	30.4	35.1	2.5	33.0	30.2	34.4	2.7	30.9	30.6	35.8
Iceland	0.0	33.0	37.7	29.3	0.0	33.7	42.8	23.6	0.0	32.3	32.6	35.1
Norway	0.7	24.6	40.8	33.8	0.6	26.1	43.6	29.8	0.8	23.2	38.2	37.8
Switzerland	11.3	51.8	19.8	17.1	10.6	46.3	21.6	21.5	12.1	57.3	17.9	12.7
Australia	0.3	22.7	53.4	23.6	0.3	21.7	57.1	20.9	0.3	23.6	49.7	26.3
United States	0.9	2.5	64.5	32.1	0.9	2.7	66.2	30.2	0.9	2.3	63.0	33.9
Canada	2.4	11.4	63.6	22.6	2.7	12.7	65.1	19.4	2.0	10.1	62.2	25.8
Argentina	4.1	37.1	42.0	16.8	2.7	12.7	65.1	19.4	2.0	10.1	62.2	25.8
Chile	1.3	19.4	66.6	12.7	2.7	12.7	65.1	19.4	2.0	10.1	62.2	25.8
EU average	**1.6**	**27.6**	**43.6**	**27.4**	**1.5**	**27.6**	**45.5**	**25.5**	**1.7**	**27.6**	**41.7**	**29.1**
High-income	**1.5**	**16.2**	**53.6**	**28.8**	**1.4**	**15.7**	**55.8**	**27.2**	**1.5**	**15.3**	**52.3**	**31.0**
Low- and middle-income countries (LMICs)												
Bulgaria	1.7	23.7	52.8	21.8	1.4	24.0	57.0	17.6	2.1	23.4	48.6	25.9
Romania	0.8	27.1	57.7	14.5	0.8	23.4	61.5	14.3	0.7	30.7	54.0	14.6
Turkey	44.2	30.6	9.1	16.0	36.1	35.1	11.2	17.5	52.3	26.1	7.0	14.5
Albania	5.6	47.5	34.1	12.8	4.9	44.1	38.7	12.3	6.3	50.5	29.9	13.3
Jordan	31.3	26.9	25.9	15.9	29.9	29.9	24.0	16.1	32.7	23.9	27.8	15.6
Bangladesh	53.5	16.2	26.2	4.1	51.6	14.6	28.1	5.8	55.3	17.8	24.4	2.4
Nepal	50.1	13.1	31.2	5.7	39.7	15.5	36.6	8.2	58.2	11.1	26.9	3.8
Gambia	53.4	16.9	26.9	2.5	47.2	17.9	31.3	3.4	58.8	16.1	23.0	1.7
Malawi	88.2	0.0	9.3	2.5	83.8	0.0	12.4	3.8	92.1	0.0	6.6	1.4
Namibia	39.6	24.1	22.1	5.5	40.4	24.0	22.5	5.1	39.0	24.2	21.7	5.9
Sierra Leone	8.6	14.9	54.2	0.9	9.2	18.5	52.7	1.5	8.1	11.7	55.5	0.5
Bolivia*	25.8	27.0	34.8	12.4	2.7	12.7	65.1	19.4	2.0	10.1	62.2	25.8
Costa Rica	9.9	53.6	19.7	16.8	2.7	12.7	65.1	19.4	2.0	10.1	62.2	25.8
Mexico	10.7	17.5	36.9	35.0	2.7	12.7	65.1	19.4	2.0	10.1	62.2	25.8
Low- and middle-income	**31.2**	**21.0**	**29.1**	**19.8**	**25.2**	**18.6**	**42.3**	**14.6**	**29.8**	**16.8**	**38.3**	**16.0**

(Table 5 continued on page 26)

(Table 5 continued from page 25)

Migrants

Country	Total				Men				Women			
	<=Primary (%)	Lower Sec. (%)	Upper Sec./Voc. (%)	University (%)	<=Primary (%)	Lower Sec. (%)	Upper Sec./Voc. (%)	University (%)	<=Primary (%)	Lower Sec. (%)	Upper Sec./Voc. (%)	University (%)
High-income countries (HICs)												
Austria	0.0	34.3	38.9	26.8	0.0	28.7	43.2	28.2	0.0	39.3	35.1	25.6
Belgium	6.9	30.3	31.4	31.5	6.4	31.4	32.4	29.8	7.4	29.0	30.2	33.4
Croatia	0.6	5.9	71.5	21.9	1.5	6.5	76.5	15.5	0.0	5.5	67.9	26.6
Cyprus	0.4	22.3	46.0	31.3	0.0	25.0	46.7	28.3	0.7	20.5	45.6	33.3
Czech Republic	0.0	14.9	50.1	35.0	0.0	12.5	52.0	35.6	0.0	17.3	48.2	34.5
Denmark	0.0	13.3	49.9	36.8	0.0	6.6	54.1	39.2	0.0	18.9	46.4	34.7
Estonia	0.2	13.2	58.8	27.9	0.0	14.4	61.1	24.5	0.3	11.7	56.2	31.8
Finland	0.0	3.0	58.1	38.8	0.0	3.6	62.1	34.3	0.0	2.4	54.1	43.5
France	8.3	40.0	28.4	23.3	7.6	42.2	32.1	18.1	8.8	38.2	25.3	27.6
Greece	2.5	36.7	43.6	17.1	3.2	39.1	44.8	12.9	2.0	34.7	42.5	20.9
Hungary	0.0	37.3	29.2	33.5	0.0	27.1	43.8	29.1	0.0	46.1	16.6	37.3
Ireland	0.0	13.8	40.0	46.3	0.0	14.5	40.5	45.0	0.0	13.2	39.5	47.4
Italy	2.6	36.1	46.0	15.3	2.3	42.3	42.8	12.6	2.8	31.0	48.7	17.5
Latvia	0.2	10.0	71.8	18.0	0.2	10.7	71.9	17.2	0.2	9.3	71.8	18.7
Lithuania	0.0	17.9	40.6	41.5	0.0	20.9	41.5	37.7	0.0	15.3	39.8	44.9
Luxembourg	1.9	42.5	27.3	28.4	1.6	43.4	27.0	28.0	2.1	41.5	27.6	28.8
Malta	0.2	38.1	29.8	31.9	0.0	39.6	28.5	31.9	0.4	36.9	30.8	31.9
Netherlands	5.1	20.6	47.9	26.4	6.5	15.9	51.4	26.2	4.2	23.3	45.9	26.6
Poland	0.0	2.0	55.1	42.8	0.0	0.0	54.0	46.0	0.0	6.0	57.3	36.7
Portugal	3.1	50.1	33.5	13.3	2.9	53.4	28.5	15.2	3.2	48.0	36.8	12.1
Slovakia	0.0	23.0	62.5	14.5	0.0	22.0	62.2	15.8	0.0	24.4	62.9	12.7
Slovenia	0.0	32.1	59.8	8.1	0.0	25.5	68.8	5.7	0.0	42.4	45.7	11.8
Spain	7.2	35.5	33.6	23.7	7.1	36.6	35.3	20.9	7.2	34.6	32.0	26.3
Sweden	0.0	27.8	28.4	43.7	0.0	28.7	31.7	39.5	0.0	26.9	25.2	47.9
United Kingdom	15.0	18.2	21.6	45.3	14.3	21.2	22.9	41.6	15.6	15.5	20.5	48.5
Iceland	0.0	29.9	49.7	20.3	0.0	30.0	57.0	13.0	0.0	29.8	43.4	26.8
Norway	28.9	18.8	18.6	33.7	27.5	21.3	20.1	31.1	30.4	16.1	17.1	36.4
Switzerland	15.4	43.3	25.0	16.3	13.0	44.7	24.7	17.5	17.5	42.0	25.4	15.2
Australia	1.5	12.7	45.6	39.7	0.6	11.2	48.0	40.2	2.2	14.1	43.4	39.3
United States	12.7	10.2	50.0	27.1	13.2	10.0	50.2	26.5	12.2	10.4	49.7	27.6
Canada	3.7	6.7	49.8	39.8	3.3	7.5	49.1	40.1	4.2	5.9	50.4	39.6
Argentina	8.5	40.5	36.7	14.3	3.3	7.5	49.1	40.1	4.2	5.9	50.4	39.6

Country	Total				Men				Women			
	<=Primary (%)	Lower Sec. (%)	Upper Sec./Voc. (%)	University (%)	<=Primary (%)	Lower Sec. (%)	Upper Sec./Voc. (%)	University (%)	<=Primary (%)	Lower Sec. (%)	Upper Sec./Voc. (%)	University (%)
Chile	0.8	8.2	65.8	25.2	3.3	7.5	49.1	40.1	4.2	5.9	50.4	39.6
EU average	**7.9**	**26.7**	**37.4**	**30.5**	**7.8**	**30.3**	**40.9**	**27.6**	**8.3**	**27.1**	**36.1**	**32.8**
High-income	**10.0**	**18.4**	**43.8**	**29.0**	**10.0**	**18.8**	**44.6**	**28.6**	**9.9**	**17.3**	**43.1**	**30.8**
Low- and middle-income countries (LMICs)												
Bulgaria	0.0	4.6	50.4	45.0	0.0	5.2	55.5	39.3	0.0	4.1	46.6	49.3
Romania	0.0	30.5	36.8	32.7	0.0	0.0	81.7	18.3	0.0	55.5	0.0	44.5
Turkey	32.8	36.3	12.2	18.7	32.2	37.0	13.5	17.3	33.4	35.7	11.1	19.9
Albania	29.6	42.2	16.9	11.3	23.9	44.3	19.9	11.9	34.9	40.2	14.2	10.7
Jordan	57.3	13.6	22.1	7.0	52.1	14.4	26.9	6.6	65.6	12.3	14.5	7.7
Bangladesh	46.0	14.9	29.4	9.7	35.5	16.6	33.1	14.8	54.7	13.5	26.4	5.4
Nepal	56.8	19.1	20.8	3.3	60.8	19.4	17.6	2.2	44.3	18.2	30.8	6.7
Gambia	69.9	9.8	13.9	6.0	67.5	10.7	13.8	7.8	72.7	8.7	14.1	3.9
Malawi	79.4	0.0	12.9	7.7	73.1	0.0	14.9	12.0	83.7	0.0	11.6	4.7
Namibia	26.8	18.6	23.3	19.2	27.6	19.9	21.6	20.3	25.8	16.8	25.5	17.7
Bolivia	14.4	8.9	45.3	31.4	3.3	7.5	49.1	40.1	4.2	5.9	50.4	39.6
Costa Rica	24.1	48.9	16.2	10.8	3.3	7.5	49.1	40.1	4.2	5.9	50.4	39.6
Mexico	4.5	7.6	29.0	59.0	3.3	7.5	49.1	40.1	4.2	5.9	50.4	39.6
Low- and middle-income	**27.1**	**17.5**	**26.3**	**33.0**	**23.1**	**16.4**	**38.7**	**26.2**	**28.5**	**17.4**	**33.7**	**26.3**

Note: EU, high-income, and low- and middle-income estimates are the averages of the European Union, the sample of high-income countries, and low- and middle-income countries, respectively. Averages are weighted by the number of wage employees in each country. "<=Primary" is less than or equal to primary education; "Lower Sec." is lower secondary education without high school diploma; "Upper Sec./Voc." is secondary education (completed), including vocational training; and "University" is university education.

Source: ILO estimates based on survey data provided by national sources (see Appendix II).

2.5. A focus on wage workers

From this part onwards, the sample used in the estimation is restricted to individuals of working age (i.e. adults with ages 16–70) who are wage workers only. In principle, however, the represented sample should include all statuses of employment, except contributing family workers. Due to difficulties in collecting earnings data for self-employed categories (employers and own-account workers), the data is often limited to wage workers only. Nonetheless, from a policy standpoint, wage workers are more likely to be subjected to minimum wage legislation, hence the one group of interest for comparing wages between migrant and non-migrant workers.

2.5.1. Share of wage workers among total labour market participants

The share of wage workers is lower among migrants than non-migrants in HICs but higher among migrants than non-migrants in LMICs

Table 6 reports the share of wage workers among total labour market participants – including wage workers, employers, own-account workers, members of cooperatives, unpaid (family) workers, and the unemployed (who actively seek for employment) – comparing men and women migrant workers to nationals.

Although migrant workers have higher labour force participation in the EU and the sample of HICs on average (see table 4), in table 6, fewer migrants among the total migrant participants in the labour market in the EU and the sample of HICs are wage workers relative to the corresponding share of wage workers among non-migrant labour force participants in these countries (70.6 per cent and 76.5 per cent, respectively in the EU, and 79.5 per cent and 82.6 per cent, respectively in the sample of HICs).

Of course, large variations exist across countries, with for example, the share of wage workers among the total migrant labour market participants in the sample of HICs being lowest in Czech Republic (55.5 per cent) and highest in the United States (88.5 per cent), whereas the corresponding share for nationals is lowest in Greece (49.1 per cent) and highest in Iceland (93.0 per cent). In terms of distribution by sex, on average, fewer migrant men among the total migrant men participants in the

▶ Table 6. Share of wage workers among total labour market participants, latest years

Country	Nationals			Migrants		
	Total (%)	Men (%)	Women (%)	Total (%)	Men (%)	Women (%)
High-income countries (HICs)						
Austria	83.2	82.1	84.6	71.4	70.1	72.9
Belgium	80.3	78.3	82.5	70.3	68.1	73.1
Croatia	67.7	67.0	68.5	60.0	63.5	57.1
Cyprus	69.9	69.2	70.6	71.5	70.7	72.2
Czech Republic	74.5	73.0	76.4	55.5	55.6	55.3
Denmark	88.9	87.0	90.9	77.3	77.7	76.8
Estonia	87.6	85.3	89.9	79.5	80.1	78.6
Finland	84.5	81.9	87.2	67.4	70.5	63.0
France	84.6	83.5	85.8	75.8	78.8	72.7
Greece	49.1	49.1	49.2	57.3	58.2	56.3
Hungary	81.4	80.0	83.0	77.8	87.5	65.5
Ireland	68.5	60.2	78.7	73.6	73.2	73.9
Italy	67.6	65.1	71.0	70.7	68.8	72.8
Latvia	83.3	81.2	85.3	83.6	84.4	82.8
Lithuania	80.8	79.7	82.0	71.8	89.5	52.7
Luxembourg	90.5	90.0	91.2	88.3	89.1	87.3
Malta	84.0	81.7	87.7	73.8	69.8	79.0
Netherlands	81.1	81.1	81.2	66.6	70.4	63.6
Poland	69.6	68.9	70.5	70.9	70.0	72.9
Portugal	70.3	68.8	71.9	65.6	65.7	65.4
Slovakia	72.8	69.2	77.0	79.6	100.0	54.7
Slovenia	76.6	75.0	78.5	73.7	83.1	54.0
Spain	65.4	65.5	65.4	58.0	56.5	59.6
Sweden	91.6	90.3	93.0	82.1	80.8	83.8

Country	Nationals			Migrants		
	Total (%)	Men (%)	Women (%)	Total (%)	Men (%)	Women (%)
United Kingdom	82.9	78.4	87.9	76.3	73.4	79.6
Iceland	93.0	91.9	94.2	87.4	91.6	83.6
Norway	90.7	89.1	92.5	86.3	84.3	88.7
Switzerland	86.0	84.1	88.1	86.2	89.6	82.8
Australia	86.8	85.6	88.2	86.0	84.9	87.2
United States	89.9	89.0	90.8	88.5	88.5	88.4
Canada	74.5	73.6	75.5	71.7	69.7	73.8
Argentina	68.2	67.2	69.5	65.2	62.8	68.2
Chile	70.6	70.2	71.2	79.5	80.4	78.5
EU average	**76.5**	**74.7**	**78.7**	**70.6**	**71.8**	**69.6**
High-income	**82.6**	**81.3**	**84.2**	**79.5**	**79.5**	**79.5**
Low- and middle-income countries (LMICs)						
Bulgaria	76.9	74.4	79.8	65.4	61.1	68.2
Romania	69.8	69.4	70.4	60.4	82.2	44.5
Turkey	59.7	62.5	53.7	75.4	76.1	73.8
Albania	33.6	35.1	31.7	31.3	32.0	30.1
Jordan	71.2	72.4	66.2	83.8	82.5	93.4
Bangladesh	37.1	41.1	28.6	35.7	41.7	23.8
Nepal	48.0	55.6	35.6	48.3	48.0	50.7
Gambia	44.4	50.3	34.4	28.5	29.3	26.6
Madagascar	11.0	14.0	7.9	20.5	26.9	8.6
Malawi	33.2	39.2	27.3	36.3	51.2	22.2
Namibia	52.6	57.6	47.5	60.3	61.3	58.7
Sierra Leone	10.3	16.3	5.0	12.5	17.5	4.7
Tanzania**	13.3	17.8	8.8	30.0	37.0	21.5
Bolivia*	37.3	39.4	34.4	44.0	46.9	39.9
Costa Rica	67.2	67.3	67.2	74.9	76.7	72.1
Mexico	65.3	67.2	62.6	67.1	69.0	64.0
Low- and middle-income	**54.6**	**57.2**	**49.9**	**57.8**	**61.9**	**52.1**

Note: EU, high-income, and low- and middle-income estimates are the averages of the European Union, the sample of high-income countries, and low- and middle-income countries, respectively. Averages are weighted by the number of wage employees in each country. Labour force participants comprise all individuals who are active in the labour market. These include wage workers, employers, own-account workers, members of cooperatives, unpaid (family) workers, and the unemployed (who actively seek for employment).

Source: ILO estimates based on survey data provided by national sources (see Appendix II).

sample of HICs tend to be wage workers relative to the corresponding share of wage workers among the population of non-migrant men participants in these countries (79.5 per cent and 81.3 per cent, respectively). Similarly, fewer migrant women among the total population of migrant women labour force participants in the sample of HICs are wage workers relative to the corresponding share of wage workers among the population of non-migrant women participants (79.5 per cent and 84.2 per cent, respectively).

In the sample of LMICs, however, the share of wage workers among total labour force participants is higher among migrants than non-migrants. On average, 57.8 per cent of migrant participants tend to be wage workers, which is higher than the corresponding percentage of non-migrant participants (54.6 per cent). In Jordan, which has a relatively large migrant share of the total population (of about 33.9 per cent), the proportion of wage employees among the total migrant participants is 83.8 per cent, whereas the corresponding proportion for Jordan nationals is 71.2 per cent. On the other hand, in Sierra Leone, which has just about 1 per cent of migrants in the total population, the proportion of wage workers among the total migrant participants is 12.5 per cent, whereas the corresponding proportion for Sierra Leonean nationals is 10.3 per cent.

2.5.2. Gender and informality among wage workers

According to the most recent global figures, around 2 billion people worldwide work in the informal economy[38], or 6 out of 10 workers, in 2020 (ILO, 2020g). Out of these, just over 740 million are women. Informality concerns close to 9 out of 10 workers in sub-Saharan Africa and Southern Asia. However, while globally the share of women in informal employment is lower than the share of men in informal employment, there are more countries where the share of women in informal employment exceeds the share of men in informal employment. This is particularly the case for countries in sub-Saharan Africa, Southern Asia and Latin America. In LIMCs, an estimated 50 per cent of all wage earners continue to work in the informal economy, either in the informal sector or as informal workers in the formal sector (ILO, 2018d). Migrants, especially women, are more likely to work in the informal economy under poor conditions and with low pay (ILO, 2018c).

Unfortunately, many existing labour force surveys that capture wages of migrant workers and nationals do not cover the informal economy, in particular in most HICs. Therefore, data on the informal economy is available only for 14 of the 49 studied countries in this report[39]. These 14 countries host roughly only 5.3 per cent of international migrants and about 3.0 per cent of migrant workers worldwide. Therefore, estimates for the informal economy generated from these 14 countries are not representative of migrants in the informal economy worldwide but specific only to migrants in these countries.

More active migrant workforce, in particular women migrants in studied countries tend to be in informal employment compared to the non-migrant workforce.

Table 7 presents the proportion of informal economy workers among the total active workforce as well as among wage workers in 14 of the studied countries where data on informality is available. Except for Argentina and Chile, all the countries covered are LMICs. On average, more migrant workers (both active workforce and wage workers) in the studied countries are in informal employment compared to non-migrant workers. While about 63.2 per cent of non-migrant workforce in the 14 studied countries work in the informal economy, about 66.5 per cent of migrant workers work in the informal economy. The gap among wage workers

38 According to the ILO, the informal economy refers to the set of all economic activities by workers and economic units that are – in law and practice – not covered or insufficiently covered by formal arrangements. See http://www.ilo.org/global/topics/employment-promotion/informal-economy/.

39 Although the existence of an informal economy is not unique to low- and middle-income economies, informality in the developed world is often negligible or statistically undetected in many existing labour force surveys. For example, in the case of European economies, the proportion of all employees operating without any type of contractual arrangement varied between 2.7 per cent in the Nordic countries and 9.5 per cent in southern Europe, and which exceeds 10 per cent of the workforce (Hazans, 2011). These estimates contrast with those found in developing economies. Based on statistics compiled by ILO from 47 developing economies, in more than half of these countries the proportion of people in informal employment in non-agricultural activities exceeds 50 per cent, whereas for about one-third of these countries informal employment accounts for at least 67 per cent of non-agricultural employment (ILO, 2013 and 2018f). The clear difference in the magnitude of informality between developed and developing economies suggests the need to develop policy tools specific to low-income and emerging economies to reduce informality worldwide. Although the magnitude of informality amongst developed countries is low – or highly negligible in some cases – it is still important to expand efforts to extend existing labour force surveys to include reliable and comparable information on both informality and migrant workers in developed economies in order to better understand the incidence of informality among migrant workers in these economies.

▶ Table 7. Proportion of informal workers by sex, latest years

Among the active workforce

Country	Nationals			Migrants		
	Total (%)	Men (%)	Women (%)	Total (%)	Men (%)	Women (%)
High-income countries (HICs)						
Argentina	67.9	61.7	73.6	75.3	69.7	80.2
Chile	28.7	26.8	31.3	24.9	19.4	31.2
Low- and middle-income countries (LMICs)						
Turkey	34.2	28.5	46.8	46.0	52.3	31.8
Albania	60.7	58.4	63.4	63.8	65.2	61.5
Bangladesh	94.8	94.0	96.7	91.9	90.9	94.0
Nepal	80.7	77.3	86.4	85.4	84.7	92.3
Gambia	76.5	73.8	81.1	90.0	90.1	89.7
Madagascar	91.0	88.7	93.2	71.4	62.2	88.2
Malawi	85.1	81.1	89.0	78.6	67.3	90.1
Namibia	66.6	65.8	67.5	65.1	65.1	65.1
Tanzania	90.8	88.6	93.0	78.1	72.0	85.5
Bolivia	88.9	86.5	91.2	88.4	78.1	97.6
Costa Rica	62.2	51.2	73.6	65.2	51.2	78.0
Mexico	55.8	55.5	56.3	61.2	61.0	61.6
Weighted average	63.2	60.9	67.1	66.5	65.7	66.4

Among wage workers

Country	Nationals			Migrants		
	Total (%)	Men (%)	Women (%)	Total (%)	Men (%)	Women (%)
High-income countries (HICs)						
Argentina	31.5	29.5	34.0	48.3	45.9	51.0
Chile	15.5	12.3	19.4	17.2	11.5	23.8
Low- and middle-income countries (LMICs)						
Turkey	17.2	16.3	19.4	43.1	51.3	24.4
Albania	18.1	23.1	10.9	31.3	38.3	17.7
Bangladesh	89.5	89.4	89.9	88.3	90.8	79.5
Nepal	85.2	84.7	86.4	91.7	92.3	86.4
Gambia	53.7	54.2	52.2	72.7	75.0	66.2
Madagascar	40.7	39.4	43.2	36.2	29.9	72.9
Malawi	82.1	76.7	89.6	73.3	64.3	93.1
Namibia	62.4	64.1	60.3	66.4	68.5	62.5

(Table 7 continued on page 32)

(Table 7 continued from page 31)

Country	Nationals			Migrants		
	Total (%)	Men (%)	Women (%)	Total (%)	Men (%)	Women (%)
Tanzania	64.5	66.0	61.4	56.7	53.3	63.7
Bolivia	67.2	68.4	65.4	73.7	65.7	87.1
Costa Rica	25.9	22.4	31.6	43.0	37.9	51.0
Mexico	47.6	47.5	47.9	63.8	65.3	61.2
Weighted average	50.8	50.2	51.9	62.4	63.9	57.8

Note: Active workforce comprise all individuals who are active in the labour market. These include wage workers, employers, own-account workers, unpaid (family) workers, and the unemployed. Averages are weighted by the number of wage employees in each country.

Source: ILO estimates based on survey data provided by national sources (see Appendix II).

is even wider, with 50.8 per cent of non-migrant wage workers working in the informal economy whereas the corresponding proportion for migrant wage workers is 62.4 per cent. There are of course variations across the countries. Informality among the active workforce is higher among migrant workers than among nationals in seven of the 14 countries including Albania, Argentina, Costa Rica, the Gambia, Mexico, Nepal, and Turkey. It is higher among migrant wage workers compared to non-migrant wage workers in even more countries (ten of the 14 countries). For example, while only 17.2 per cent of non-migrant wage workers in Turkey works in the informal economy, about 43.1 per cent of migrant wage workers are informal.

In terms of distribution by sex, informal employment is higher among migrant women workers than migrant men workers on average (66.4 per cent and 65.7 per cent, respectively). However, in terms of wage workers, fewer migrant women than migrant men are informal wage workers (57.8 per cent and 63.9 per cent, respectively). This is particularly so partly because fewer migrant women than migrant men are wage workers on average (see table 6).

Compared to their male counterparts, women in the informal economy are more often found in the most vulnerable situations, such as domestic workers, home-based workers or contributing family workers. The over-representation of women in the informal economy is likely to exacerbate their vulnerability to exploitation and abuse, including low or non-payment of wages. Measures that promote the formalization of the informal economy – such as extending to all its workers, including men and women migrants, the right to a minimum wage and social security – can greatly benefit migrant workers, guaranteeing them legal and effective protection, and can help reduce labour market gaps between migrant workers and nationals. Such measures can also help to minimize the enormous impact of the COVID-19 on workers in the informal economy, including men and women migrant workers who are among the hardest hit[40].

2.5.3. Education and occupations of wage workers

The share of wage workers with higher education is lower among migrants than non-migrants in HICs but higher among migrants than non-migrants in LMICs

As mentioned earlier, migrant workers' education normally mirrors their skills set and depicts their chances of obtaining well-paid jobs in their destination countries. Also, migrant workers' education and prior occupations should partly determine their earnings prospects and their economic success. However, in reality, migrant workers are typically likely to be affected by skills mismatch and may have difficulties transferring their skills and experience across countries (Sparreboom and Tarvid, 2017).

Unlike in table 5 where the education of working age migrant workers and that of nationals are compared, figure 4 compares the education of wage workers only. Panel A considers the share of

40 See ILO (2020g) for analysis of the impact of the COVID-19 crisis on the informal economy.

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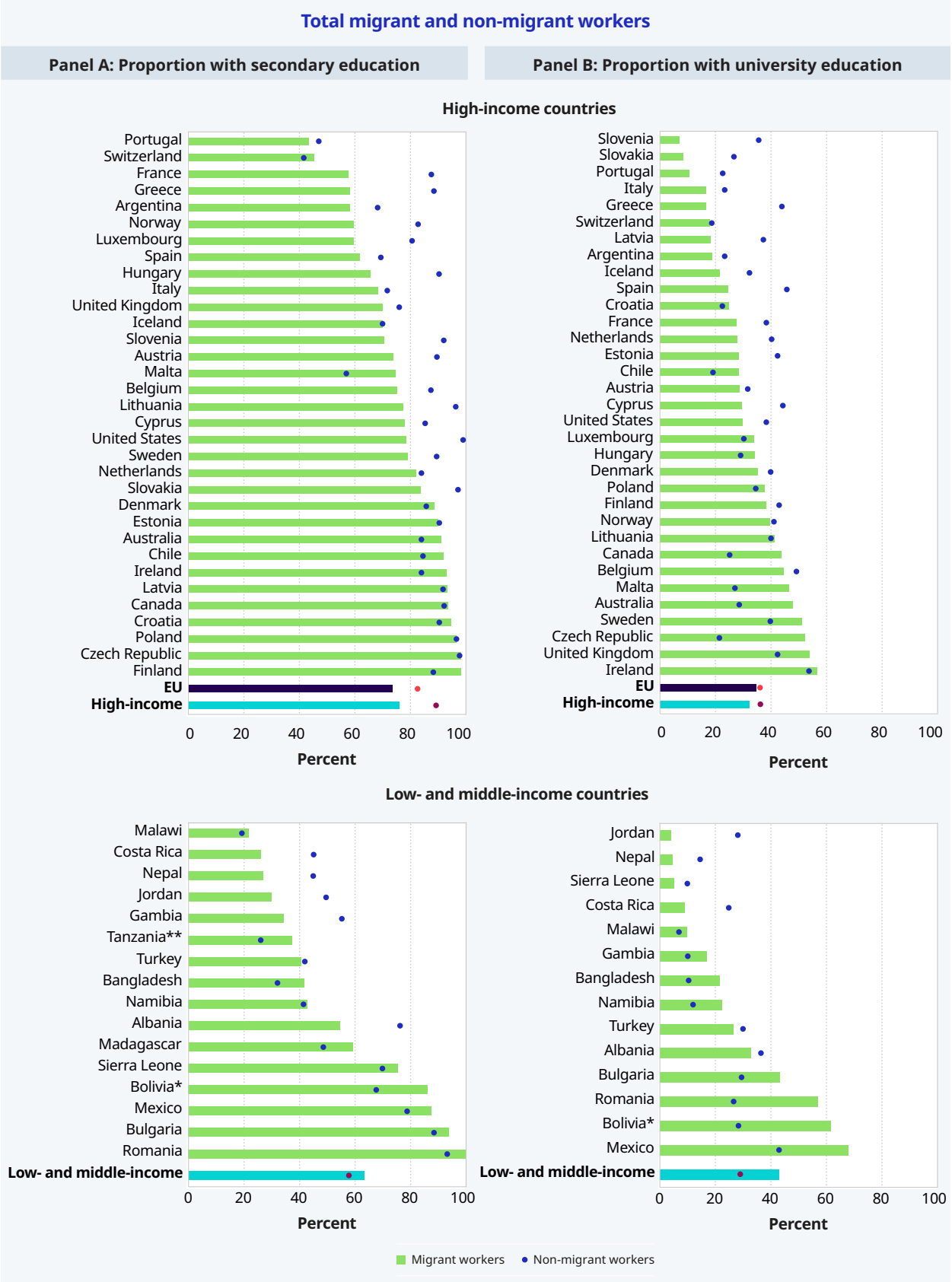
wage employees with secondary school education (including vocational training), while Panel B focuses on individuals with university education.

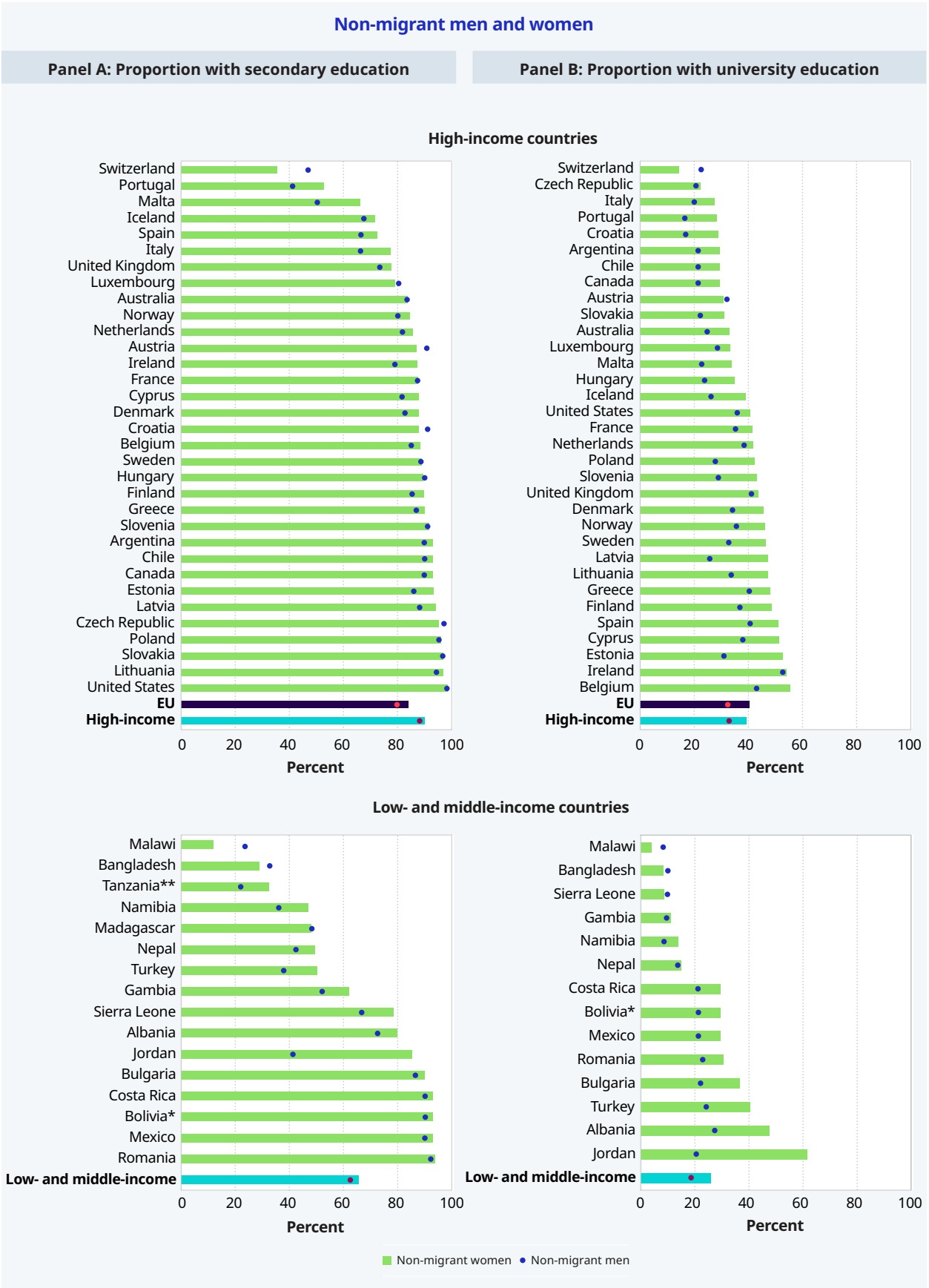
In both panels, the average proportion of wage workers with higher education is lower among migrant workers than among nationals in the sample of HICs (76.1 per cent and 88.4 per cent, respectively in terms of secondary school education, and 32.2 per cent and 35.7 per cent, respectively in terms of university education), with wide variations across countries. For example, while the share of wage workers with university education is higher among nationals in countries such as Belgium, Cyprus, France, Norway, and the United States, it is higher among migrants in Australia, Canada, Luxembourg, Sweden, and the United Kingdom.

Among the sample of LMICs, on the other hand, the share of wage workers with higher education is higher among migrant workers, on average than among nationals across these countries (63.4 per cent and 57.4 per cent, respectively in terms of secondary school education, and 43.0 per cent and 28.1 per cent, respectively in terms of university education), with notable variations across countries. While the share of wage workers with university education is higher among migrants in Bangladesh, Gambia, Malawi, Mexico, and Namibia, for example, it is higher among nationals in countries like Costa Rica, Jordan, Nepal, Sierra Leone, and Turkey.

In terms of the distribution of wage workers' education by sex, the estimates in this report are consistent with previous ILO research comparing the education of men and women wage workers (see, e.g., ILO, 2018a). That is, the education of women, in terms of the share with higher education, outweighs that of men in both the sample of HICs and LMICs, on average. This is true for both migrant women and non-migrant women in almost all the studied countries. Among migrant wage workers, for example, while the share of migrant women with secondary school education is about 78.5 per cent and 67.3 per cent in the samples of HICs and LMICs, respectively, the corresponding share of migrant men is 75.7 per cent in HICs and 66.2 per cent in the sample of LMICs. Similarly, in terms of university education, the share of migrant women is estimated at 35.5 per cent in the sample of HICs and 38.2 per cent in the sample of LMICs, on average, whereas that of migrant men is 31.1 per cent in the sample of HICs and 31.2 per cent in the sample of LMICs.

▶ **Figure 4: The education of migrant and non-migrant wage workers by sex, latest years**





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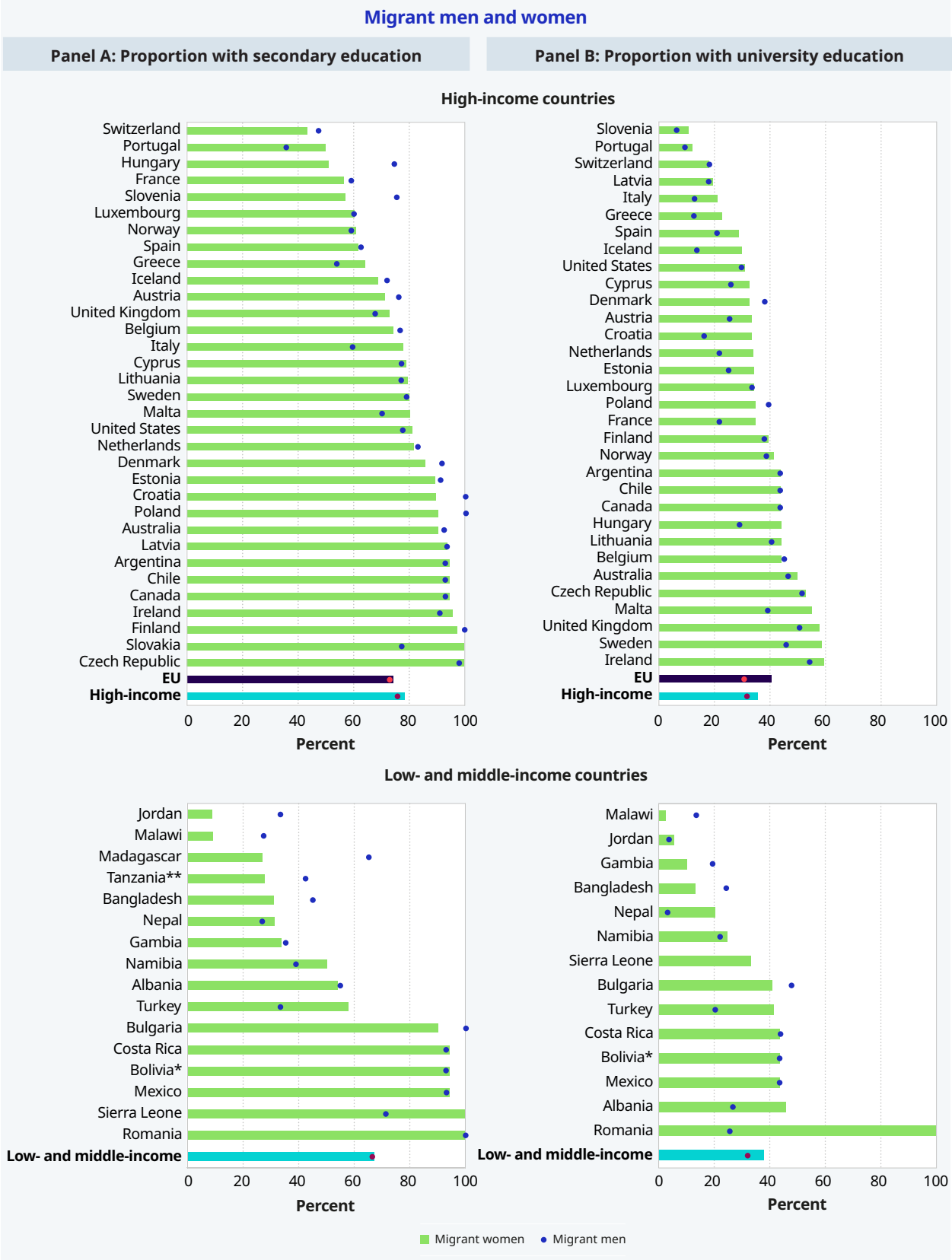


Note: EU, high-income, and low- and middle-income estimates are the weighted averages of the European Union, the sample of high-income countries, and low- and middle-income countries, respectively. Averages are weighted by the number of wage employees in each country. Secondary school education comprises upper secondary and post-secondary non-tertiary including vocational training. University education includes short-cycle tertiary, undergraduate, master and doctoral levels of education. * the Plurinational State of Bolivia; ** the United Republic of Tanzania.

Source: ILO estimates based on survey data provided by national sources (see Appendix II).

Occupations of migrant and non-migrant wage workers

This section of the report looks at the occupational attainment of wage workers, comparing migrant workers with nationals and separating HICs from LMICs. Occupational attainment is categorized into five broad jobs:[41] high-skilled, semi-skilled, low-skilled, and unskilled. In countries where disaggregation of occupations allows for the independent identification of the group "personal care and domestic workers", estimates are shown separately for them as the fifth category. High skilled jobs include (where possible) senior officials, chief executive officers (CEOs) and other managerial positions, professional jobs, technical and associate professional jobs. Semi-skilled jobs consist of clerical support workers, service and sales workers, and skilled agricultural, forestry and fishery workers. Low-skilled jobs comprise craft and related trades workers, plant and machine operators, and assemblers. Unskilled jobs include elementary occupations.

Migrant wage workers predominantly occupy lower skilled jobs in HICs

Figure 5 shows how migrant wage workers' occupational attainment compares to that of nationals showing all the categories described above. In the sample of HICs covered in the report, the share of men and women migrant wage workers with jobs in lower occupational categories (personal care and domestic workers, unskilled or low-skilled workers) is almost universally higher than the share of non-migrant wage workers with jobs in these categories, with few exceptions. On average, while 24.3 per cent and 18.7 per cent of migrant wage workers in the sample of HICs have low-skilled and unskilled jobs, respectively, only 19.6 per cent and 8.2 per cent of non-migrant wage workers have jobs in these respective categories. In countries where the data allows for the identification of personal care and domestic workers (Argentina, Australia, Chile, and the United States), migrant wage workers tend to predominantly have occupations in this category compared to non-migrant wage workers (19.3 per cent and 9.6 per cent, on average, respectively).

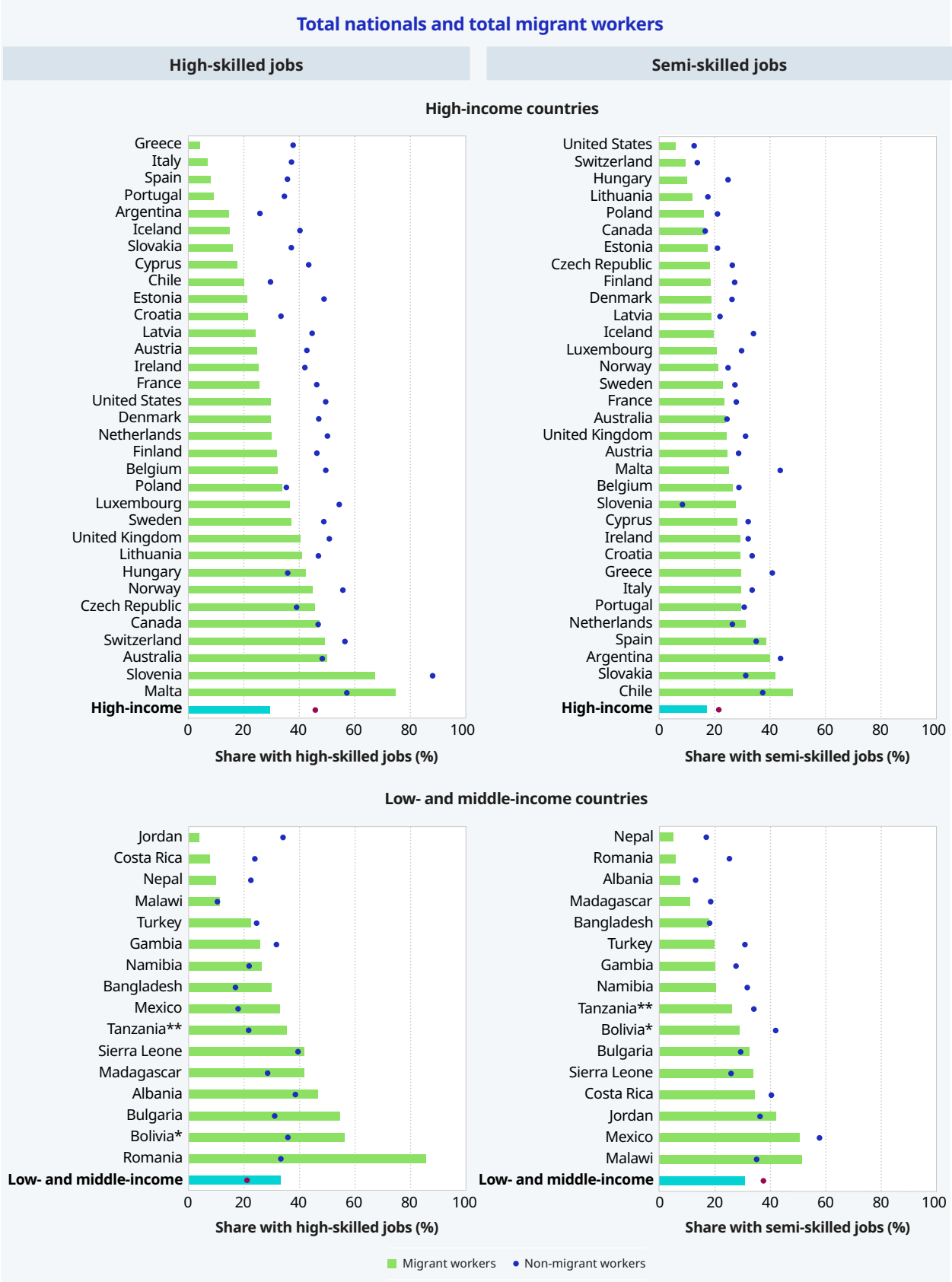
Rome, Italy, March 2019. Young migrants working as apprentice chef in an industrial restaurant kitchen in Rome. © shutterstock.com

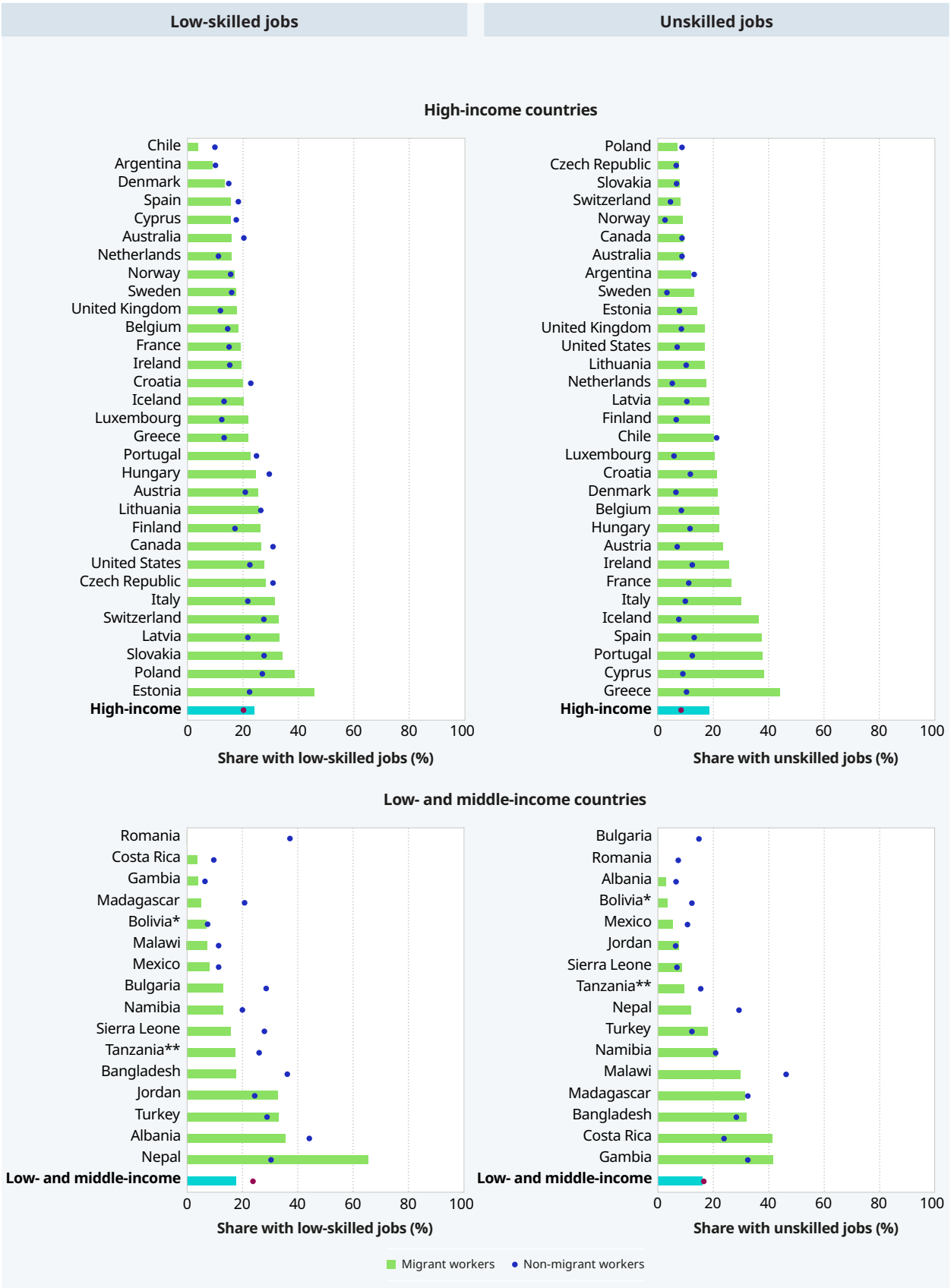
In contrast, the share of migrant wage workers with high-skilled jobs in the sample of HICs is almost everywhere lower than the share of non-migrant wage workers with high-skilled jobs in these countries (29.5 per cent and 45.0 per cent, on average, respectively), except in Australia, Canada, Czech Republic, Hungary, and Malta. For example, in the cases of the United Kingdom and United States, while respectively 40.4 per cent and 29.8 per cent of migrant wage workers have high-skilled jobs, 50.1 per cent and 48.8 per cent of non-migrant wage workers have high-skilled jobs in these two respective countries. Similarly, the share of migrant wage workers with semi-skilled jobs in HICs is lower than the corresponding share of non-migrant wage workers (17.2 per cent and 21.1 per cent, on average, respectively), except in Australia, Canada, Chile, Netherlands, Slovakia, Slovenia and Spain.

The story is different in the sample of LMICs, most of which are also countries of origin. With the exception of Costa Rica, the Gambia, Jordan, Nepal, and Turkey, the proportion of migrant workers with high-skilled jobs is higher than the proportion of nationals with similar positions (33.2 per cent and 20.5 per cent, on average, respectively). However, proportionately fewer migrant wage workers than nationals tend to have semi-skilled jobs (30.9 per cent and 36.6 per cent, respectively), low-skilled jobs (17.8 per cent and 22.5 per cent, respectively), or work as personal care or domestic workers (4.3 per cent and 5.6 per cent, respectively), with few exceptions. In terms of unskilled jobs, the share of wage workers is slightly higher on average for migrants than for non-migrants (16.2 per cent and 15.3 per cent, respectively).

41 Datasets from all 49 countries used in this report include a classification of occupations in accordance with the International Standard Classification of Occupations (ISCO), based on either the 1988 classification (ISCO-88) or its 2008 update (ISCO-08). The original classification separates individuals into several minor and major groups. The data sets provided for analysis further disaggregate the two-digit classification (i.e. the ten major groups) into a smaller number of groups (five to eight). In general, the following can be distinguished: legislators, senior officials, CEOs and other managerial positions, professional jobs, technical jobs, semi-skilled occupations, and unskilled occupations. In some instances, the disaggregation allows for the independent identification of the group "domestic and/or personal care workers" (ILO, 2008). CEOs cannot be identified independently but given that the top and bottom percentiles of wage earners are excluded from the analysis, the possibility that the presence of CEOs in the sample may distort the estimates is minimized.

▶ **Figure 5: Occupations of migrant workers and nationals, latest years**





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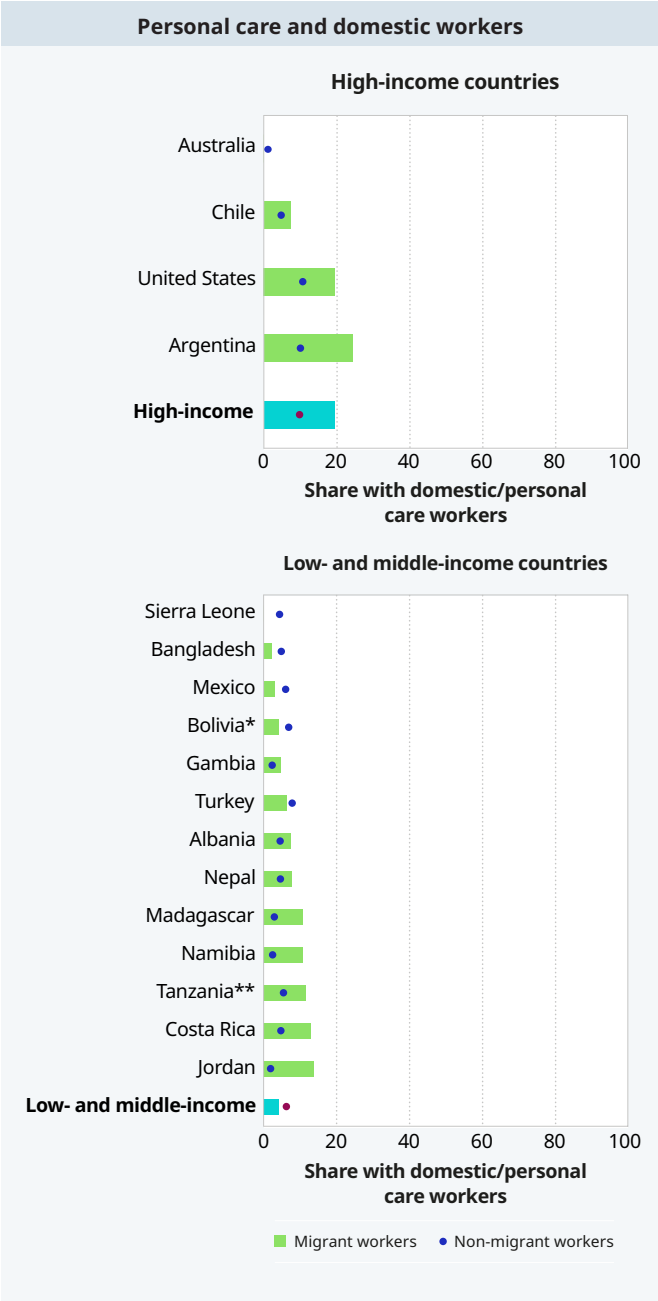


Note: High-income and low- and middle-income estimates are the weighted averages of the sample of high-income countries and low- and middle-income countries, respectively. Averages are weighted by the number of wage employees in each country. High-skilled jobs include, where possible, senior officials, CEOs and other managerial positions, professional jobs, technical and associate professional jobs. Semi-skilled jobs consist of clerical support workers, service and sales workers, and skilled agricultural, forestry and fishery workers. Low-skilled jobs comprise craft and related trades workers, plant and machine operators, and assemblers. Unskilled jobs include elementary occupations. Personal care and domestic workers are grouped separateyl in countries where independent identification of such occupations is possible. * the Plurinational State of Bolivia; ** the United Republic of Tanzania.

Source: ILO estimates based on survey data provided by national sources (see Appendix II).

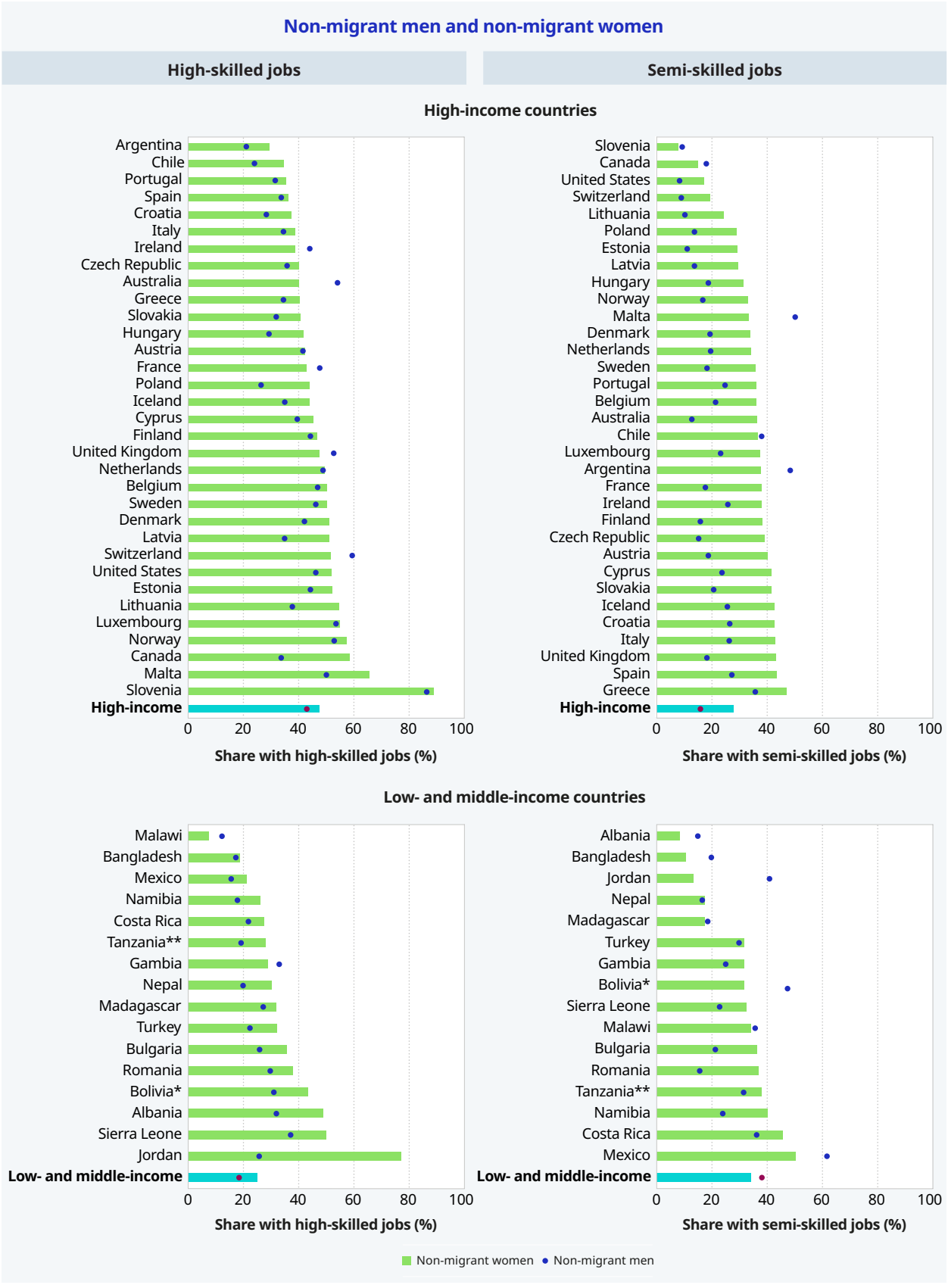
Women are over-represented in semi-skilled and personal care and domestic work jobs

Among the sample of HICs, more women wage workers tend to have semi-skilled occupations than their male counterparts, on average. This is true for both migrant and non-migrant women in the sample of HICs. Among non-migrants, while about 27.9 per cent of women wage workers have semi-skilled jobs, 14.8 per cent of men wage workers have semi-skilled jobs on average in HICs, with variations across countries (figure 6). Likewise, the share of migrant women wage workers who tend to have semi-skilled jobs is almost double the respective share of their male counterparts in the sample of HICs, on average (23.5 per cent and 12.6 per cent, respectively) (figure 7). In terms of high-skilled jobs, the shares of women and men migrant wage workers are similar (29.7 and 29.4 per cent, respectively). However, for non-migrants, the share of women wage workers in high-skilled jobs is somewhat higher than the respective share of their male counterparts, namely about 47.5 per cent compared to 42.8 per cent for men wage workers in those jobs.[42] In contrast, the share of men wage workers (migrant and non-migrant men alike) in the low-skilled job categories is much higher than the respective share of women in the sample of HICs (figures 6 and 7). These are job categories that are predominantly located in universally male dominated sectors such as construction, manufacturing, and mining and quarrying. For unskilled jobs, the share of men wage workers is only slightly higher (non-migrants) or almost similar (migrants) than the share of their women counterparts in those jobs. However, in terms of personal care and domestic work jobs, which is among the lowest paid, the share of women nationals who take these jobs is much higher than that of men nationals in almost all the countries where data is available (14.0 per cent and 5.6 per cent, on average, respectively). Among migrant wage workers, on the other hand, the share of migrant women in personal care and domestic work jobs is more than triple of the share of men working in those jobs (33.8 per cent and 9.9 per cent, respectively).

In the sample of LMICs, the share of wage workers with high-skilled jobs is higher among women nationals than among men nationals, on average

42 This should not be confused with the fact that fewer women than men hold senior management and leadership positions in most enterprises (see, e.g. ILO, 2015b, 2018a, 2019).

▶ **Figure 6: Occupations of nationals by sex, latest years**



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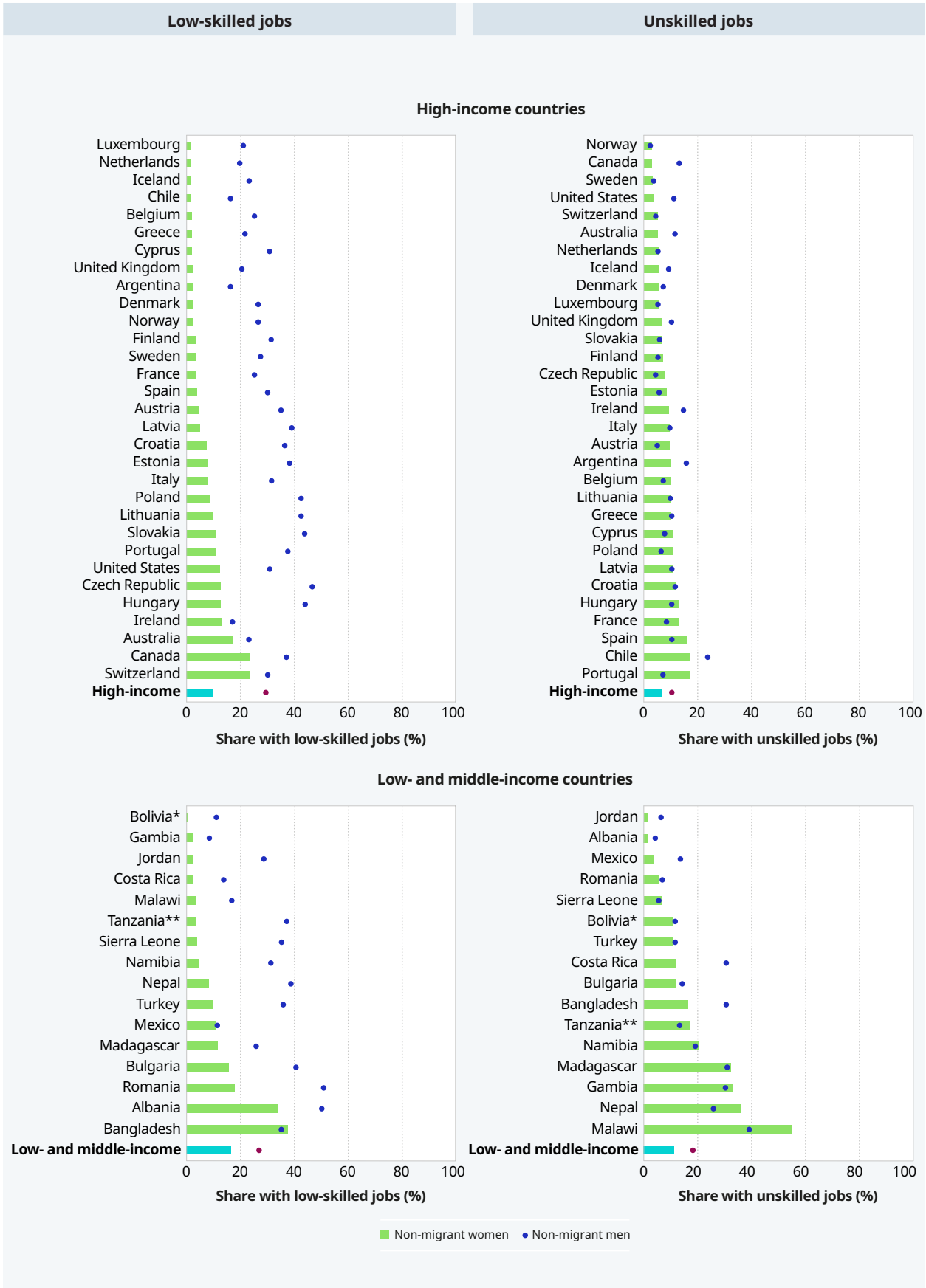
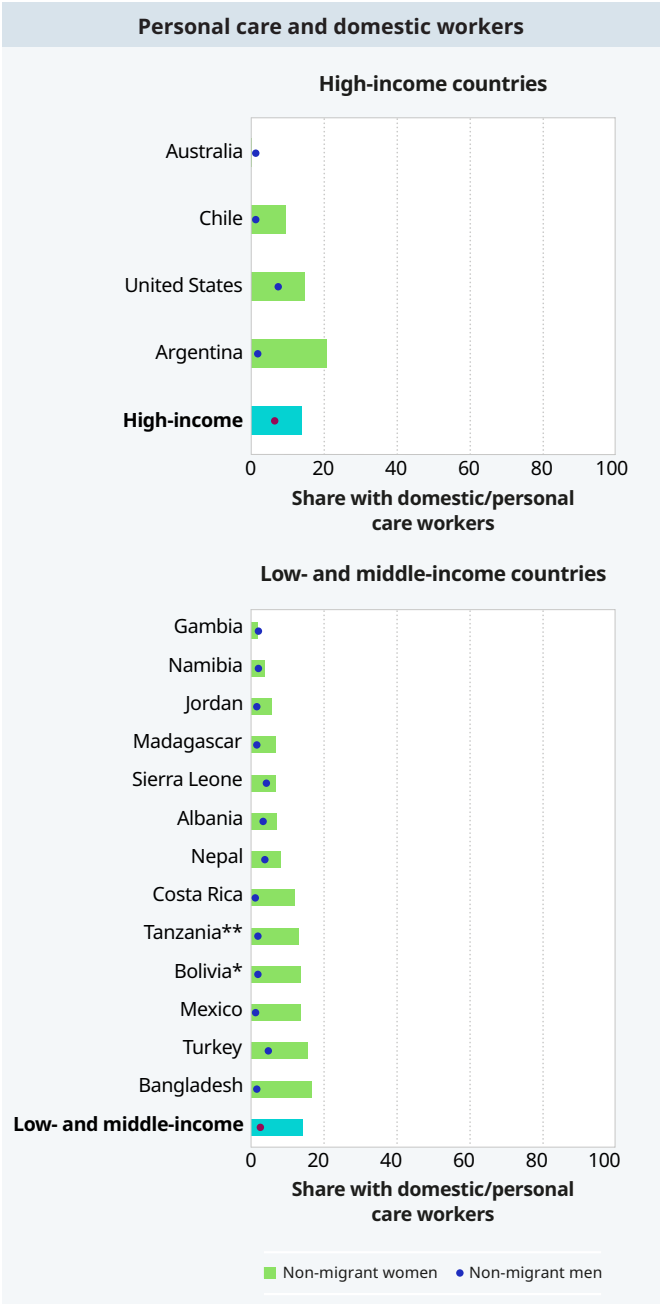




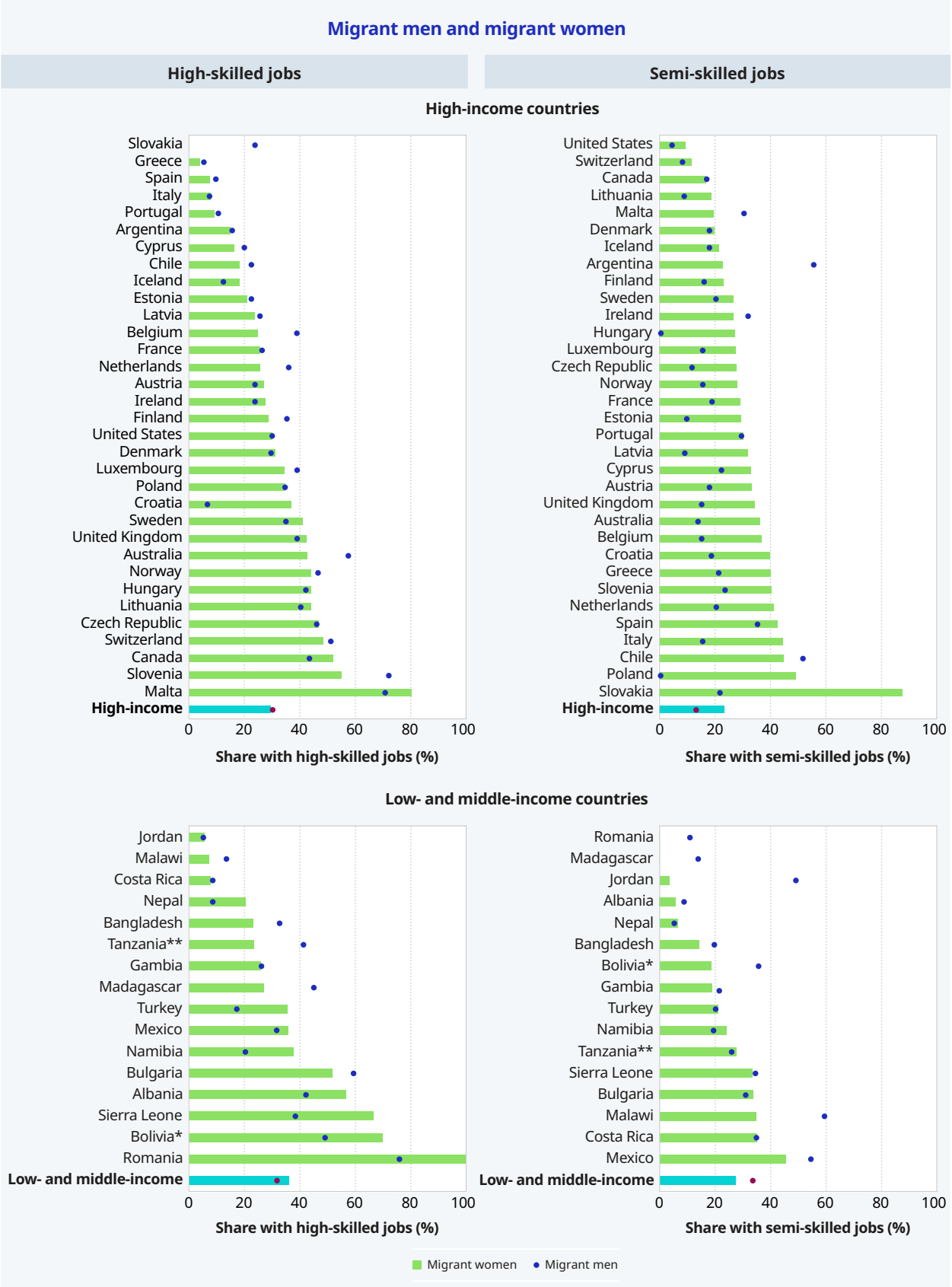
Note: High-income and low- and middle-income estimates are the weighted averages of the sample of high-income countries and low- and middle-income countries, respectively. Averages are weighted by the number of wage employees in each country. High-skilled jobs include, where possible, senior officials, CEOs and other managerial positions, professional jobs, technical and associate professional jobs. Semi-skilled jobs consist of clerical support workers, service and sales workers, and skilled agricultural, forestry and fishery workers. Low-skilled jobs comprise craft and related trades workers, plant and machine operators, and assemblers. Unskilled jobs include elementary occupations. Personal care and domestic workers are grouped separateyl in countries where independent identification of such occupations is possible. * the Plurinational State of Bolivia; ** the United Republic of Tanzania.

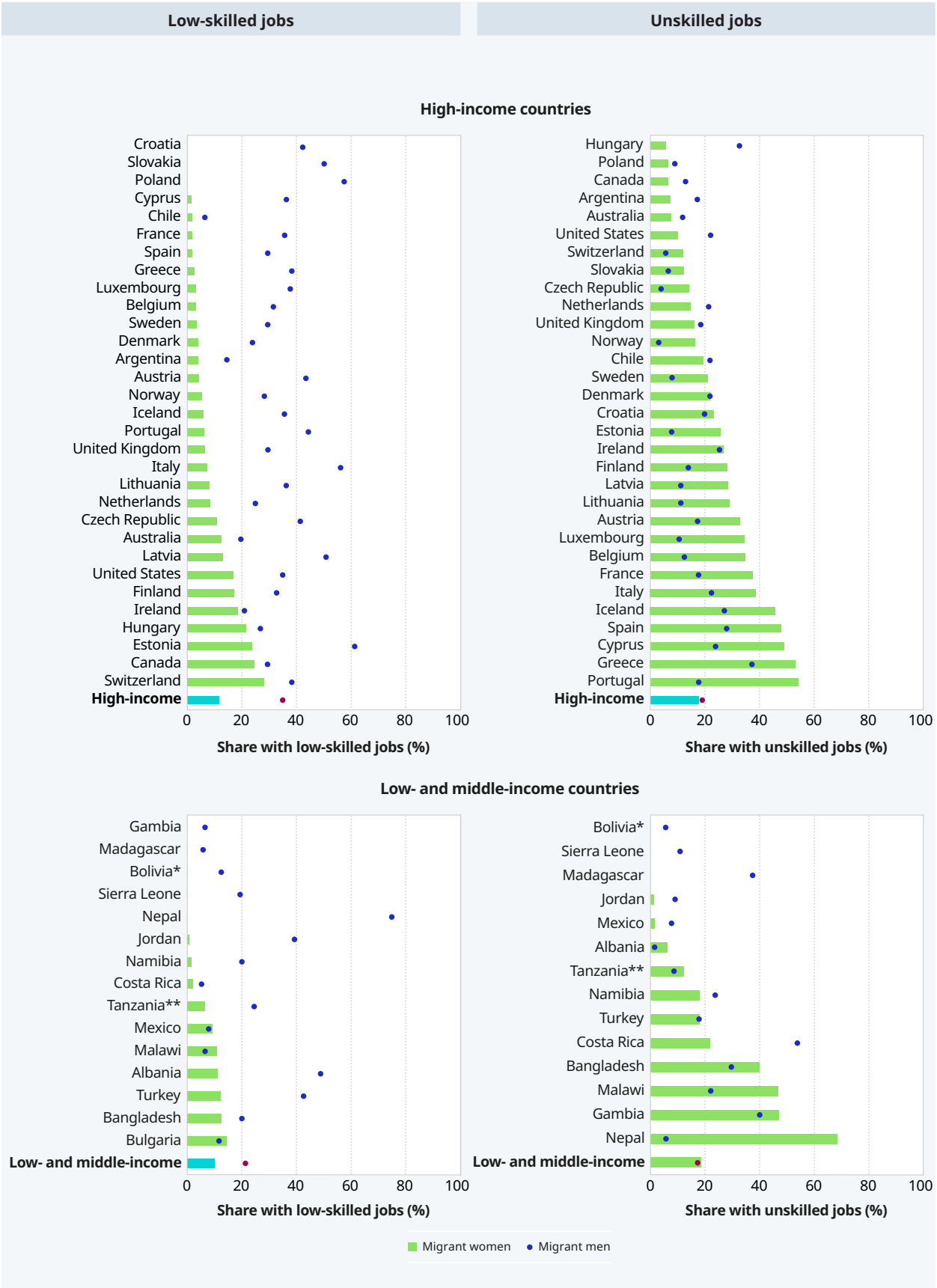
Source: ILO estimates based on survey data provided by national sources (see Appendix II).

(25.2 per cent and 18.0 per cent, respectively) (figure 6), and higher among migrant women than among migrant men, on average (36.3 per cent and 31.4 per cent, respectively). On average, the fraction of women among the total women wage workers is also higher than the corresponding share of men in terms of the unskilled job category (among migrant wage workers), and personal care and domestic work category (among both migrant and non-migrant wage workers). However, lower share of women than that of men have semi-skilled and low-skilled jobs (among both migrant and non-migrant wage workers).

Portrait of domestic worker Hellina Desta. Seven years ago, Hellina migrated from Ethiopia to work in Beirut, Lebanon. She has been working for her current employer for five years and plans to keep living and working in Lebanon. © shutterstock.com

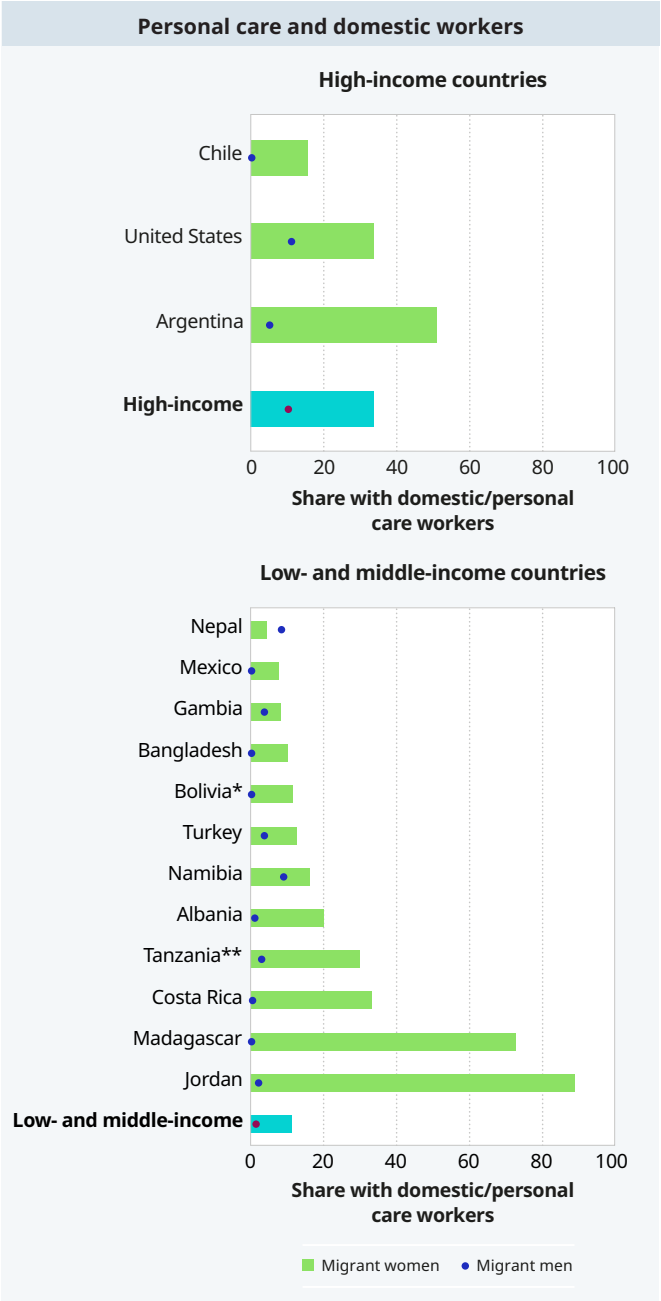
▶ **Figure 7: Occupations of migrant workers by sex, latest years**





(Figure 7 continued on page 46)

(Figure 7 continued from page 45)



Note: High-income and low- and middle-income estimates are the weighted averages of the sample of high-income countries and low- and middle-income countries, respectively. Averages are weighted by the number of wage employees in each country. High-skilled jobs include, where possible, senior officials, CEOs and other managerial positions, professional jobs, technical and associate professional jobs. Semi-skilled jobs consist of clerical support workers, service and sales workers, and skilled agricultural, forestry and fishery workers. Low-skilled jobs comprise craft and related trades workers, plant and machine operators, and assemblers. Unskilled jobs include elementary occupations. Personal care and domestic workers are grouped separateyl in countries where independent identification of such occupations is possible. * the Plurinational State of Bolivia; ** the United Republic of Tanzania.

Source: ILO estimates based on survey data provided by national sources (see Appendix II).

Association between educational and occupational attainments: Migrant workers vs. nationals

Could it be that the occupational attainment gaps observed between migrant and non-migrant workers, especially in HICs, exist because of different educational composition of migrant workers and nationals? Figure 8 illustrates that very often migrant workers are unable to attain the same types of job as their national counterparts, even when they have the similar levels of education. It appears from the figure that, in the sample of HICs, migrant workers tend to receive less returns to their educational qualifications relative to the qualifications of nationals. This phenomenon reflects labour underutilization and skills mismatch among migrant workers in HICs[43]. Migrant workers in HICs are typically likely to be affected by skills mismatch, in particular, mismatch by level of education, which reduces their potential contribution to businesses and economies of their countries of destination. On the other hand, migrant workers in LMICs, on average tend to receive better returns to their educational qualifications, which is consistent with the notion that migrant workers from the Global North receive a premium for their labour market attributes and characteristics in the Global South.

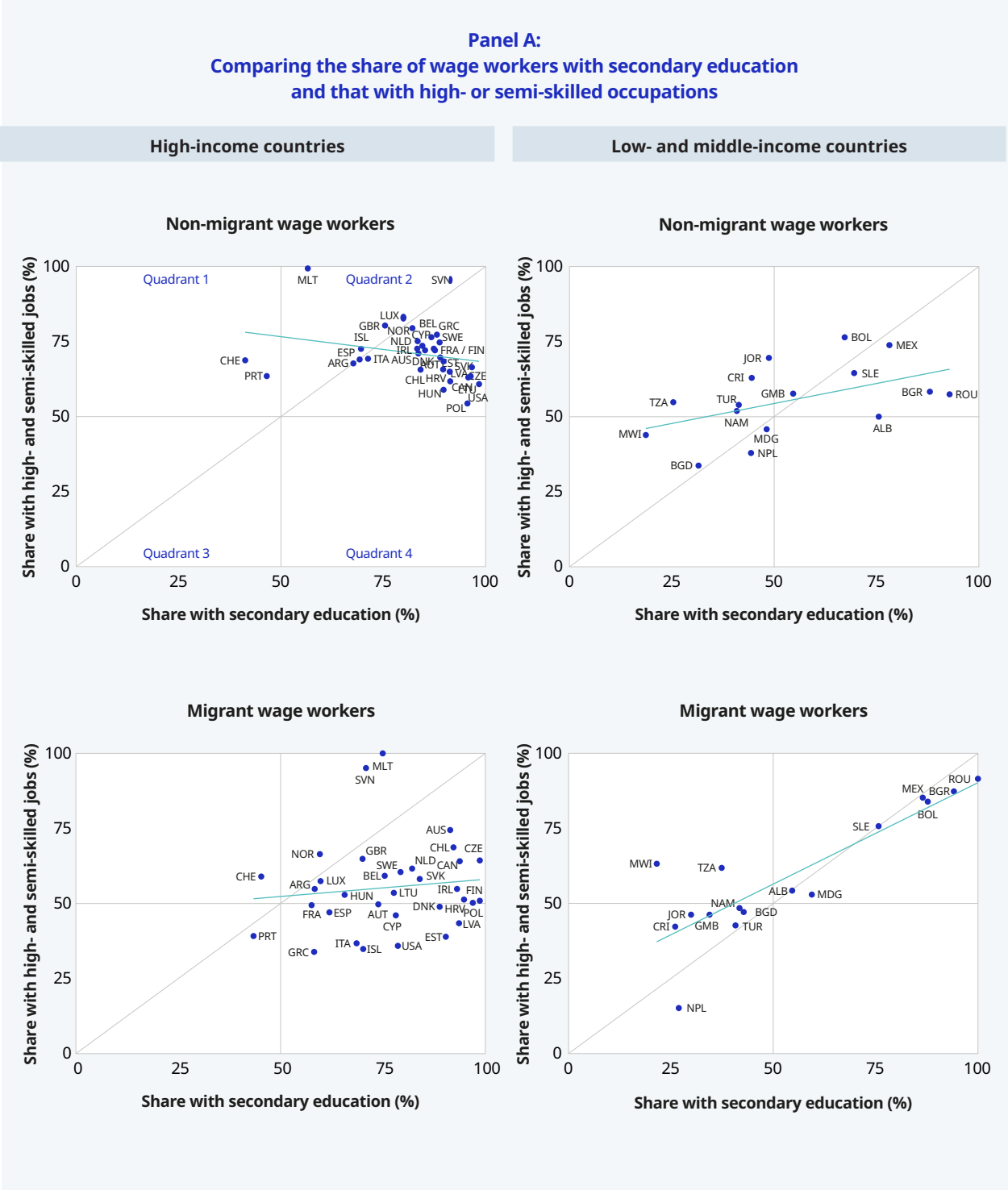
The section below explores this association between educational and occupational attainments by looking at the proportions of migrant wage workers and nationals with secondary school education (Panel A) and the proportion with university education (Panel B) against the proportions with high- and semi-skilled occupations.[44]

To better understand the illustration in figure 8, each chart is divided into four quadrants. Quadrant 1 indicates a situation whereby the proportion of workers with higher education is lower than the proportion of workers with high- and semi-skilled jobs within a country. Quadrants 2 and 3 show the cases where the proportion of workers with higher education is similar to the proportion of workers with high- and semi-skilled jobs. Quadrant 4 indicates a scenario where the proportion of workers with higher education outweighs the proportion with high- and semi-skilled jobs. Quadrants 2 and 3 represent "fair" scenarios, whereas Quadrants 1 and 4 represent "unfair"

43 See Sparreboom and Tarvid (2017 and ILO, 2018g).

44 High skilled jobs include senior officials and other managerial positions, professional jobs, technical and associate professional jobs while semi-skilled jobs consist of clerical support workers, service and sales workers, and skilled agricultural, forestry and fishery workers.

▶ **Figure 8. The association between education and occupational attainment of migrant and non-migrant workers, latest years**



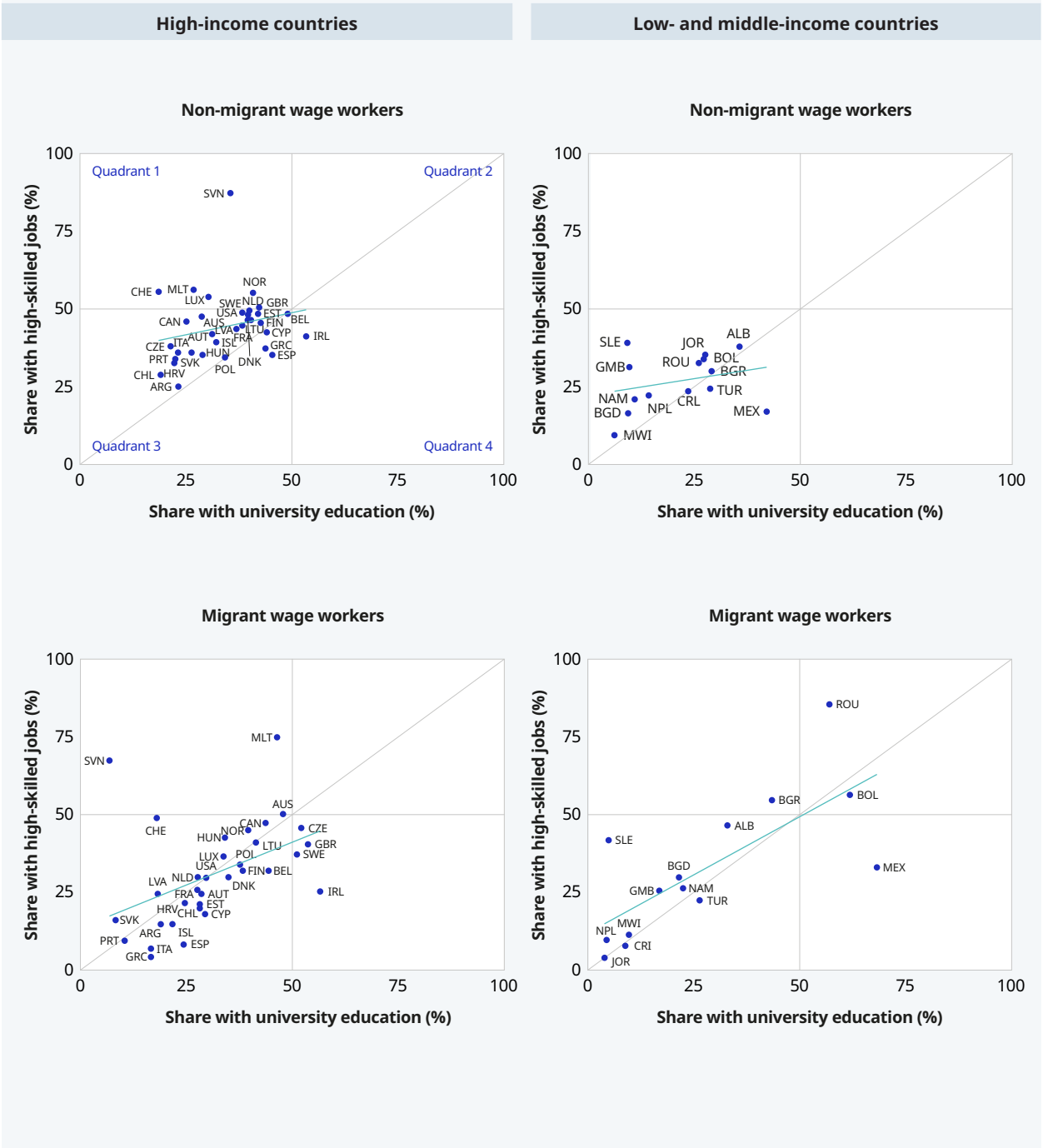
Note: The 45-degree line is a line of equality. Points on this line indicate that the probability of attaining higher education equals the probability of attaining a high- or semi-skilled job. The horizontal and vertical lines divide the plot into four quadrants. The fitted line on the scattered dots shows the direction of the correlation between education and occupational attainment. High-skilled jobs include senior officials and other managerial positions, professional jobs, technical and associate professional jobs while semi-skilled jobs consist of clerical support workers, service and sales workers, and skilled agricultural, forestry and fishery workers.

Source: ILO estimates based on survey data provided by national sources (see Appendix II).

(Figure 8 continued on page 48)

(Figure 8 continued from page 47)

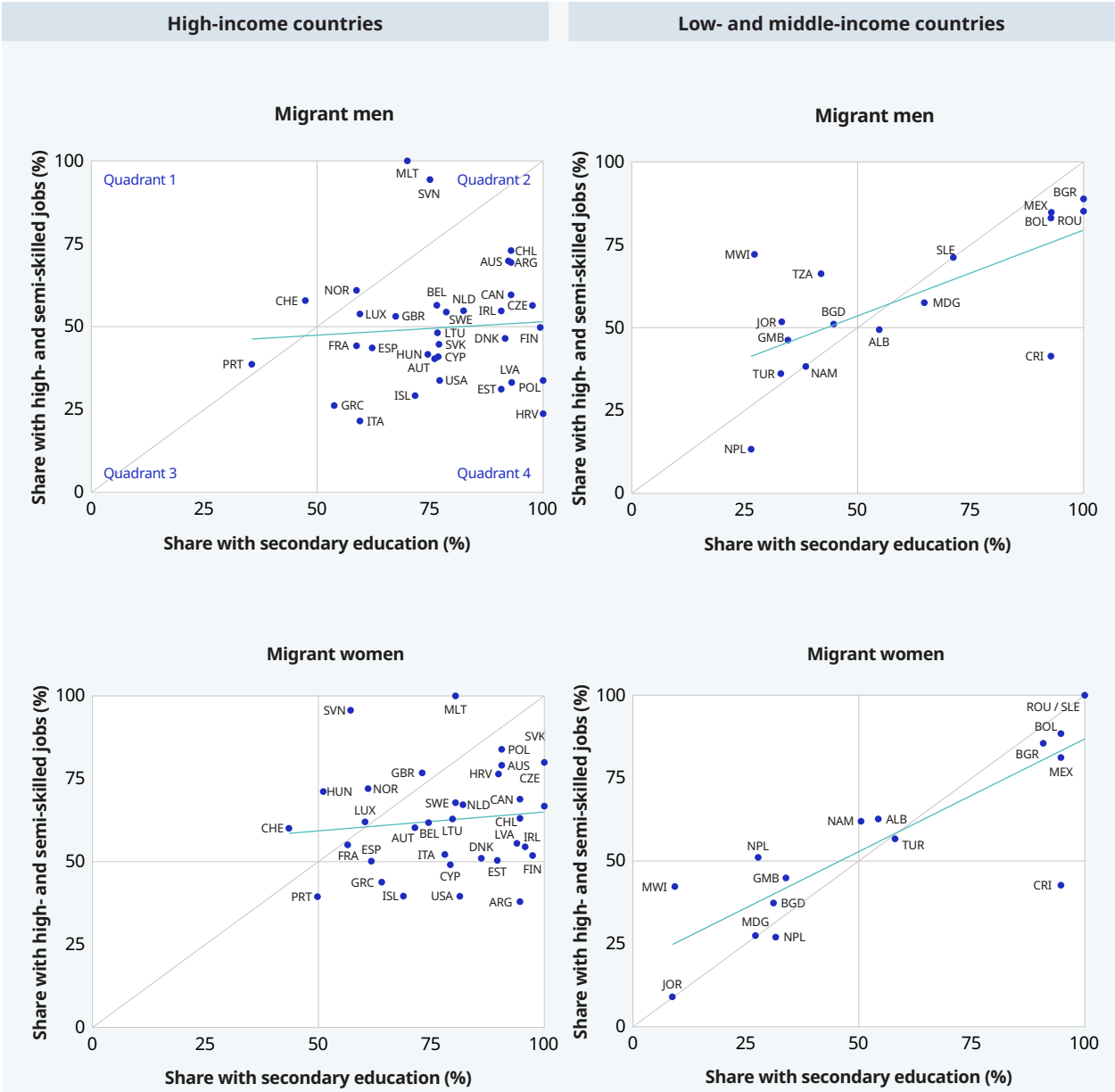
Panel B:
Comparing the share of wage workers with university education and that with high-skilled occupations



Note: The 45-degree line is a line of equality. Points on this line indicate that the probability of attaining higher education equals the probability of attaining a high- or semi-skilled job. The horizontal and vertical lines divide the plot into four quadrants. The fitted line on the scattered dots shows the direction of the correlation between education and occupational attainment. High-skilled jobs include senior officials and other managerial positions, professional jobs, technical and associate professional jobs.

Source: ILO estimates based on survey data provided by national sources (see Appendix II).

▶ **Figure 9. The association between education and occupational attainment of migrant workers by sex, latest years**



Note: The 45-degree line is a line of equality. Points on this line indicate that the probability of attaining higher education equals the probability of attaining a high- or semi-skilled job. The horizontal and vertical lines divide the plot into four quadrants. The fitted line on the scattered dots shows the direction of the correlation between education and occupational attainment. High-skilled jobs include senior officials and other managerial positions, professional jobs, technical and associate professional jobs while semi-skilled jobs consist of clerical support workers, service and sales workers, and skilled agricultural, forestry and fishery workers.

Source: ILO estimates based on survey data provided by national sources (see Appendix II).

scenarios. The 45-degree line is a line of equality, with points on this line indicating that the probability of having a higher education equals the probability of attaining a high- and/or semi-skilled job.

In Panel A, nationals across the sample of HICs are located in the second quadrant, implying that the proportion of nationals with higher education is similar to the proportion of nationals with jobs in higher occupational categories. However, migrant workers tend to be located in the fourth quadrant in some HICs. In Panel B, the proportion of migrant workers in the sample of HICs that attain high skilled occupations is much lower than the nationals of these countries, although the proportion with university education is similar for both groups. This illustrates that, given similar levels of education, the probability of attaining high- or semi-skilled occupation is much lower for migrant workers than for nationals. This means that higher educated migrant workers in HICs are less likely to attain jobs in higher occupational categories relative to non-migrant workers. For example, in the United States and Finland, while the share of migrant workers with secondary school education is 78.7 per cent and 98.6 per cent, respectively, the shares of migrant workers with high- or semi-skilled jobs are only 35.8 per cent and 50.6 per cent, respectively. Among nationals, however, the proportion with high- or semi-skilled jobs is 61.0 per cent (in the United States) and 72.4 per cent (in Finland) though their respective proportions with secondary school education are not too different from that of migrant workers.

In the sample of LMICs, the story is more positive for migrant workers, with higher educated migrant workers more likely to attain high- or semi-skilled occupations relative to nationals of these countries. It is also the case that migrant workers in middle-income countries such as the Plurinational State of Bolivia, Mexico, and Romania are more likely than nationals to have university education and they get rewarded accordingly (Panel B).

A similar pattern of how migrant workers' educational attainment is associated with their occupational attainment is exhibited in figure 9, showing the pattern separately for migrant men and migrant women using the share of wage workers with secondary school education. Although the pattern in figure 9 is similar to the overall pattern for migrant workers in figure 8, it appears that migrant men and migrant women in the sample of HICs face somewhat different treatment with respect to their occupational attainments given similar levels of education. Migrant men are located in the fourth quadrant in more countries than migrant women are, even though their educational attainments are similar. In other words, given similar levels of education, migrant men tend to have fewer high- and semi-skilled jobs than migrant women, in particular, in the sample of HICs. This phenomenon is consistent with estimates in figure 7, where the share of migrant women workers with semi-skilled jobs far outweighs the share of migrant men in those jobs.

The observed association between educational and occupational attainment, especially in HICs, is consistent with the literature that partly attribute observed gaps in labour market outcomes of migrant workers and nationals to differences in returns to foreign-acquired education (see Barrett, McGuinness and O'Brien, 2012). Not only are employers in HICs possibly reluctant to hire migrant workers with foreign education, but also, they may be reluctant to hire migrant workers in general into high- or semi-skilled jobs, as many migrants update and pursue higher education in their destination countries (see Faini, 2005; Mahroum, 2000).

2.5.4. Differences between wage workers by economic sector

Migrant wage workers are over-represented in the primary and secondary sectors, particularly in HICs

When looking at the distribution of wage employees by industrial sector, the report finds that, on average, migrant wage workers, compared to nationals, are disproportionately represented in the primary sector – agriculture, fishing and forestry – in the sample of HICs, while in the sample of LMICs, the proportions of both groups are similar. In the sample of HICs, more migrant wage workers than nationals take up secondary sector jobs (mining and quarry; manufacturing; electricity, gas and water; and construction), while in the sample of LMICs, they (migrant wage workers) tend to take up fewer secondary sector jobs, on average, than nationals. However, while there is a tendency for fewer migrant wage workers to be employed in the tertiary sector (i.e. services) in HICs, they tend to take up more tertiary sector jobs than nationals in the sample of LMICs. In terms of distribution by gender, migrant men wage workers tend to work more in the primary and secondary sectors in the sample of HICs and the tertiary sector in the sample of LMICs than their national counterparts. Similarly, migrant women wage workers tend to work more

in the primary and secondary sectors in the sample of HICs and the primary and tertiary sectors in the sample of LMICs than their national counterparts.

The section below explores the types of industrial sectors in which wage employees take their main occupations by comparing migrant workers and nationals. The industrial categories for almost all countries follow the classifications given by the International Standard Industrial Classification of All Economic Activities (ISIC) (UN, 2008). This report groups industries into three main sectors: primary, secondary, and tertiary.[45]

Figure 10 presents the proportion of wage employees in each industrial sector by comparing migrant and non-migrant wage workers. The charts show that, on average, migrant workers, compared to nationals, are disproportionately represented in the primary sector in the sample of HICs than non-migrant workers (2.5 per cent and 1.5 per cent, respectively), while in the sample of LMICs, the proportions of both groups are similar (10.6 per cent and 10.3 per cent, respectively). However, the overall proportions of both migrant workers and nationals in the primary sector is higher in LMICs than in HICs, with some variation within income groups. For example, while about 11.6 per cent of migrant wage workers in Greece work in the primary sector, only about 1.2 per cent of nationals work in this sector. On the other hand, in Chile, only about 2.9 per cent of migrant wage workers take up primary sector jobs but more than 8.4 per cent of nationals work in this sector.

Similarly to the primary sector, more migrant wage workers than nationals in HICs take up secondary sector jobs with about 26.8 per cent of migrant wage workers employed in this sector, compared to 20.8 per cent of non-migrant wage workers. In contrast, proportionately fewer migrant wage workers in the sample of LMICs are employed in the secondary sector compared to nationals of these countries (24.9 per cent and 32.6 per cent, respectively), with notable variations across countries and within income groups.

The tertiary sector, on the other hand, absorbs more wage employees than the primary and secondary sectors combined in both samples of countries (HICs and LMICs). While there is a tendency for fewer migrant workers to be employed in the tertiary sector than nationals in HICs (70.7 per cent and 77.7 per cent, respectively), they tend to take up more tertiary sector jobs than nationals in the sample of LMICs, with 64.6 per cent of migrant workers in LMICs working in the tertiary sector compared to 57.1 per cent of nationals, on average.

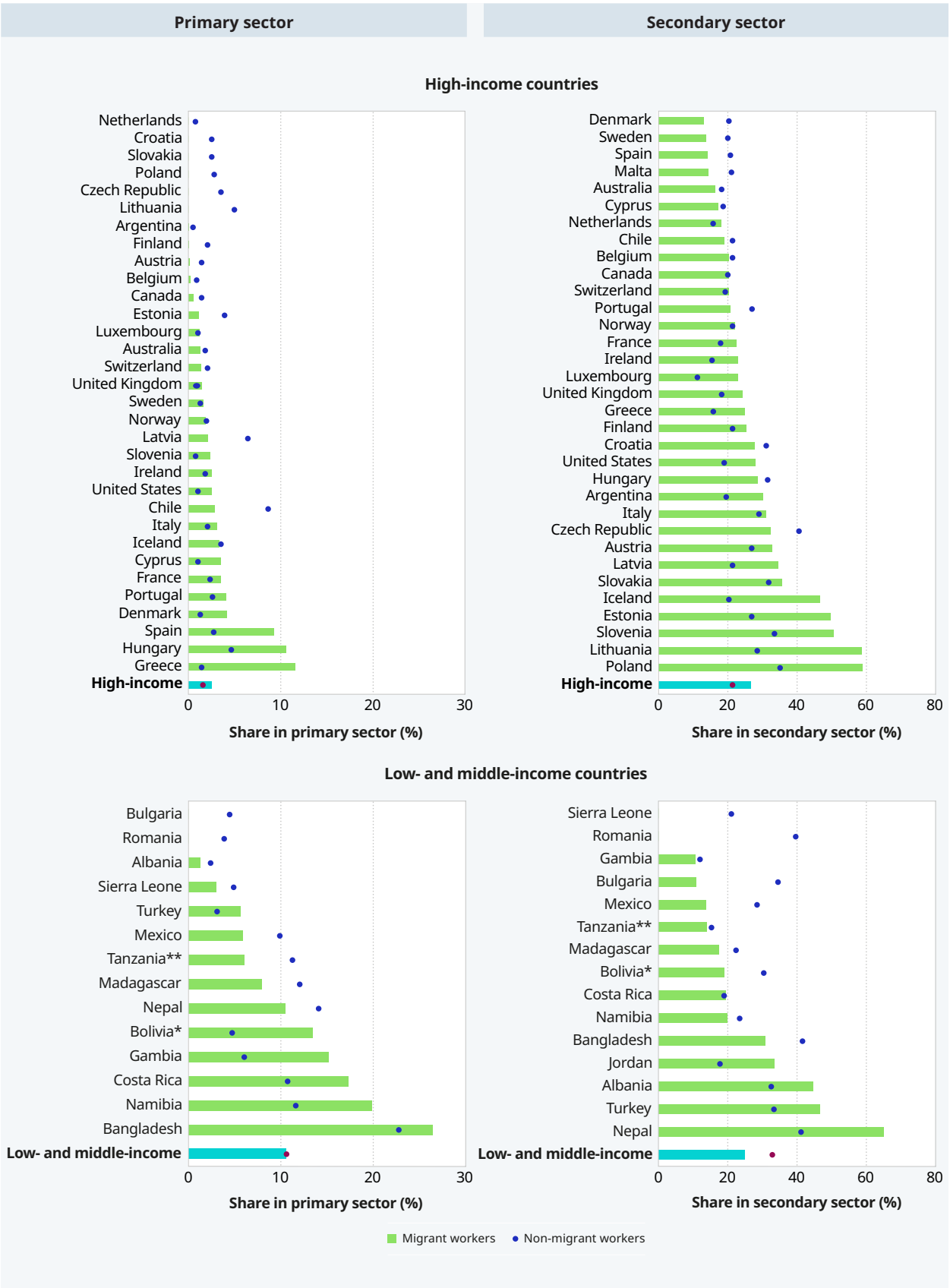
Salinas, California - USA; July 1, 2015: Agricultural seasonal migrant farm workers harvest and package Romaine lettuce in the fields of Salinas Valley of central California. © shutterstock.com

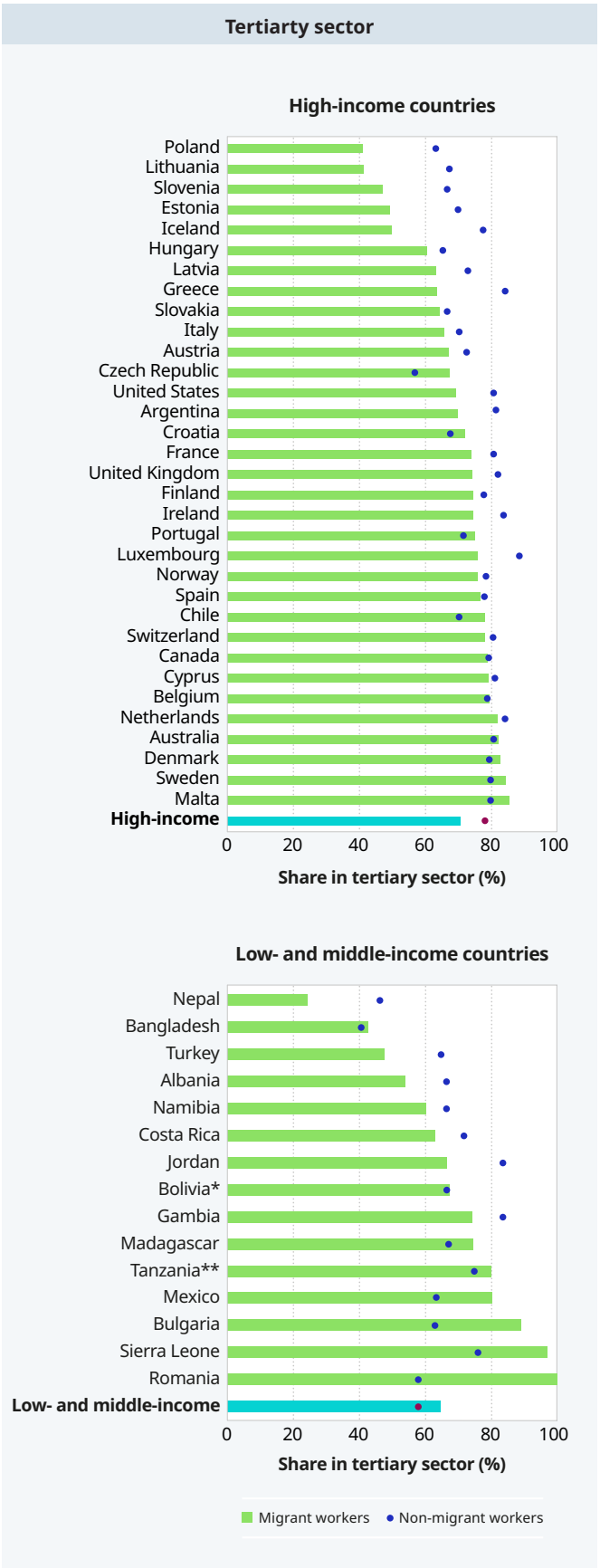
Figure A-2 in Appendix IV presents a similar pattern of the distribution of migrant and non-migrant wage workers by industrial sector, distinguishing between men and women. The share of migrant men employed in the primary and secondary sectors is higher than the corresponding share of non-migrant men in the sample of HICs (3.4 per cent and 2.1 per cent, respectively in the primary sector, and 38.1 per cent and 31.1 per cent, respectively in the secondary sector). Similarly, on average, proportionately more migrant women than non-migrant women are employed in the primary (1.5 per cent and 0.8 per cent, respectively) and secondary (10.9 per cent and 9.7 per cent, respectively) sectors in HICs. However, on average proportionately fewer migrant men and migrant women attain employment in the tertiary sector compared to their national counterparts in HICs (58.5 per cent and 66.8 per cent, respectively for migrant men and non-migrant men, and 87.5 per cent and 89.5 per cent, respectively for migrant women and non-migrant women).

In the sample of LMICs, migrant men are less represented in the primary and secondary sectors compared to non-migrant men, on average, but over-represented in the tertiary sector. Migrant women in the sample of LMICs, on the other hand, are over-represented in the primary and tertiary sectors compared to non-migrant women but less represented in the secondary sector.

45 The primary industrial sector comprises agriculture, fishing and forestry. The secondary sector consists of mining and quarry; manufacturing; electricity, gas and water; and construction. The tertiary sector includes all services and industries not captured under the primary and secondary sectors.

▶ **Figure 10: The distribution of migrant and non-migrant wage workers by industrial sector, latest years**





2.5.5. Contractual conditions of wage workers

This section examines the contractual arrangements under which migrant and non-migrant wage workers are employed. In countries covered in the report, most wage employee jobs are based on written contracts. However, significant variations exist across countries in institutional arrangements regarding the duration of the contract and working time. Taking account of these differences, the notion of a "temporary or limited-time job" is defined as a fixed-term contract or a pre-determined end date of work (usually within one year) including seasonal, daily, and non-contractual occasional workers. The notion of "permanent job", on the other hand, is defined as a work contract of unlimited duration or no pre-determined termination date.

Working time is derived from declared hours of work per week, similar to the ILO's *Global Wage Report 2018/19*, using the OECD definition of part-time workers as those who declare their usual working time per week as 30 hours or fewer (van Bastelaer, Lemaître and Marianna, 1997).

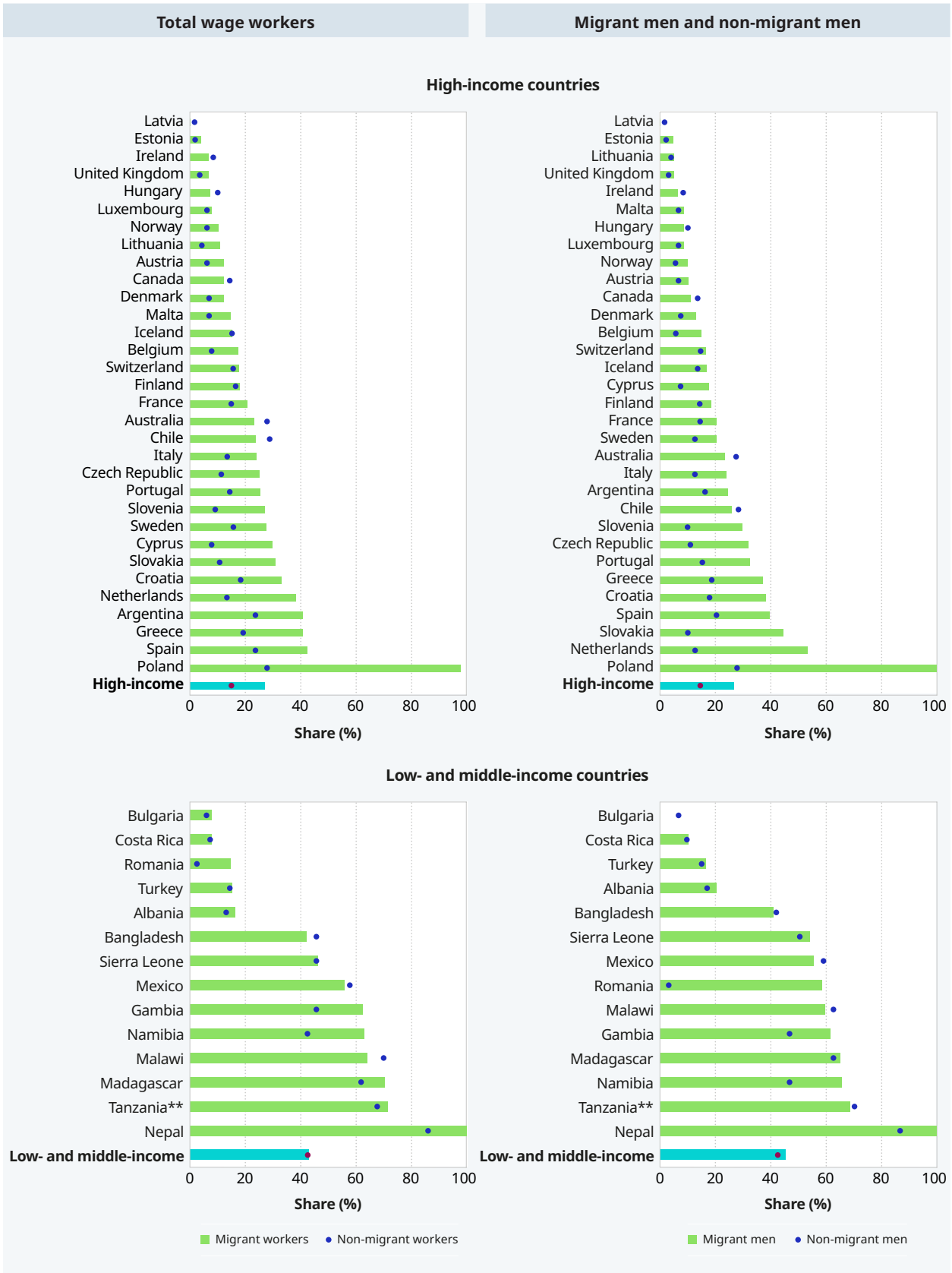
Migrant wage workers are more likely to work under temporary contracts than non-migrant wage workers in both HICs and LMICs

Figure 11 shows that migrant wage workers in both HICs and LMICs are more likely than nationals to work under temporary contracts, on average (27.0 per cent and 14.9 per cent, respectively in the sample of HICs, and 42.9 per cent and 41.7 per cent, respectively in the sample of LMICs), with few exceptions including Australia, Canada, Chile, Hungary, Ireland, and Latvia (among the sample of HICs); and Bangladesh, Malawi, and Mexico (among the sample of LMICs), and variations across countries.

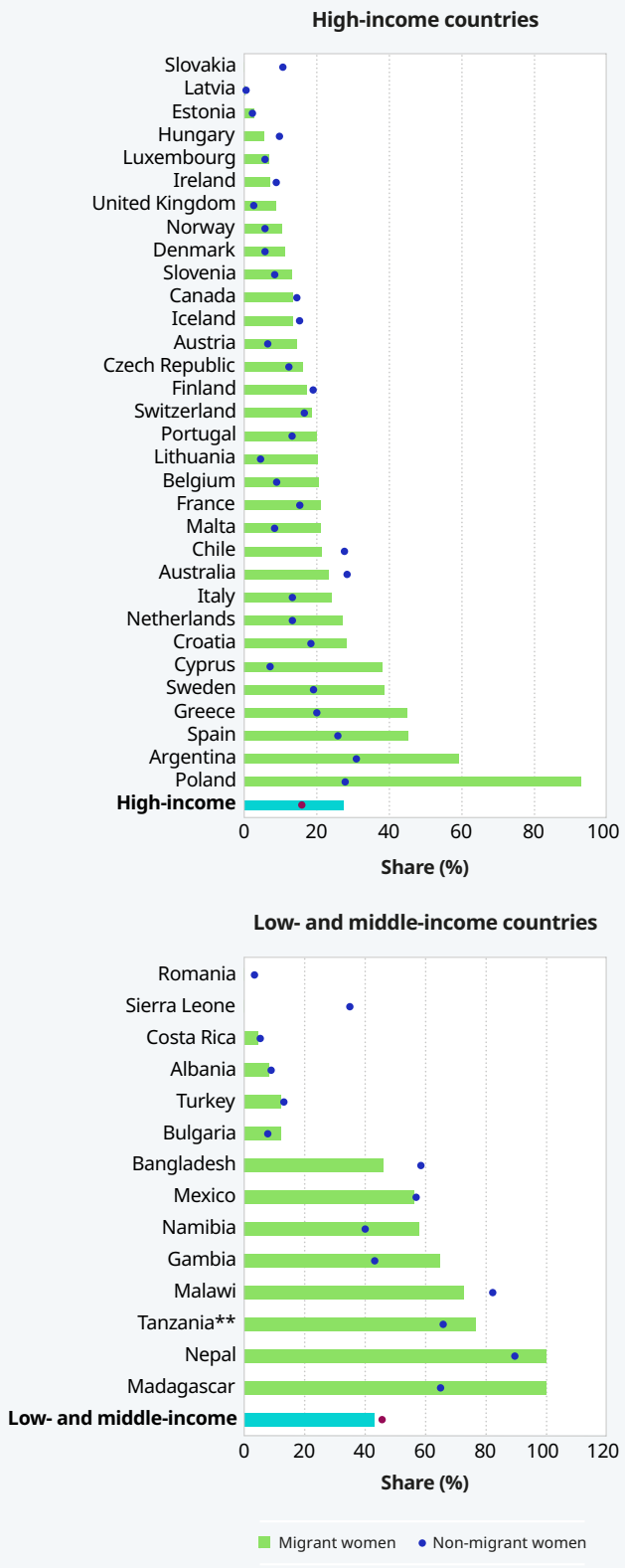
Note (figure 10): High-income and low- and middle-income estimates are the weighted averages of the sample of high-income countries and low- and middle-income countries, respectively. Averages are weighted by the number of wage employees in each country. Primary sector comprises Agriculture, Fishing and Forestry. Secondary sector consists of Mining and Quarry; Manufacturing; Electricity, Gas and Water; and Construction. Tertiary sector includes all services and industries not captured under the Primary and Secondary sectors. Figure A-2 in Appendix IV shows this figure in terms of men and women. * the Plurinational State of Bolivia; ** the United Republic of Tanzania.

Source: ILO estimates based on survey data provided by national sources (see Appendix II).

▶ **Figure 11: The share of wage employees with temporary work contracts by sex, latest years**



Migrant women and non-migrant women



For example, in Poland, while only about 27.3 per cent of nationals work under temporary contracts, about 97.8 per cent of migrant wage workers have temporary work contracts. On the other hand, in Canada, about 13.7 per cent of nationals work under temporary contracts whereas the corresponding fraction of migrant wage workers is about 12.2 per cent. These finding are consistent with previous ILO research that shows that a greater percentage of migrant workers find themselves in non-standard jobs, including under temporary work contracts around the world (ILO, 2016b).

Figure 11 also shows that, both men and women migrant wage workers in the sample of HICs are more likely than men and women nationals to work under temporary contracts (26.7 per cent and 14.0 per cent of migrant men and non-migrant men, respectively; and 27.4 per cent and 15.8 per cent of migrant women and non-migrant women, respectively). However, as compared to their male counterparts, both migrant women and non-migrant women are more likely to work under temporary contracts. In the sample of LMICs, on the other hand, the reports finds that migrant men wage workers, compared to non-migrant men, tend to work more under temporary contracts, on average (45.4 per cent and 41.1 per cent, respectively), while the corresponding proportions of migrant women and non-migrant women are close (43.0 per cent and 44.0 per cent, respectively).

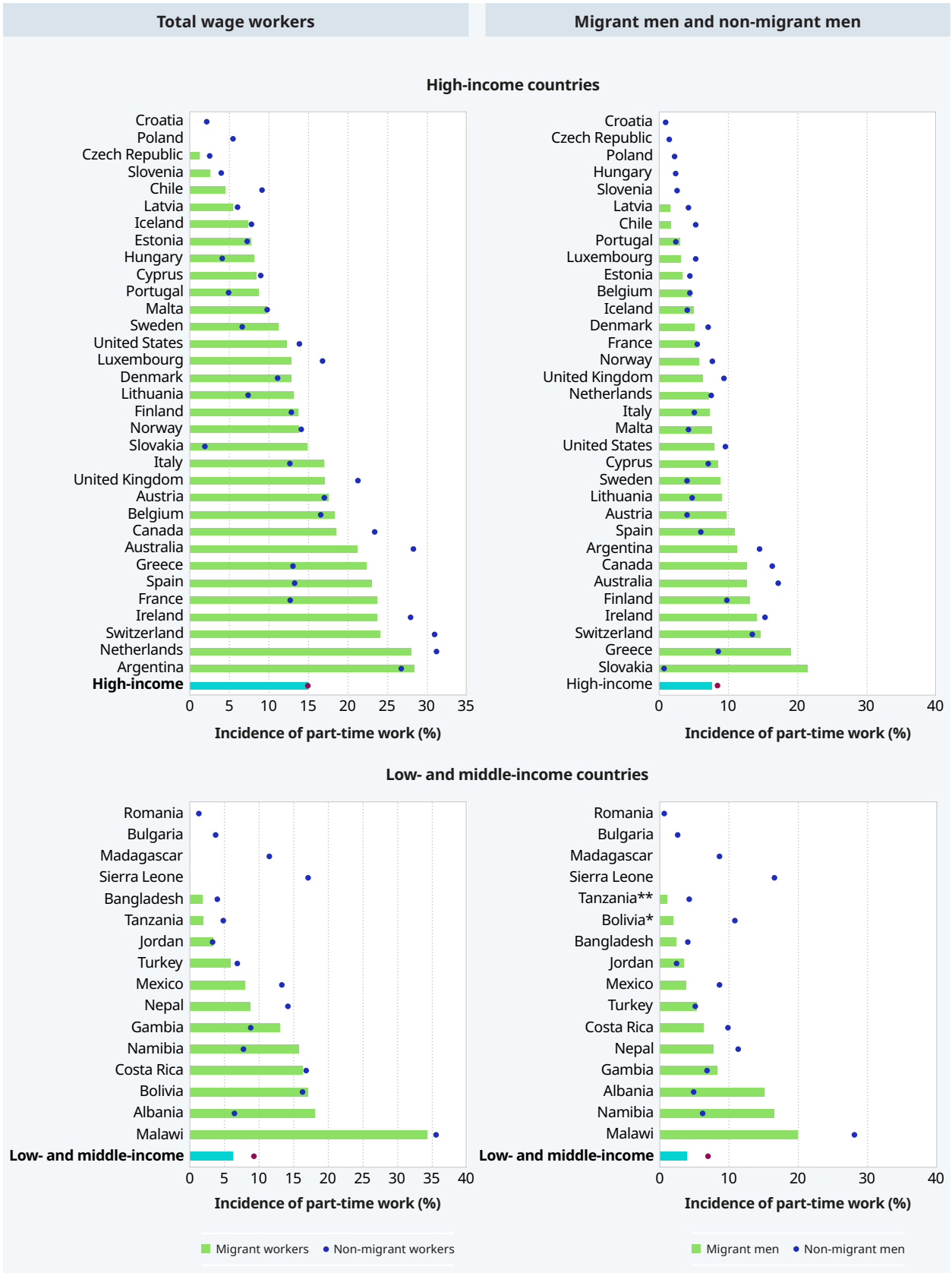
Incidence of part-time work contract is higher among migrant workers than non-migrant workers in HICs but lower than non-migrant workers in LMICs

Figure 12 shows that migrant workers have slightly higher part-time incidence rates than non-migrant workers in the sample of HICs, on average (15.0 per cent and 14.6 per cent, respectively), primarily due to the significantly higher incidence of part-time

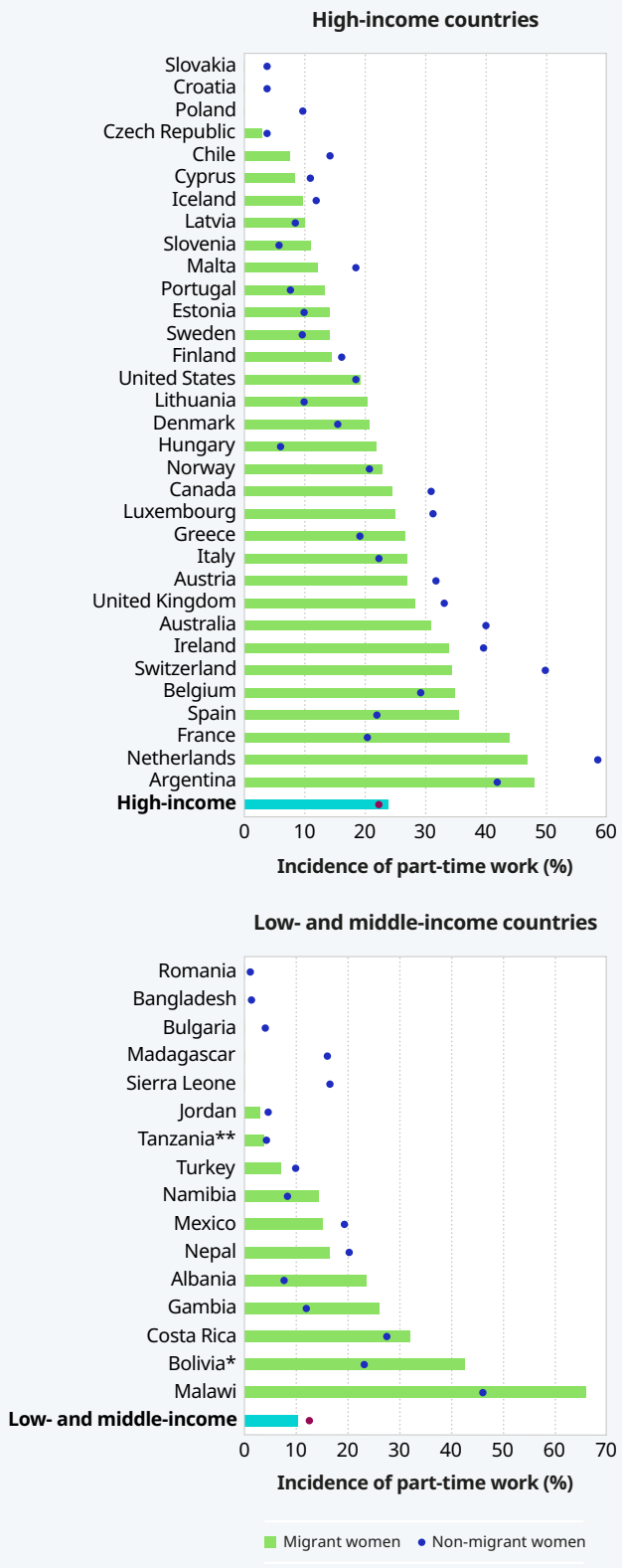
Note (figure 11): High-income and low- and middle-income estimates are the weighted averages of the sample of high-income countries and low- and middle-income countries, respectively. Averages are weighted by the number of wage employees in each country. Temporary work contract comprises employees with a fixed-term contracts or a pre-determined end date of work including seasonal, daily, and non-contractual occasional workers. Permanent work contract consists of employees with a work contract of unlimited duration or no pre-determined termination date. ** the United Republic of Tanzania.

Source: ILO estimates based on survey data provided by national sources (see Appendix II).

▶ **Figure 12: The share of wage employees with temporary work contracts by sex, latest years**



Migrant women and non-migrant women



work contracts among migrant women compared to non-migrant women. In most countries, women and men (migrant workers and nationals alike) differ significantly with respect to working time. Specifically, part-time work is more prevalent among women than men in most countries, which is consistent with previous findings in the literature (see, e.g., Fagan et al., 2014; ILO, 2016c and ILO, 2019b). While part-time incidence rates of migrant men is slightly lower than that of non-migrant men in the sample of HICs (7.7 per cent and 8.3 per cent, respectively), an average gap of 2.2 percentage points exists between the part-time rates of migrant women and non-migrant women in HICs (23.8 per cent and 21.6 per cent, respectively), although the scale of the difference varies widely across countries.

In the sample of LMICs, incidence of part-time work tend to be lower among migrant workers than among non-migrant workers, on average (6.2 per cent and 8.7 per cent, respectively), with notable variations across countries. Both migrant men and migrant women in LMICs tend to have lower part-time incidence rates than their national counterparts, on average (3.9 per cent and 6.5 per cent of migrant men and non-migrant men, respectively, and 10.3 per cent and 12.0 per cent of migrant women and non-migrant women, respectively), although part-time work is more prevalent among women than among men in general.

Note (figure 12): High-income and low- and middle-income estimates are the weighted averages of the sample of high-income countries and low- and middle-income countries, respectively. Averages are weighted by the number of wage employees in each country. Incidence of part-time is derived using the OECD definition of part-time workers as those who declare their usual working time per week as 30 hours or fewer. * the Plurinational State of Bolivia; ** the United Republic of Tanzania.

Source: ILO estimates based on survey data provided by national sources (see Appendix II).

2.5.6. Public-sector employment

Public sector employment[46] is higher among nationals than migrant workers in all the sampled HICs and LMICs for which recent data is available except for Bangladesh, Malawi and Sierra Leone, all of which are LMICs (figure 13), with variations across countries.[47] For example, in the case of Jordan, while only 2.0 per cent of migrant workers are employed in the public sector, about 41.7 per cent of nationals have some form of public sector employment. In contrast, in the Plurinational State of Bolivia, the proportions of migrant workers and nationals in the public sector are similar (24.3 per cent and 24.6 per cent, respectively). This pattern is true for both men and women, where both non-migrant men and women are more likely to have occupations in the public sector than their migrant counterparts, with few exceptions including in Bangladesh, Malawi, and Sierra Leone (where the share of migrant men with public sector jobs outweighs that of non-migrant men); and in Albania, Bangladesh, the Plurinational State of Bolivia, and Sierra Leone (where the share of migrant women with public sector jobs outweighs that of non-migrant women).

2.5.7. Migrant care workers

The ILO estimates that most care workers are women, often migrant women who work under poor conditions and receive low pay (ILO, 2018d; King-Dejardin, 2019). Domestic work, which is often informal, is situated at the lowest end of the care economy, and probably among the lowest paying jobs. As indicated earlier in this report, the ILO estimates there are about 67 million domestic workers worldwide, 80 per cent of which are women; about 11 million are migrant domestic workers (ILO, 2015c). They often lack recognition as workers, and labour and social protection law coverage, including minimum wage regulation, has been weak on them. Migrant workers have often been fulfilling the need for care workers in high income and middle-income countries typically working in low-paid positions. While they have been on the front line in the fight against COVID-19, the pandemic has exposed their particular vulnerability to wage cuts, non-payment of wages or deteriorating working conditions, affecting their income (ILO, 2020d, 2020h). The COVID-19 crisis has brought about the urgent need to improve the working conditions, including wages, and representation of rights of workers in essential care services (ILO, 2020i).

This section presents estimates of the proportion of migrant wage workers who are employed in the care economy as compared to migrant wage workers in other sectors of the economy, distinguishing between men and women. For the purpose of this report and following the definitions of the ILO, the care workforce is defined, where possible, to include care workers in care sectors (education, health and social work), care workers in other sectors, personal care and domestic workers, and non-care workers in care sectors who support care service provision.

Migrant women are over-represented in the care economy compared to migrant men

Although a substantial proportion of the overall migrant workforce work in the care economy, the proportion of migrant women engaged in the care economy far outweighs that of migrant men. Among the sample of countries for which reliable data sources exist, the proportion of men and women migrant workers engaged in the care economy ranges from about 3 per cent in Slovenia to about 41 per cent in Denmark (figure 14). Migrant women are more likely than migrant men to take up employment in the care economy, with the proportion of migrant women employed in the care economy exceeding that of migrant men in all the 25 countries reported in figure 14. For example, while only 9.1 per cent of migrant men work in the care economy in Italy, about 65.8 per cent of migrant women are employed in the care

46 We define public sector employment as all wage employment at institutions which are controlled and mainly financed by public authority. It is composed of a general government sector (government units, social security funds, and non-profit/non-market institutions controlled by public authority) and a public corporation sector (see Hammouya, 1999).

47 The data may reflect situations envisaged in Article 14 (c) of the Migrant Workers (Supplementary Provisions) Convention, 1975 (No. 143). These include situations where the protection of the interests of the State justifies the restrictions of certain employment or functions, by reason of their nature, to nationals of that State. The ILO supervisory bodies have noted that in most countries public service jobs are reserved to nationals. In some countries, restrictions on access to state employment are applicable to all state jobs, while in others, citizenship requirements apply to public sector recruitment processes at the federal and subnational level. The concept of "public service" and "public enterprises" may however cover a wide range of activities. In this regard, the ILO supervisory bodies have pointed out that general prohibitions as regards the access of foreigners to certain occupations, when permanent, are contrary to the principle of equal treatment unless they apply to limited categories of occupations or public services and are necessary in the interest of the State (see ILO General Survey concerning the migrant workers instruments, 2016, Geneva, para. 370).

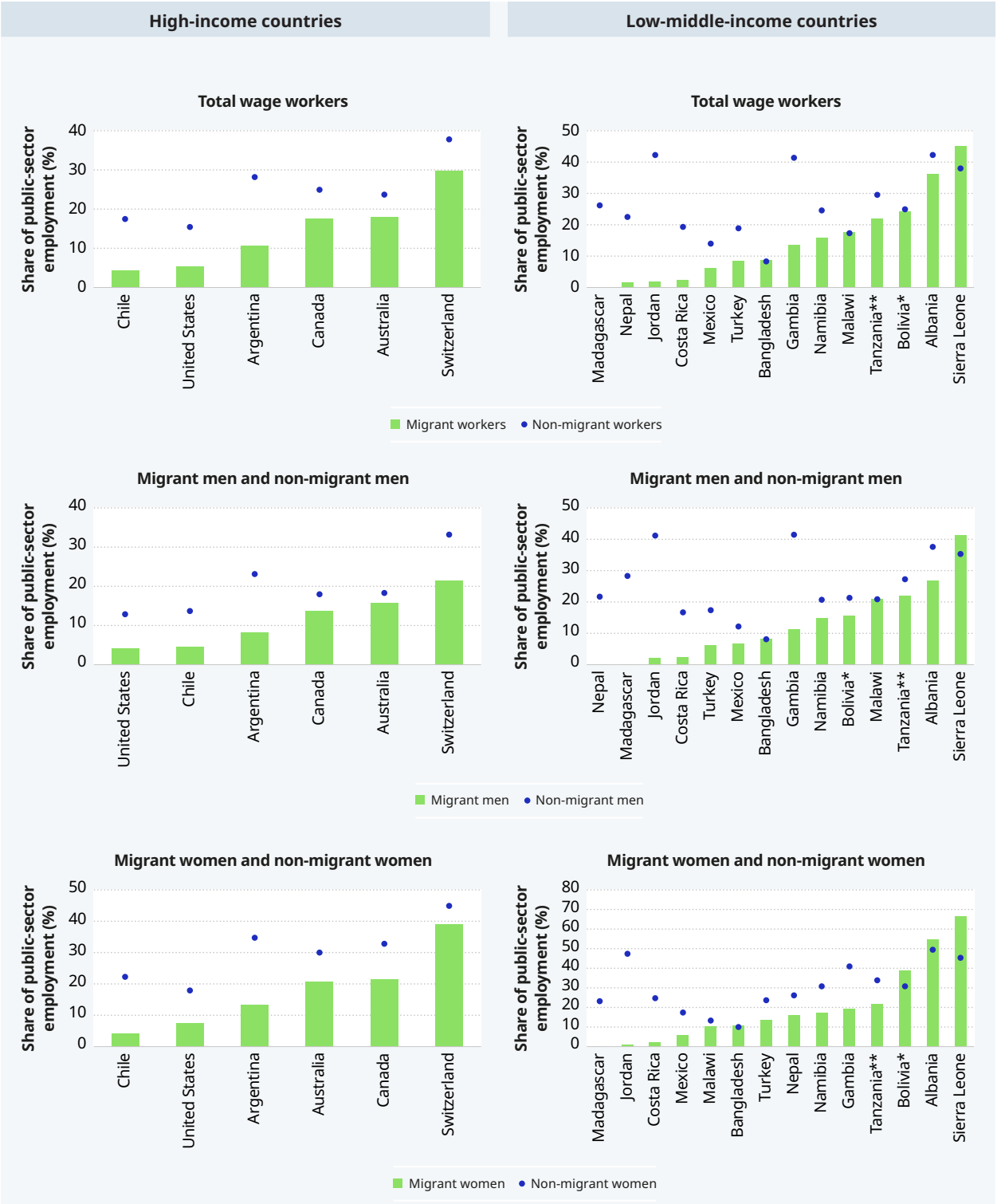
economy. This finding corroborates previous ILO findings (ILO, 2018d; King-Dejardin, 2019).

Migrant wage workers employed in the care economy represent a smaller proportion of overall wage workers

Figure 15 shows the proportions of migrant wage workers and migrant care workers among total wage workers, distinguishing between men and women. Though the proportion of care workers among migrant wage workers is substantial compared to other sectors (as seen in figure 14), migrant wage workers employed in the care economy represent a smaller proportion of overall wage workers in the economy (figure 15). For example, while migrant workers make up 47.0 per cent of all wage workers in Luxembourg, only about 11.7 per cent of wage workers are migrant care workers. The proportions differ for migrant men and women in each country. In the example of Luxembourg, while about 23 per cent of all women wage workers (of whom about 46.6 per cent are migrant women) are migrant care workers, in contrast, only 2.8 per cent of men wage workers (of whom about 47.3 per cent are migrant men) are migrant care workers.

Migrant health workers. © Copyright ILO. Photographer: J. Reyes

▶ **Figure 13: Incidence of public sector employment among migrant and non-migrant workers by sex, latest years**



Note: Public sector employment refers to all wage employment at institutions which are controlled and mainly financed by public authority. It is composed of a general government sector (government units, social security funds, and non-profit, non-market institutions controlled by public authority) and a public corporation sector. * the Plurinational State of Bolivia; ** the United Republic of Tanzania.

Source: ILO estimates based on survey data provided by national sources (see Appendix II).

▶ **Figure 14: The distribution of migrant wage workers between the care economy and other sectors by sex, latest years**

Note: Care workforce includes care workers in care sectors (education, health and social work), care workers in other sectors, domestic workers and non-care workers in care sectors, who support care service provision. Other sectors include all sectors not captured under the care economy.

Source: ILO estimates based on survey data provided by national sources (see Appendix II).

▶ Figure 15: The shares of migrant wage workers and migrant care workers among total wage workers by sex, latest years

Note: Care workforce includes care workers in care sectors (education, health and social work), care workers in other sectors, domestic workers and non-care workers in care sectors, who support care service provision.

Source: ILO estimates based on survey data provided by national sources (see Appendix II).

Chapter 3

Measuring and understanding the migrant pay gap

Chapter 3 – Measuring and understanding the migrant pay gap

This chapter of the report explores the migrant pay gap[48] using methods defined in the ILO's *Global Wage Report 2018/19*.[49] The populations covered are from 49 countries representing about a quarter of wage employees worldwide, and covering nearly half (49.4 per cent) of all international migrants, and roughly 33.8 per cent of migrant workers worldwide.

In summary, the findings in this chapter show that migrant workers in the sample of 33 HICs tend to earn significantly less than non-migrant workers in these countries, on average, and the observed pay gaps are largely unexplained by observed labour market characteristics. On the other hand, migrant workers in the sample of 16 LMICs tend to earn more than nationals of these countries, on average. However, it is significant to add that most of these LMICs are mainly countries of origin, mostly with positive net emigration, where there may be clusters of temporary high-skilled "expatriate" workers. There are of course few exceptions among the sample of LMICs including Costa Rica, Gambia, Jordan, Namibia, and Turkey where there are relatively large migrant populations. Based on average hourly wages of nationals and migrant workers, the report estimates that the migrant pay gap is about 12.6 per cent (in favour of nationals) in the sample of HICs and 8.6 per cent (in favour of nationals) across the Member States of the EU, while in the sample of LMICs migrant workers tend to earn about 17.3 per cent more than nationals. Nevertheless, there are notable variations across countries as described in the sections that follow.

Before looking at the estimates of the migrant pay gap, it is important to understand how wages are distributed among wage workers in each country. Section 3.1 examines the wage structures of migrant workers and nationals, showing also the wage distribution by gender.

3.1. The wage structure of migrant workers and nationals

Mean and median pay produce migrant pay gap estimates with the same signs but different magnitudes

The terms "migrants' pay" and "nationals' pay" refer to the full range of earnings received by all migrant workers and all nationals who are classified as paid or wage employees. This full range of wages is what is referred to as "the wage distribution" or "the wage structure" of wage workers in the population.

The two measures that are commonly used to summarize the information in such a distribution are the mean (the average of all the values covered) and the median (the value located in the middle of the distribution). Thus, the "mean migrant pay gap" compares the average of the migrant workers' pay distribution to the average of the nationals' pay distribution, while the "median migrant pay gap" compares the value located in the middle of the migrant workers' pay distribution to the value located in the middle of the nationals' pay distribution. This may be a source of differences between estimates. Visually examining and understanding the wage structure is important because it explains why using mean and median wages to estimate the migrant pay gap may produce significantly differing estimates due to their sign (positive or negative) and magnitude (or size).

Using hourly wages to estimate the migrant pay gap has the advantage of disentangling working time from earnings. Conversely, the use of other measures (monthly, weekly or daily pay) can reflect differences not only in hourly pay but also in the number of hours worked over a period of time. In practice, though monthly or weekly wages are more frequently available, most survey data from sources such as labour force surveys provide information that enables the derivation of hourly wages. In the sections that fol-

48 Migrant pay gap estimates presented in this report may differ from other sources owing to different ways that migrants are defined and differences in the choice of methodology

49 See Appendix I for description of the methods.

low, the migrant pay gap is analysed using hourly wages (to disentangle working time from earnings), as well as using monthly earnings (to understand the full extent of inequality of earnings between men and women migrant workers and nationals).

Figure 16 compares the hourly wage distribution of men and women migrant workers to that of nationals for a selection of countries.[50] With the exception of few countries, the probability densities of migrant workers and nationals are *bell-shaped*[51]. This implies that, though the mean and median migrant pay gaps may vary in size, they largely do not differ in sign (i.e. both the mean and median migrant pay gaps have the same sign in almost all the countries covered in the report). This implication is important from a policy standpoint. Whether or not the mean or the median hourly wage is used, the estimates for the migrant pay gap would be consistent, in terms of sign for most of the countries.[52]

From an equity standpoint, however, it is still important to understand the magnitude of the migrant pay gap, which is influenced by whether the mean or median wage is used. Using either the mean or median hourly wage only may underestimate or overestimate the migrant pay gap in countries where the probability density functions display peaks and troughs. Such differences in magnitude resulting from using the mean or median wage can pose an obstacle in advancing policies towards pay equity between nationals and migrant workers.

This may be illustrated by looking, for example, at the case of Luxembourg. In Luxembourg, as in most HICs, the mean (solid vertical line) and median (broken vertical line) hourly wages of migrant workers lie on the left of the mean and median hourly wages of nationals (the opposite is true for most of the sampled LMICs). Luxembourg's large proportion of migrant workers most likely receive the minimum wage which is reflected by the sharp rise of the migrant workers' wage curve at the lower end of the wage distribution. In fact, the median hourly wage of migrant workers in Luxembourg is not far from the tallest peak, which itself is close to the minimum wage, thus suggesting that a large proportion of migrant workers have earnings in the neighbourhood of the minimum wage. However, the mean hourly wage of migrant workers in Luxembourg is higher than their median hourly wage, and further away from the minimum wage. This is because there are few clusters of highly paid migrant workers (illustrated by the small peaks in the upper ranges, and long tail of the migrant workers' wage distribution) whose hourly wages are pulling up the mean wage for all men and women migrant workers in Luxembourg. Thus, mean and median migrant pay gaps in Luxembourg, while they have the same sign, significantly differ in magnitude (see figures 17–19) because of irregularities in the way in which wage employees are dispersed across the range of hourly wages.

We can also deduce from figure 16 that irregularities in the probability distributions are more likely to occur in the case of migrant workers than in the case of nationals; that is, the peaks and troughs in the wage structure are more prevalent for migrant workers than for nationals. The reason why this occurs across the wage distribution, especially for migrant workers, is that migrant workers cluster around specific hourly wages. For example, in many HICs, a clustering of migrant workers occurs around the minimum wage, which implies that the probability of finding migrant workers at the minimum wage is higher than that of finding nationals (see the cases of Cyprus and the Netherlands, for example). What the clustering indicates is that migrant workers are concentrated in specific ranges of hourly wages reflecting occupational segregation or "selective" labour market participation. In the case of the sample of LMICs, on the other hand, most of the clustering occurs at the top end of the wage distribution, where there may be highly skilled "expatriate" workers.

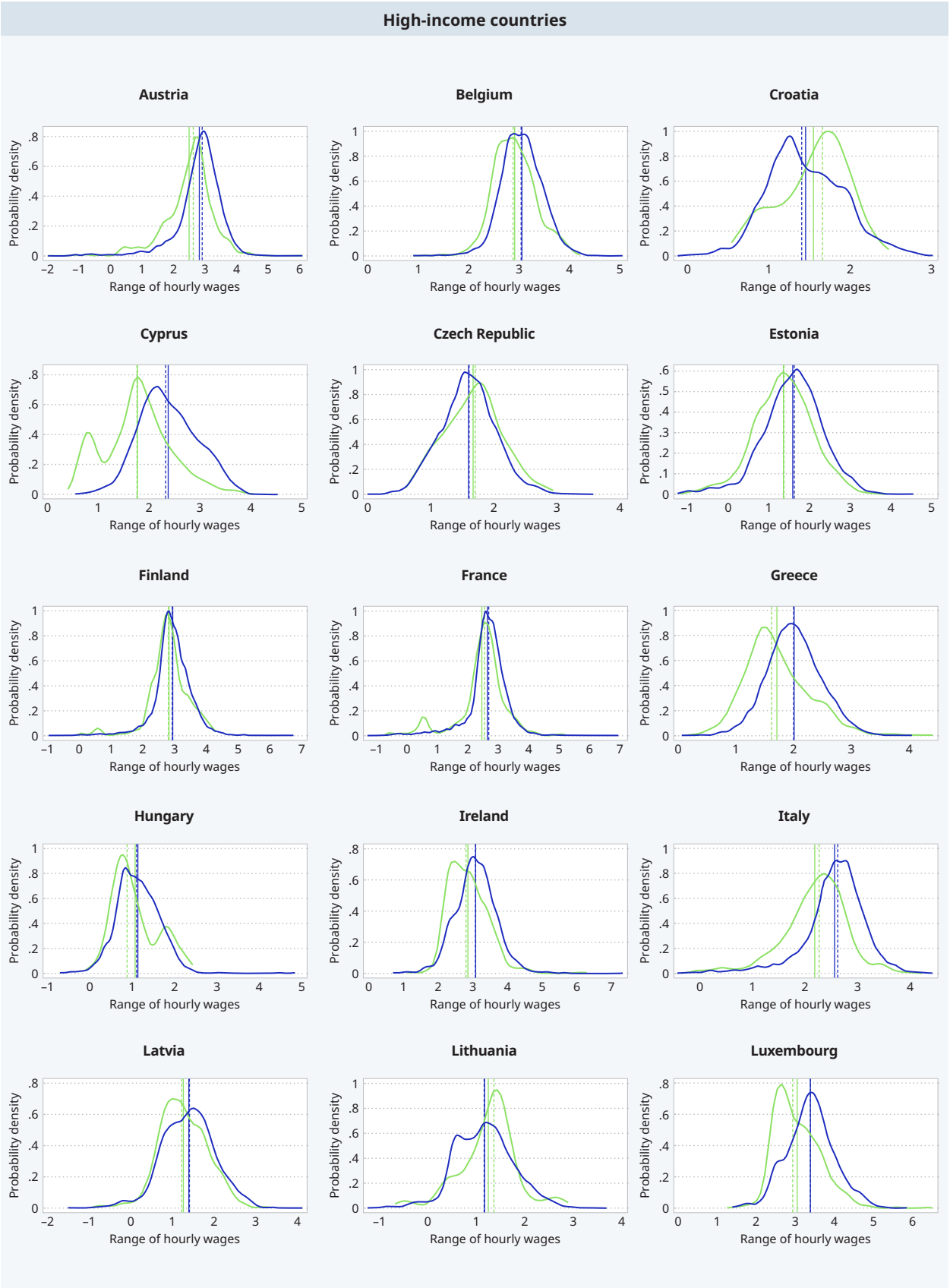
One problem with estimates of the migrant pay gap generated by the classic mean and median measures is that they are distorted by these clustering or composition effects, resulting in estimates that vary in magnitude (or size) which makes monitoring of trends difficult. Thus, the report goes

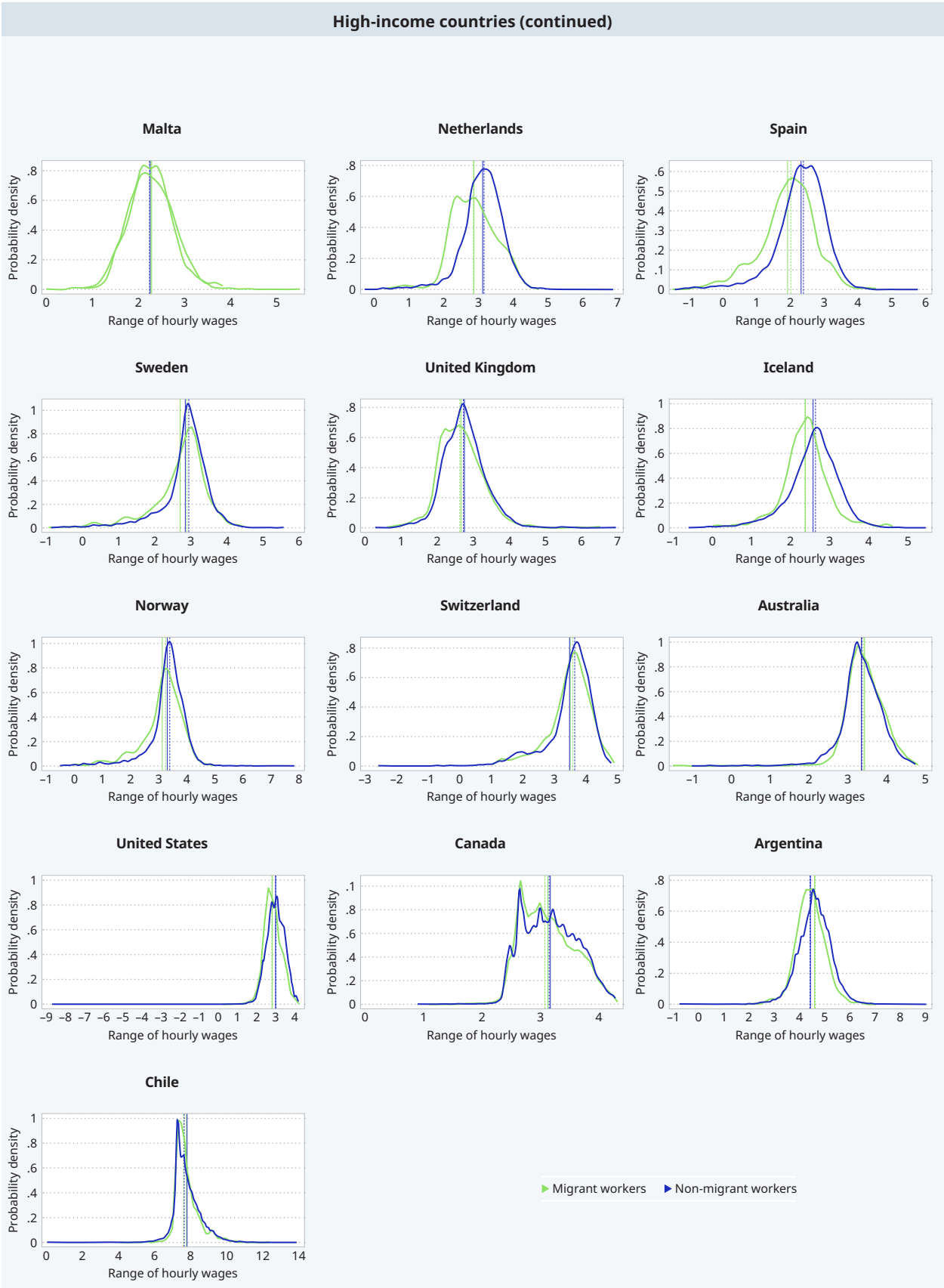
50 The hourly wage distribution is presented using the format of probability density function. A probability density function, usually called simply a "density function", shows how individuals are dispersed across a range of values – in our case, the range of hourly wages. For a detailed description and interpretation of the probability density functions for the hourly wage, see the ILO's *Global Wage Report 2018/19* (ILO, 2018a).

51 The term "bell-shaped" originates from the fact that the graph used to depict a normal distribution consists of a line whose shape resembles that of a bell. The highest point on the curve, or the top of the bell, represents the most probable event in a series of data (containing the greatest number of a value, for example, the mean or the median), while all other possible occurrences are equally distributed around this most probable event (mean or median), creating a downward-sloping line on each side of the peak. This, thus creates a distribution that resembles a bell (hence the name, bell-shaped). The bell-shaped curve is symmetrical, in that, half of the data will fall to the left of the mean or median, and half will fall to the right.

52 Due to the consistency in the sign of the migrant pay gaps, both at the mean wage and at the median wage (as shown in section 3.2) more focus is placed on the mean migrant pay gap, in particular for decomposition and simulation exercises that follow in Chapter 4.

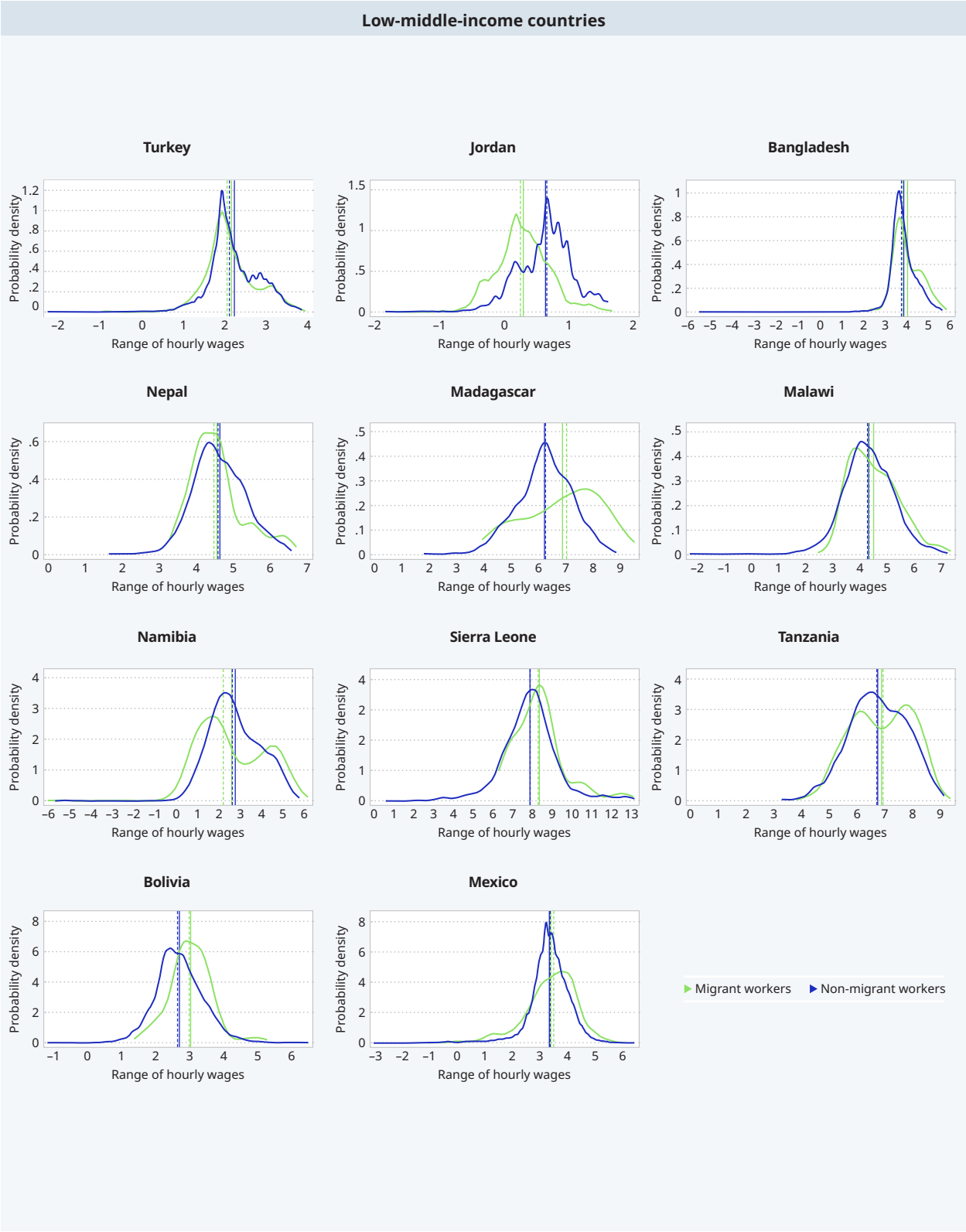
▶ **Figure 16: The wage structure of migrant workers and nationals, selected countries, latest years**





(Figure 16 continued on page 68)

(Figure 16 continued from page 67)



Note: The green curve represents the hourly wage distribution of men and women migrant wage workers whereas the blue represents that of nationals. The solid vertical line in each of the charts indicates the mean hourly wage, whereas the broken vertical line indicates the median hourly wage. Figure A-3 in Appendix IV replicates this figure in terms of men and women separately, distinguishing between migrant workers and nationals.

Source: ILO estimates based on survey data provided by national sources (see Appendix II).

beyond the classic mean and median migrant pay gaps to provide complementary estimates that consider these composition effects by estimating what is called the *factor-weighted* migrant pay gap, and the pay gap across the entire wage distribution of wage workers.

Similar patterns in the wage structures are exhibited by looking at the wage structures of men and women separately, distinguishing between migrant workers and nationals. This is displayed in figure A-3 (see Appendix IV). For a majority of the sample of countries, the mean hourly wage of migrant women workers is located at the left of the mean hourly wage of the three other groups, indicating that migrant women wage workers appear to be the most disadvantaged in terms of pay.

3.2. The raw migrant pay gap

The raw migrant pay gap, based on mean hourly wages of migrant workers and nationals, is estimated to be between 42.1 per cent in Cyprus (which is a 7.3 percentage points increase from the estimated gap in 2010 (34.8 per cent) according to the ILO Global Wage Report 2014/15) and –12.6 per cent in Slovakia in the sample of HICs, with a weighted average of 12.6 per cent; and between 30.1 per cent in Costa Rica and –136.7 per cent in Madagascar in the sample of LMICs, with a weighted average of -17.3 per cent.

The raw migrant pay gap simply refers to the difference in pay between migrant wage workers and nationals at a specific point in time. The gap is usually calculated as the margin by which migrant workers' pay falls short of the pay of nationals. For example, if migrant workers' earn 85 per cent of nationals' earnings on average, then it is said that the migrant pay gap is 15 per cent. This part of the report begins by showing the migrant pay gap using the two common measures of summarizing pay (mean and median wages) to provide an insightful starting point for a detailed analysis and understanding of pay differentials between migrant wage workers and nationals.

Figures 17 and 18 show estimates of the migrant pay gap for all the 49 sampled countries. Each of these figures presents estimates of mean and median migrant pay gap, using hourly wages as well as monthly earnings of migrant wage workers and nationals. They include an overall average migrant pay gap by income group based on weights that account for the population size (specifically, of wage workers) of each studied country.

An observation arising from these figures is that regardless of whether hourly wages or monthly earnings is used, the migrant pay gap is significantly positive in most HICs, implying that nationals in HICs earn much more than migrant workers on average. It is negative in most LMICs, implying that migrant workers tend to earn more in LMICs than nationals on average. However, it is important to note that these LMICs are mainly countries of origin (mostly with positive net emigration), with a few exceptions such as Costa Rica, Gambia, Jordan, Namibia, and Turkey.

Considering the mean migrant pay gap based on hourly wages, 26 of the 33 HICs covered in the report have a positive mean migrant pay gap, implying that nationals tend to earn more than migrant workers in these countries. The same is true for 27 of the 33 HICs when looking at the median hourly migrant pay gap (figure 17). However, among the 16 sampled LMICs, only four countries (Costa Rica, Jordan, Nepal, and Turkey) have positive mean hourly migrant pay gap estimates and only six (Bulgaria, Costa Rica, Jordan, Namibia, Nepal, and Turkey) have positive median hourly migrant pay gap estimates (figure 17).

In the case of monthly earnings in figure 18, the prevalence of positive migrant pay gap is more or less the same as using hourly wages with 26 of the 33 HICs recording positive mean monthly migrant pay gap, and 28 of the 33 HICs recording positive median monthly migrant pay gap. Only three (Costa Rica, Jordan, and Turkey) of the 16 LMICs report positive mean monthly migrant pay gap while only five (Bulgaria, Costa Rica, Jordan, Namibia, and Turkey) have positive median monthly migrant pay gap when estimation is based on monthly earnings.

While estimates of the migrant pay gap is positive in most HICs, it is negative in only few countries such as in Australia (a finding consistent with estimate from Chiswick, Le and Miller (2008))[53] and Slovakia, with figures providing strong evidence of an overall pay gap in favour of nationals in HICs. On the other hand, the figures provide strong evidence of

53 As shown in Section 3.4, the raw migrant pay gap for Australia suffers a lot from composition effect, which when accounted for in the estimation, turns the negative estimate to a positive pay gap in favour of nationals.

an overall pay gap in favour of migrant workers in LMICs, with a few exceptions including in Bulgaria, Costa Rica, Jordan, Namibia, Nepal, and Turkey. Again, this trend in favour of migrant workers, on average, in the sample of LMICs may reflect the likelihood of clusters of highly skilled "expatriate" workers whose foreign-acquired education and experience may attract higher returns relative to that of the nationals.

The weighted averages in the sample of HICs range from about 12.6 per cent (in the case of mean hourly wages) to 18.4 per cent (in the case of median monthly earnings) in favour of nationals, and from about 8.6 per cent (in the case of mean hourly wages) to 16.8 per cent (in the case median monthly earnings) in favour of nationals across the Member States of the EU. In the sample of LMICs, however, the weighted averages range from an estimated –7.5 per cent (based on median hourly wages) to –19.1 per cent (based on mean monthly earnings). However, there are wide variations among countries within income groups, with the mean migrant pay gap, for example, ranging from 42.1 per cent in Cyprus to –12.5 per cent in Slovakia in the sample of HICs and from 30.1 per cent in Costa Rica to –136.7 per cent in Madagascar in the sample of LMICs.

Another observation is that, although the mean and median estimates can generate different results in terms of magnitude (or size), they do not differ much in terms of sign. This means that whether mean and median hourly wages, or mean and median monthly earnings are compared, the difference in terms of sign is negligible. Figure 19 illustrates this by showing the mean and median migrant pay gaps based on hourly wages in one chart and based on monthly earnings in another chart. These chats show similar trends in terms of the direction of the estimates, with only few exceptions. The signs of both the mean and median migrant pay gaps are the same for all but only three countries (Bulgaria, Namibia and Poland)[54] when based on hourly wages and four countries (Bulgaria, Namibia, Poland and Slovakia)[55] when based on monthly earnings, implying that both measures largely provide consistent estimates in terms of direction of the pay gap.

However, differences in magnitude (or size) alone can become an obstacle in advancing policies towards pay equity between nationals and migrant workers. Apart from presenting gender dimensions of the migrant pay gap as well as comparing the pay gap between informal and formal workers (section 3.3), the analysis goes beyond the mean and the median to provide complementary estimates that consider composition effects in estimating the migrant pay gap (called the factor-weighted migrant pay gap) in section 3.4, and to provide migrant pay gaps across the entire wage distribution in section 3.5.

3.3. The migrant pay gap in different subgroups

3.3.1. Migrant women tend to pay a double penalty

Results from this section shows that migrant women, particularly in HICs tend to pay a double penalty for being both women and migrants as compared to the average migrant worker, a finding consistent with results from the OECD's International Migration Outlook 2020 (OECD, 2020b). Specifically, migrant women earn less than migrant men (who in turn earn less than non-migrant workers) in the sample of HICs. They also earn less than non-migrant women and even far less than non-migrant men in the sample of HICs. For example, the pay gap (based on mean hourly wages) between non-migrant men and migrant women in the sample of 33 HICs covered in this report is estimated at around 20.9 per cent, which is much wider than the estimated global aggregate gender pay gap (based on mean hourly wages) of 16.2 per cent among HICs.

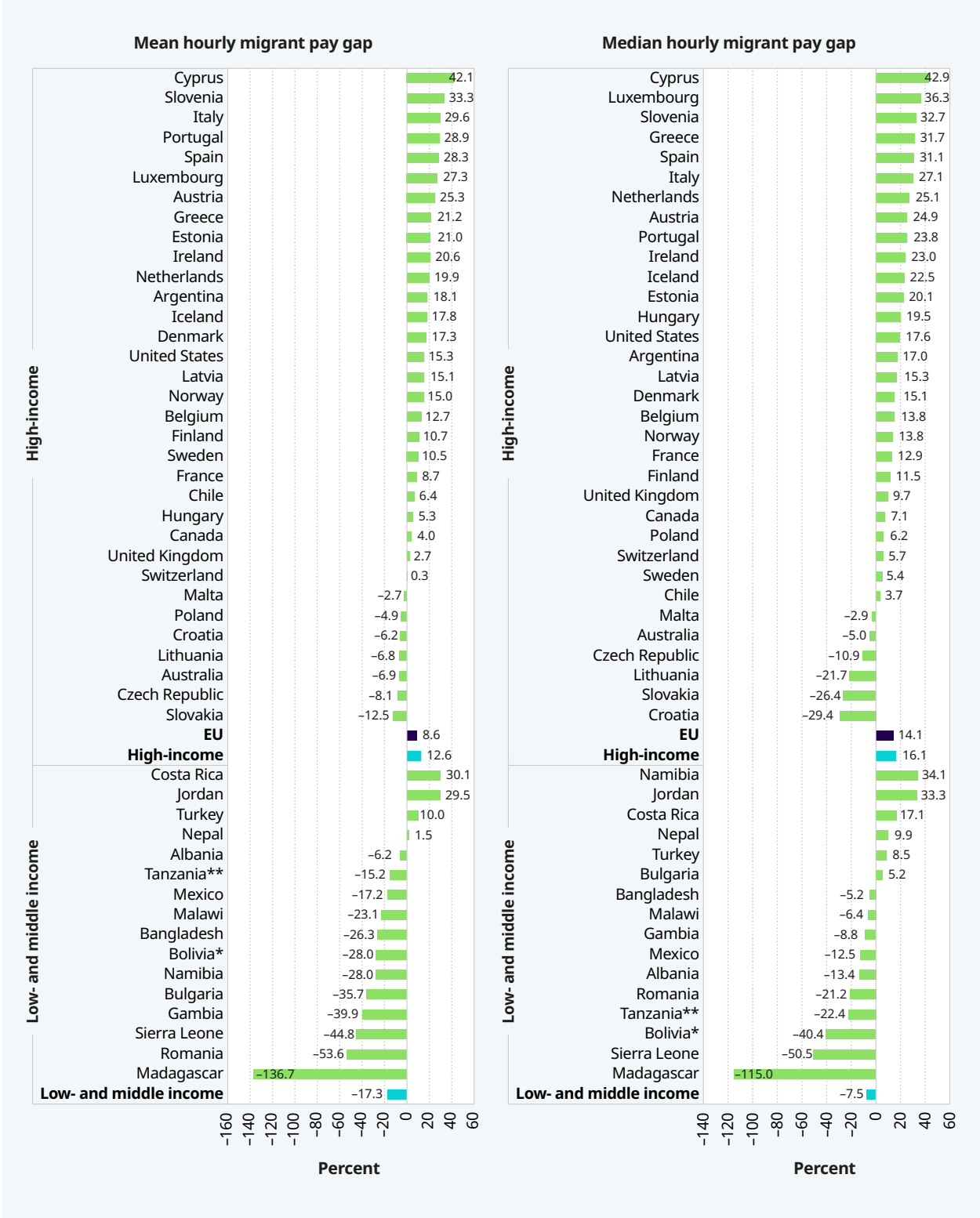
Migrant men and migrant women in HICs earn less than their non-migrant counterparts

Figures 17 and 18 present estimates of the mean and median migrant pay gaps at the aggregate (i.e. for men and women combined) for the 49 studied

54 The migrant pay gap based on hourly wages switches sign from negative to positive only in Bulgaria (from –35.7 to 5.2 per cent), Namibia (from –28.0 to 34.1 per cent) and Poland (–4.9 to 6.2 per cent) when the pay gap is based on median hourly wages rather than mean hourly wages. The remaining 46 countries retain the same sign regardless of whether the migrant pay gap is based on mean or median hourly wages.

55 The migrant pay gap switches sign from –29.5 to 5.2 per cent in Bulgaria, from –32.0 to 44.4 per cent in Namibia, from –8.3 to 12.8 per cent in Poland, and from –11.2 to 1.5 per cent in Slovakia when it is estimated based on median monthly earnings rather than mean monthly earnings. The remaining 45 countries retain the same sign regardless of whether mean or median monthly earnings are used.

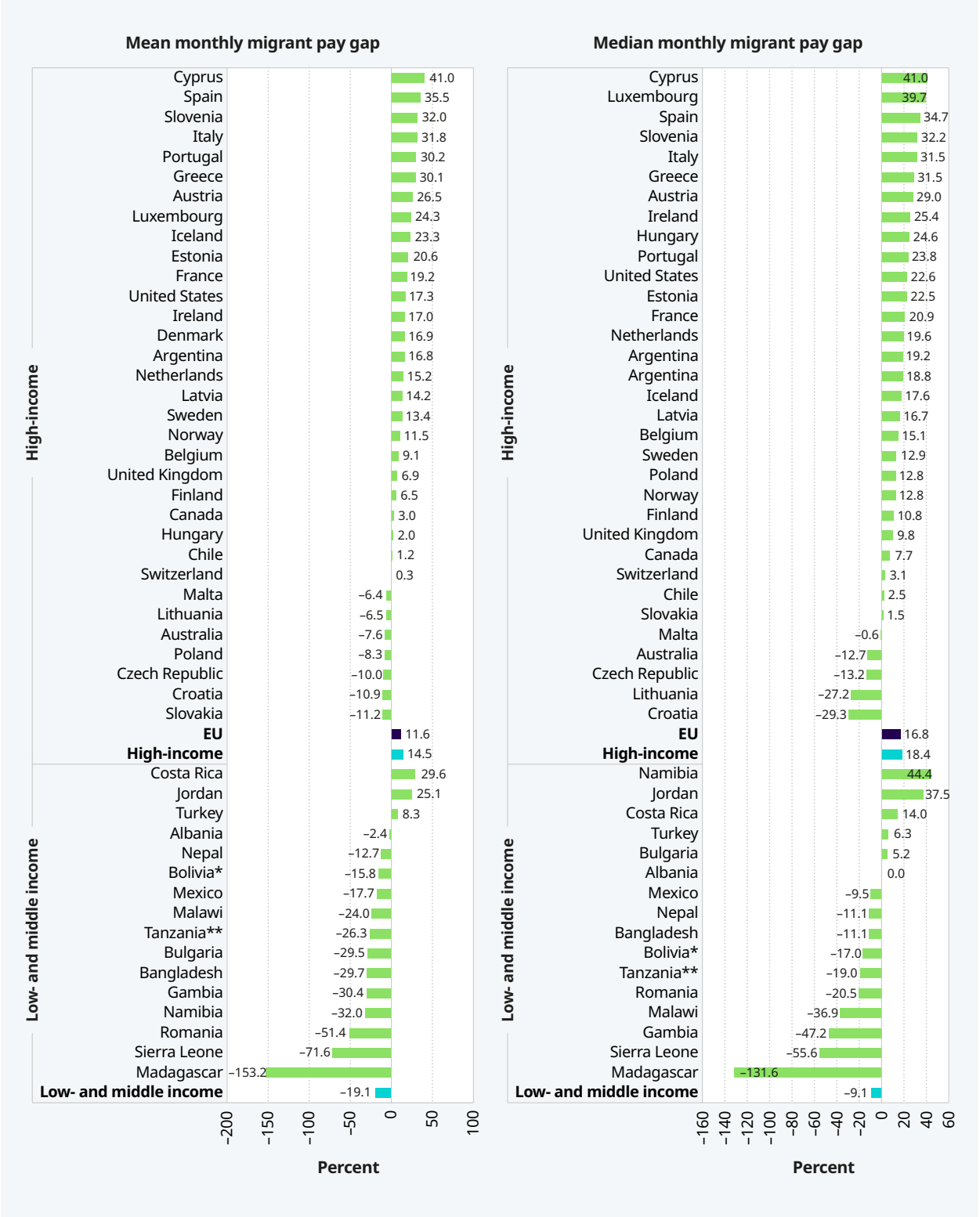
▶ Figure 17: Migrant pay gaps using hourly wages, latest years



Note: EU, high-income, and low- and middle-income estimates are the averages of the European Union, the sample of high-income countries, and low- and middle-income countries, respectively. Averages are weighted by the number of wage employees in each country. * the Plurinational State of Bolivia; ** the United Republic of Tanzania.

Source: ILO estimates based on survey data provided by national sources (see Appendix II).

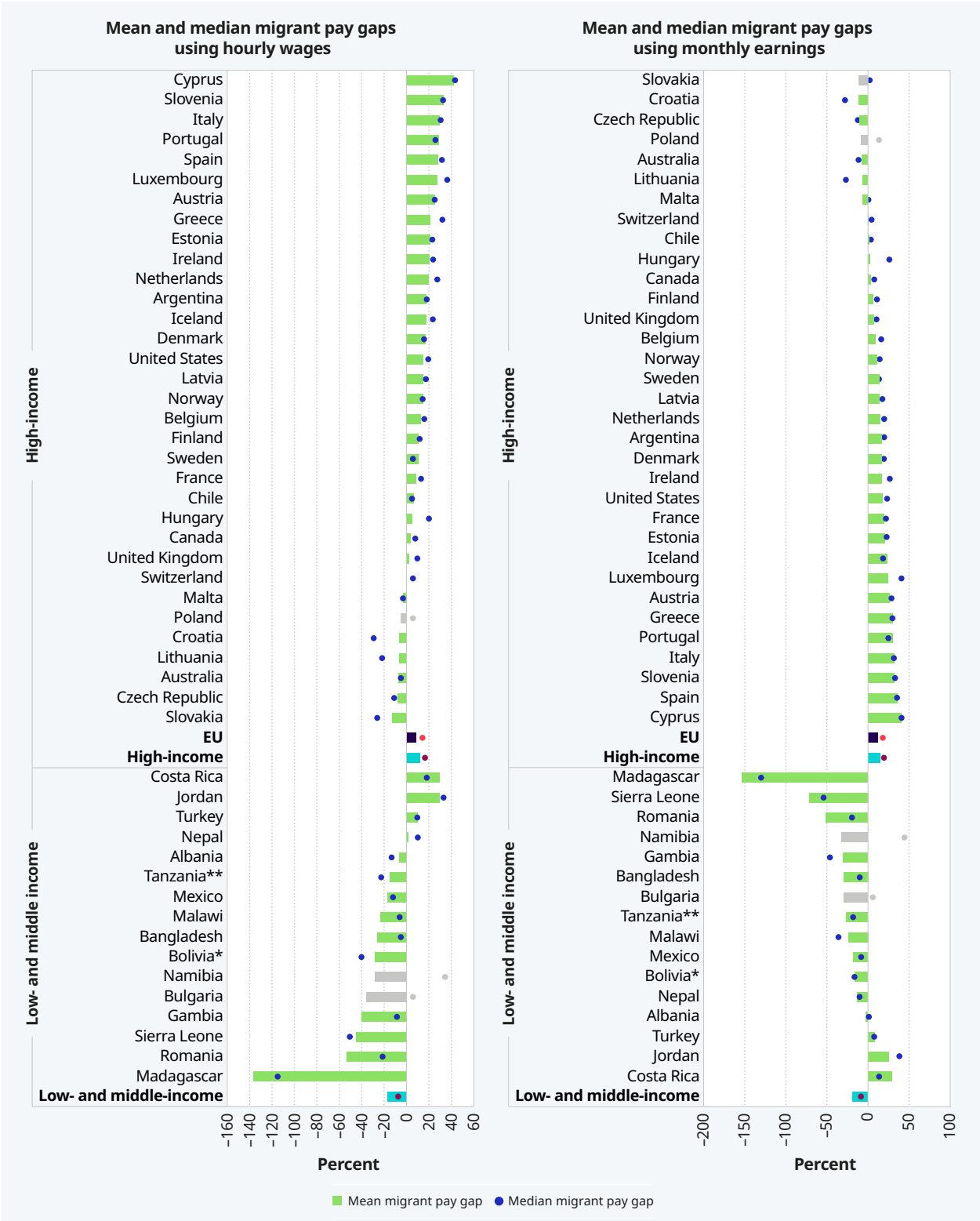
▶ Figure 18: Migrant pay gaps using monthly earnings, latest years



Note: EU, high-income, and low- and middle-income estimates are the averages of the European Union, the sample of high-income countries, and low- and middle-income countries, respectively. Averages are weighted by the number of wage employees in each country. * the Plurinational State of Bolivia; ** the United Republic of Tanzania.

Source: ILO estimates based on survey data provided by national sources (see Appendix II).

▶ Figure 19: Comparing the mean and median migrant pay gaps



Note: EU, high-income, and low- and middle-income estimates are the averages of the European Union, the sample of high-income countries, and low- and middle-income countries, respectively. Averages are weighted by the number of wage employees in each country. * the Plurinational State of Bolivia; ** the United Republic of Tanzania.

Source: ILO estimates based on survey data provided by national sources (see Appendix II).

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countries. However, figures 3 and 12, and table 7, indicate that men and women differ significantly in terms of their labour market participation, working time status, and the incidence of informality. Women on average participate less than men in the labour market, and are more likely than men to work in the informal economy and on part-time. Therefore, figure 20 presents estimates of mean hourly migrant pay gap, separating the sample to distinguish between women and men, with the first column comparing migrant men and non-migrant men, and the second column comparing migrant women and non-migrant women.

The pay gap between non-migrant men and migrant men in figure 20 mimics the aggregate raw migrant pay gap estimates in figure 17. The sign of the estimates stay the same for almost all the countries. With regards to size, the hourly pay gap between men nationals and migrant men tend to be wider in the sample of HICs and the EU than the aggregate pay gap estimates. The weighted hourly pay gap between men nationals and migrant men is approximately 14.3 per cent in the sample of HICs and 14.7 per cent in the EU (figure 20), compared to the aggregate estimates of 12.6 per cent in HICs and 8.6 per cent in the EU (figure 17), with variations across countries. For example, while migrant men earn 38.3 per cent less than non-migrant men in Cyprus, they earn 1.3 per cent less than non-migrant men in Switzerland, and 9.8 per cent more than non-migrant men in Australia. In the sample of LMICs, on the other hand, the weighted average migrant pay gap between men nationals and migrant men is estimated as –14.3 per cent, with variations across countries. For example, in the case of Jordan, migrant men tend to earn 26.8 per cent less than non-migrant men, whereas in Namibia, migrant men earn about 29.2 per cent more than non-migrant men.

In the case of the pay gap between non-migrant women and migrant women, the estimates change sign in nine countries (in reference to the overall migrant pay gap in figure 17), switching from negative to positive in Croatia, Lithuania, Madagascar, Malta, the United Republic of Tanzania, and Sierra Leone; and from positive to negative in Switzerland, Turkey and the United Kingdom. The weighted hourly pay gap between women nationals and migrant women is 12.4 per cent in the sample of HICs in favour of women nationals, 0.5 per cent in the EU, and –21.7 per cent in the sample of LMICs, with notable variations across countries. For example, in the sample of HICs, the pay gap between non-migrant women and migrant women ranges between –25.0 per cent in Slovakia to 44.4 per cent in Cyprus. In the case of Spain, the pay gap between non-migrant women and migrant women is estimated at 26.3 per cent, which is a 7.3 percentage point increase in the estimated gap in 2006 (19.0 per cent) (Antón, de Bustillo and Carrera, 2012).

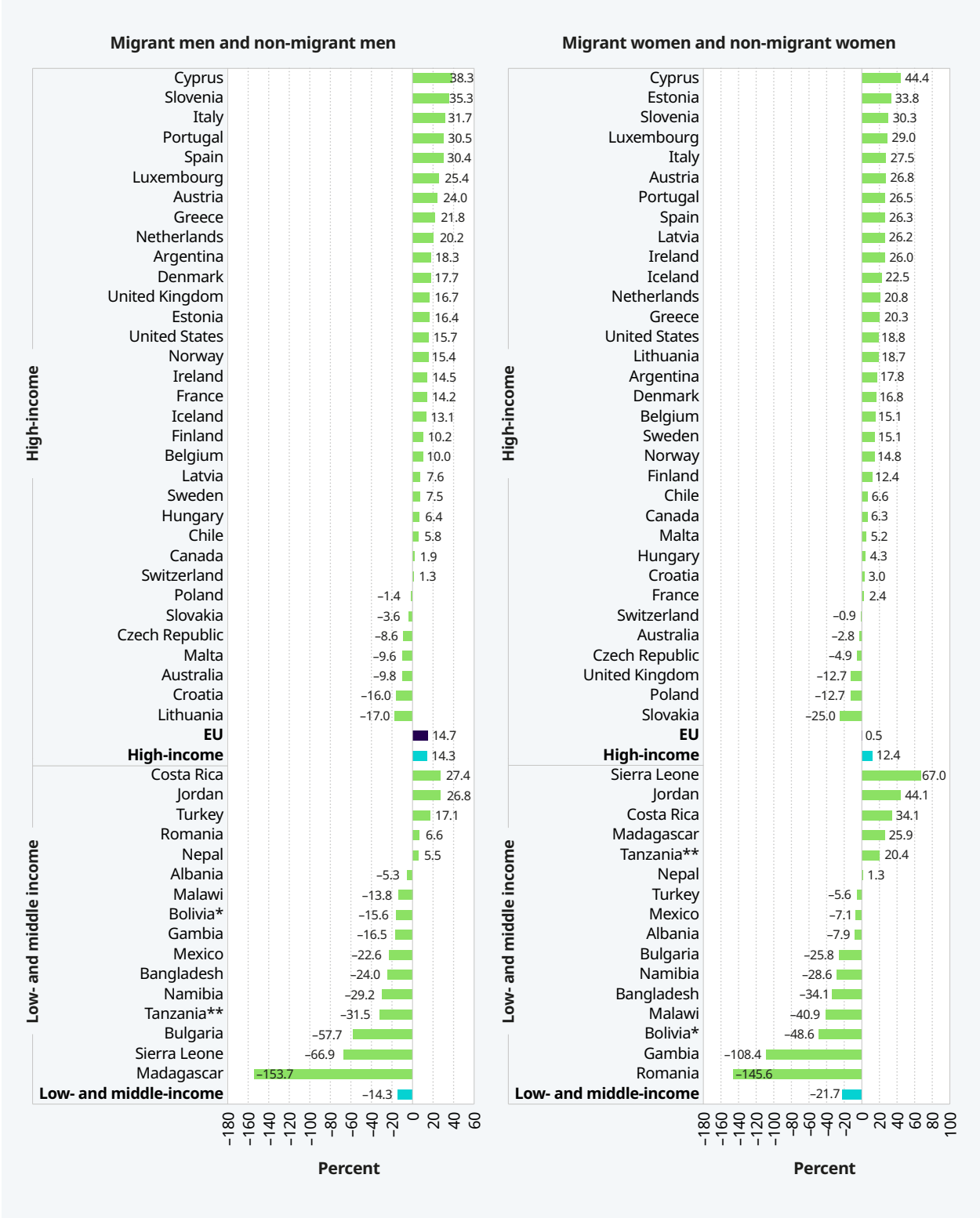
Lower wages of migrant women relative to non-migrant women is a clear indication that pay gaps are higher for migrant women than for women in general who already earn less than men as reported in the ILO Global Wage Report 2018/19 (ILO, 2018a).

Migrant women earn less than migrant men in a large number of countries

Turning to the pay gap between men and women migrant workers, figure 21 shows this and how the estimates compare to the aggregate mean gender pay gap at the country level.[56] The figure shows that the two types of gender pay gap exhibit a mixed pattern. In 17 of the 49 countries (including, among others, Australia, Canada, Estonia, Iceland, and the United States in the sample of HICs and Jordan, Mexico, Sierra Leone, and the United Republic of Tanzania in the sample of LMICs), the gender pay gap between migrant men and migrant women is much higher than the aggregate gender pay gap at the country level, reinforcing the double penalty hypothesis for migrant women in these countries. For example, in the United States, the gender pay

56 Estimates of the aggregate gender pay gap at the country level are retrieved from the ILO's *Global Wage Report 2018/19*.

▶ Figure 20: Mean migrant pay gaps using hourly wages by sex, latest years



Note: EU, high-income, and low- and middle-income estimates are the averages of the European Union, the sample of high-income countries, and low- and middle-income countries, respectively. Averages are weighted by the number of wage employees in each country. * the Plurinational State of Bolivia; ** the United Republic of Tanzania.

Source: ILO estimates based on survey data provided by national sources (see Appendix II).

A digital economy women migrant worker in Buenos Aires. © Copyright ILO Argentina

gap between migrant men and migrant women is about 20.1 per cent, compared to the aggregate gender pay gap (between all men and all women) of 16.0 per cent.

Migrant women earn far less than non-migrant men in HICs

To further explore the double penalty hypothesis for migrant women, figure 22 shows estimates of the mean hourly gender pay gap between men nationals and migrant women and compares this gap to the aggregate gender pay gap at the country level. As expected, the mean hourly pay gap between men nationals and migrant women in HICs is positive everywhere (except in Poland, Slovakia, and the United Kingdom) and exceeds the gender pay gap at the country level in most of the sampled 33 HICs, reinforcing the double penalty hypothesis for migrant women. The gender pay gap between men nationals and women migrant workers in the sample of HICs is about 20.9 per cent compared to the aggregate gender pay gap of 16.2 per cent in this sample, with variations across countries.

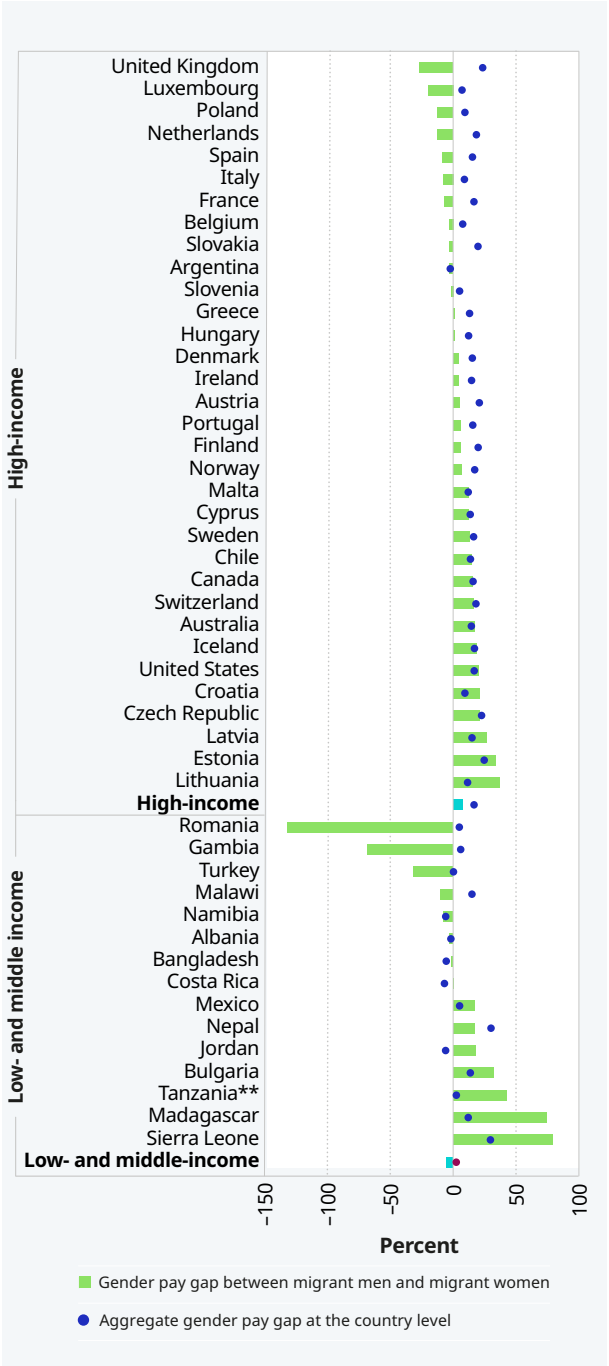
The trend is different among the sample of LMICs where the mean hourly gender pay gap between men nationals and migrant women exceeds the overall country-level gender pay gap in only five of the 16 LMICs covered in the report (Costa Rica, Jordan, Madagascar, Sierra Leone, and the United Republic of Tanzania). The gender pay gap between men nationals and women migrant workers in the other 11 LMICs is in favour of women migrants, with an overall weighted average of about –15.1 per cent compared to the average aggregate gender pay gap of 2.4 per cent in these countries.

3.3.2. The migrant pay gap in the formal and informal economies

Figure 23 presents estimates of the mean and median hourly migrant pay gaps for 14 of the 49 studied countries for which informality estimates are available. These 14 countries host roughly 5.3 per cent of international migrants and just 3.0 per cent of migrant workers worldwide. In the two HICs with available data, Argentina and Chile, both the mean and median migrant pay gaps are positive in the formal economy but negative in the informal economy.

In the case of LMICs, the results show a mixed pattern. While the mean migrant pay gap is positive in Bangladesh, the Plurinational State of Bolivia, Costa Rica, and Malawi in the formal economy, it is positive only in Costa Rica, Namibia, Nepal, and the United Republic of Tanzania in the informal economy. The median migrant pay gap in LMICs shows a similar pattern.

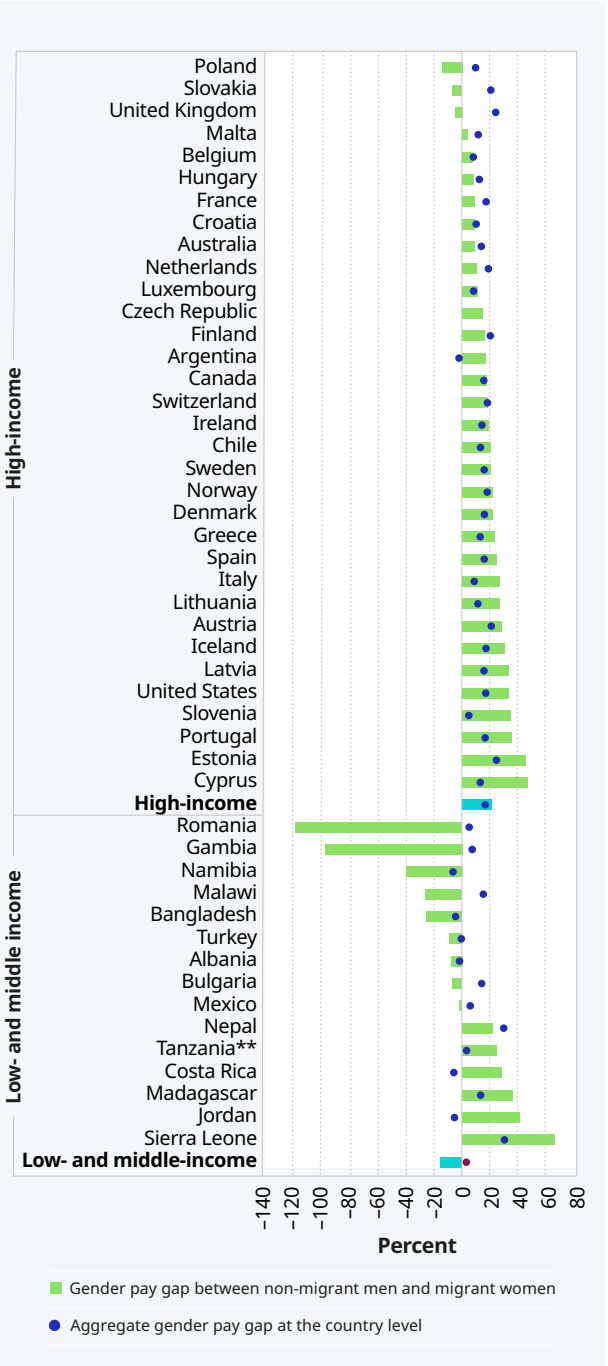
▶ **Figure 21: The gender pay gap between men and women migrant workers and how it compares to the aggregate gender pay gap in the economy, using mean hourly wages, latest year**



Note: Aggregate gender pay gaps in the economy are retrieved from the ILO Global Wage Report 2018/19. High-income and low- and middle-income estimates are the averages of the sample of high-income countries, and low- and middle-income countries, respectively. Averages are weighted by the number of wage employees in each country. ** the United Republic of Tanzania.

Source: ILO estimates based on survey data provided by national sources (see Appendix II).

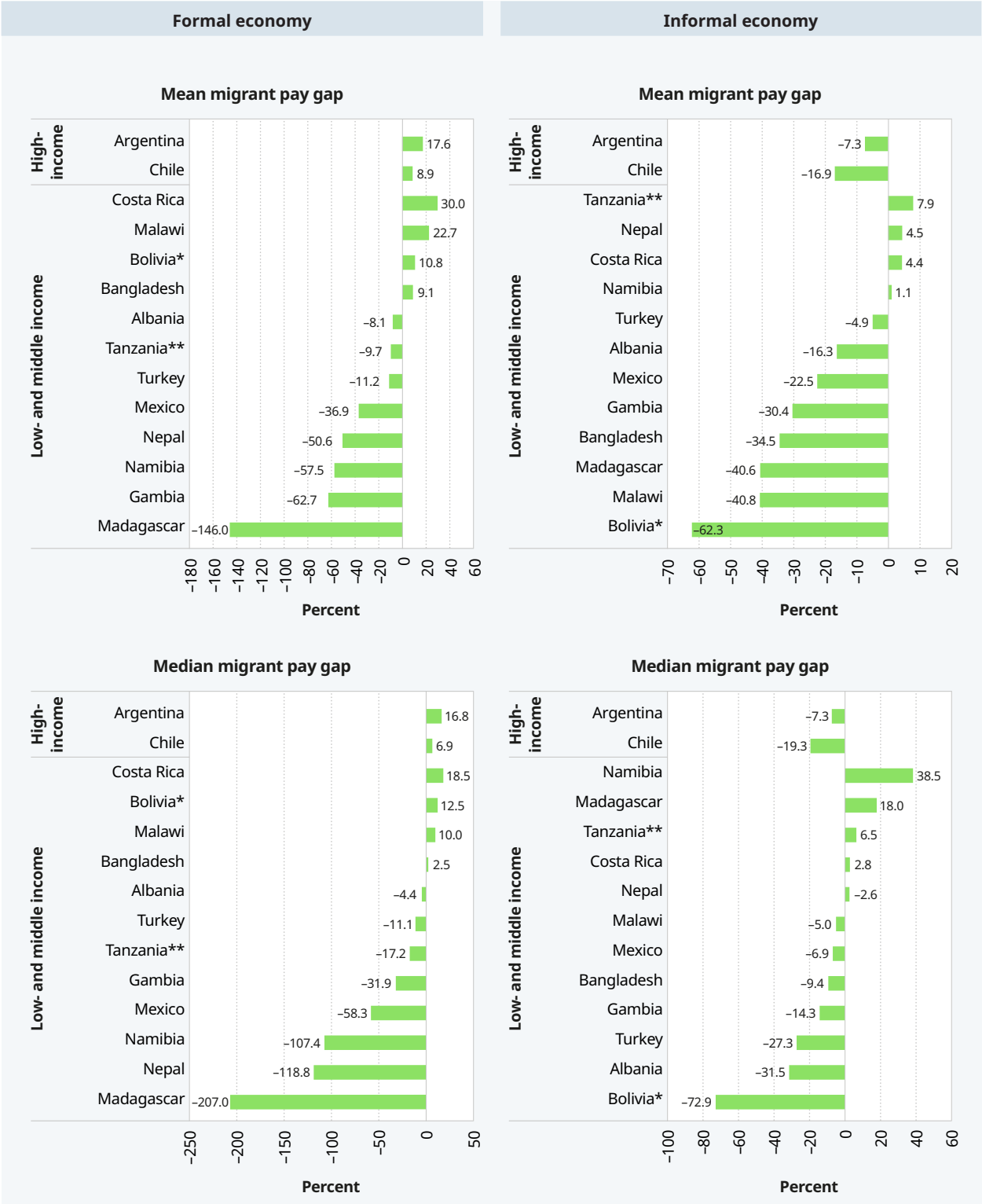
▶ **Figure 22: The gender pay gap between non-migrant men and migrant women and how this compares to the aggregate gender pay gap in the economy, using the mean hourly wage, latest years**



Note: Aggregate gender pay gaps in the economy are retrieved from the ILO Global Wage Report 2018/19. High-income and low- and middle-income estimates are the averages of the sample of high-income countries, and low- and middle-income countries, respectively. Averages are weighted by the number of wage employees in each country. ** the United Republic of Tanzania.

Source: ILO estimates based on survey data provided by national sources (see Appendix II).

▶ Figure 23: Migrant pay gaps in the informal and formal economies, using the mean and median hourly wage, latest years



Note: The informal economy refers to the set of all economic activities by workers and economic units that are – in law and practice – not covered or insufficiently covered by formal arrangements. * the Plurinational State of Bolivia; ** the United Republic of Tanzania.

Source: ILO estimates based on survey data provided by national sources (see Appendix II).

The ILO Decent Work across Borders, a project funded by the European Union on migrant health workers and skilled professionals, launched a photo contest in 2013. The photo contest, in partnership with the Alliance of Young Nurse Leaders and Advocates (AYNLA) captured images related to migration from the perspective of young health professionals. © Copyright ILO

3.3.3. The migrant pay gap is wider in the care economy than the overall migrant pay gap

This section compares estimates of the migrant pay gap in the care economy with the overall migrant pay gap. Using mean and median hourly wages, migrant care workers in most countries appear to have a higher wage penalty on average than migrant workers in general (figure 24). For example, in Cyprus, migrant care workers receive 25 percentage points less wages than the average migrant worker (67.2 per cent mean migrant pay gap in the care economy compared to 42.1 per cent overall mean migrant pay gap). In Malta, while both the mean and median overall migrant pay gaps are negative (–2.7 per cent and –2.9 per cent, respectively), i.e., migrant workers earn more than non-migrant workers, the mean and median pay gaps in the care economy are positive and wider in favour of non-migrant care workers (19.0 per cent and 13.5 per cent, respectively).

On the other hand, while migrant care workers tend to pay a higher penalty in most of the studied countries, the mean pay gap within the care economy is similar to the overall pay gap for a number of countries (for example, Iceland, Portugal, Spain, and Sweden). In the case of Sweden, the overall mean migrant pay gap and the mean pay gap in the care economy stand at 10.5 per cent and 10.4 per cent, respectively. Also, in countries like Finland, France, Norway, Slovenia, Turkey and the United Kingdom, migrant care workers tend to be better off than the average migrant worker. That is, the migrant pay gap in the care economy is either negative or lower than the overall migrant pay gap in these countries. In the case of the United Kingdom, for example, while the overall mean migrant pay gap is estimated at 2.7 per cent, the migrant pay gap in the care economy is about –14.2 per cent.

In sum, the mean migrant pay gap in the care economy is estimated at approximately 19.6 per cent compared to the overall mean migrant pay gap of about 17.1 per cent in the countries for which estimates are available for the care economy. The corresponding weighted estimate of the median migrant pay gap in the care economy is 22.5 per cent compared to about 18.6 per cent in the overall economy.

▶ Figure 24: A comparison between the aggregate migrant pay gap and the migrant pay gap in the care economy, latest years

Note: The care workforce includes care workers in care sectors (education, health and social work), care workers in other sectors, domestic workers and non-care workers in care sectors, who support care service provision.

Source: ILO estimates based on survey data provided by national sources (see Appendix II).

▶ Box 3. Migrant workers have been significantly affected by the COVID-19 crisis

Survey data from Mexico and the United States that covers up to the third quarter of 2020, shows that at the onset of the pandemic, migrant and non-migrant workers in the two countries lost jobs, while among those that remained employed – both migrants and non-migrants – there was a decline in aggregate number of hours worked. Most of those that lost their jobs are low paid workers, which means that the average earnings of those that remained in paid employment during the pandemic is likely to be artificially higher compared to similar estimates at pre-pandemic periods. It is for this reason that comparing the migrant pay gap before and during the pandemic may not bring about much useful policy instrument. However, as an indication, one can compare trends in the aggregate real monthly earnings between the two groups.

In the case of Mexico, the ratio of aggregate real monthly earnings between migrant and non-migrant workers before the onset of the pandemic was 0.75 per cent – i.e., migrant workers, who by then were about one per cent of the employed population, earned 0.75 per cent of real monthly earnings, in aggregate, compared to non-migrants. At the onset of the pandemic in April 2020 the ratio dropped drastically to 0.55 per cent, and although it had recovered gradually over the next few months, the ratio stood at 0.72 per cent by October 2020. It is important to point out that in October 2020, the data from Mexico shows an increase of seven per cent more migrant workers compared to the same period in 2019 – while there are fewer non-migrant workers in employment as a consequence of the health crisis. Despite the increase in the number of migrant workers, the ratio between migrants' and non-migrants' aggregate real monthly earnings is lower at 0.72 per cent, thus showing that migrant workers in Mexico received less earnings mass – and less per worker – compared to that which they received in 2019.

In the case of the United States, on the other hand, where migrants (including naturalized migrants) approximated about 18 per cent of workers in the population in pre-pandemic times, the ratio of total earnings between migrant and non-migrant workers dropped from 21.5 per cent to 18.1 per cent between March and April 2020. The ratio did recover somehow to reach 20 per cent by October 2020, although there were 8 per cent less migrants working in the United States by October 2020 compared to those observed in March 2020. This probably indicates that migrants that lost their jobs are low paid migrants since the total decline in aggregate real earnings would be greater if the number of migrant workers that lost their jobs (8 per cent) were spread across different locations of the wage distribution. Thus, in the United States the results suggest that the greater loss for migrant workers was in terms of employment loss – compared to the estimates for Mexico which shows that the loss was in terms of average earnings among those that remained in employment.

Notes: The results are preliminary and potentially subject to modification in a future independent ILO working paper.

3.3.4 Migrant workers have been among the hardest hit by the economic downturn associated with the COVID-19 pandemic

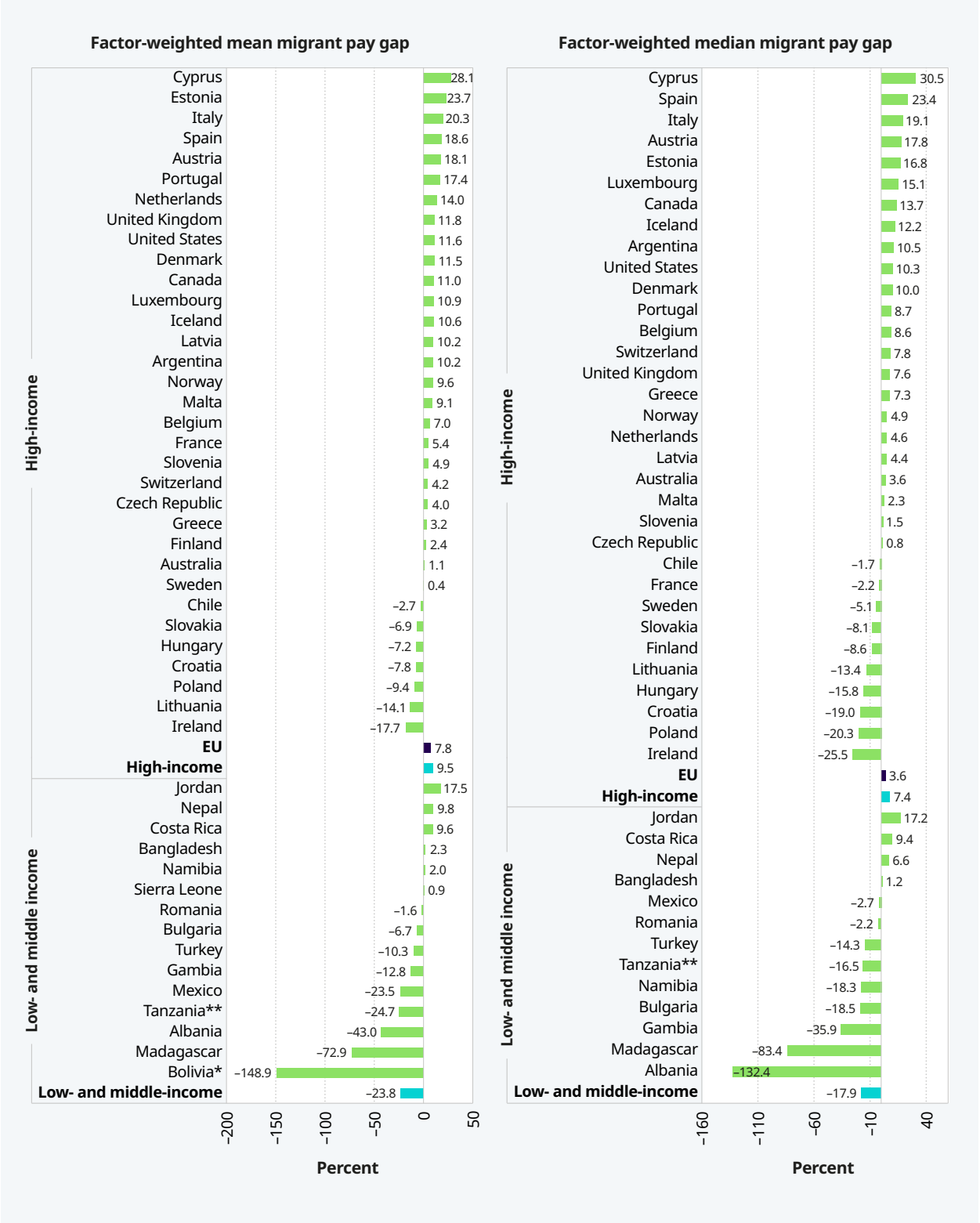
Few recent data that covers the COVID-19 pandemic period shows that migrant workers, likewise nationals, have suffered losses in the labour market, including employment losses, a decline in the aggregate number of hours worked and a decline in average earnings for those that remained in employment by October 2020 compared to pre-pandemic periods. Box 3 presents the situation of migrant workers in Mexico and the United States both before and after the onset of the COVID-19 pandemic.

3.4. A complementary measure: Factor-weighted migrant pay gap

To account for composition effects in estimating the migrant pay gap, the report follows the methods used in the ILO *Global Wage Report 2018/19* to generate a *factor-weighted* migrant pay gap[57]. The factor-weighted migrant pay gap removes a

57 It is important to emphasize that the factor-weighted migrant pay gap is not equivalent to an estimate of adjusted (unexplained) migrant pay gap: the latter requires the use of other techniques, for example the identification of a counterfactual wage distribution, in order to identify and exclude the part of the gap arising from differences in labour market endowments of migrant workers and nationals. This issue is addressed in the next section (in particular, see section 3.5).

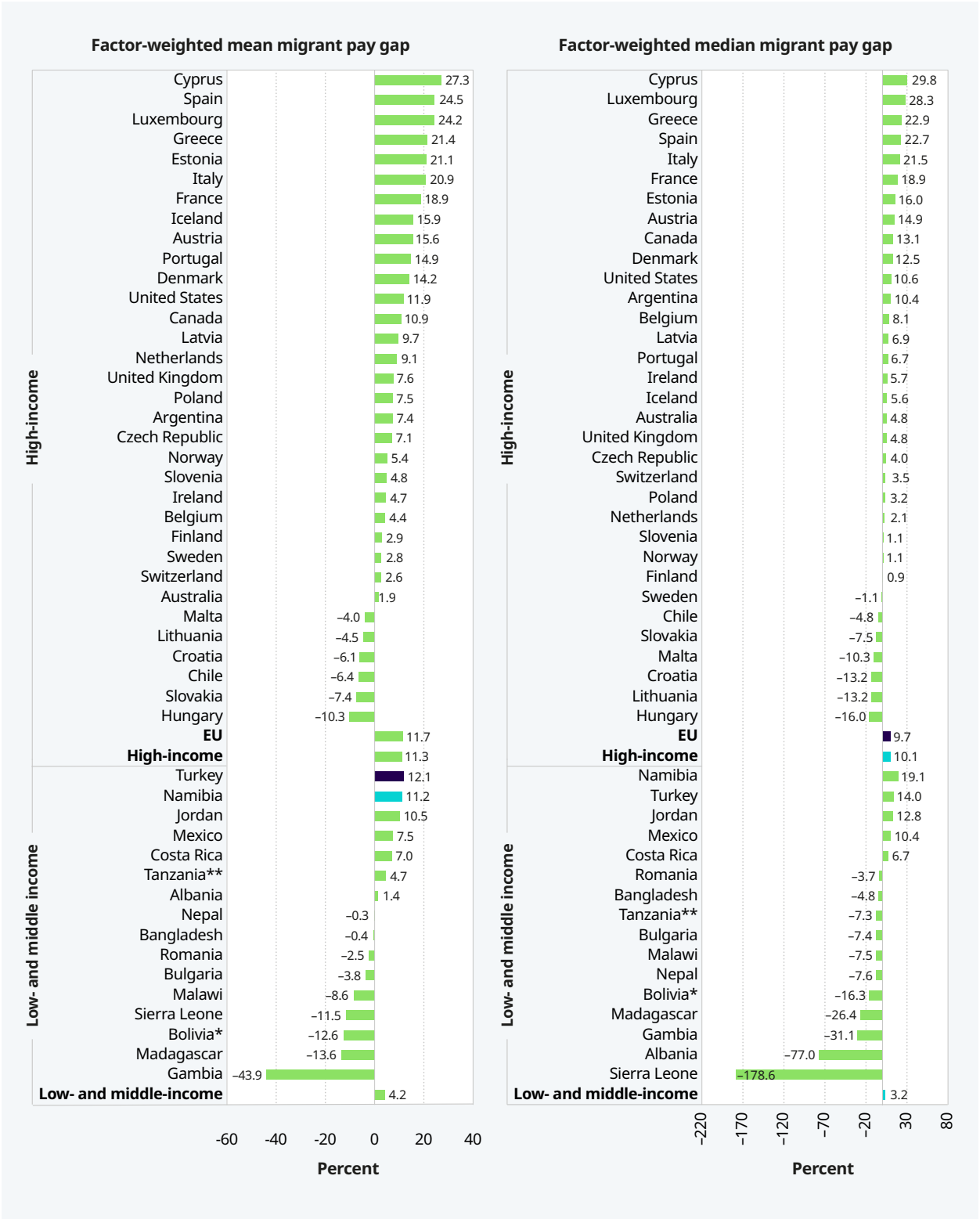
▶ Figure 25: Factor-weighted migrant pay gaps using hourly wages, latest years



Note: EU, high-income, and low- and middle-income estimates are the averages of the European Union, the sample of high-income countries, and low- and middle-income countries, respectively. Averages are weighted by the number of wage employees in each country. * the Plurinational State of Bolivia; ** the United Republic of Tanzania.

Source: ILO estimates based on survey data provided by national sources (see Appendix II).

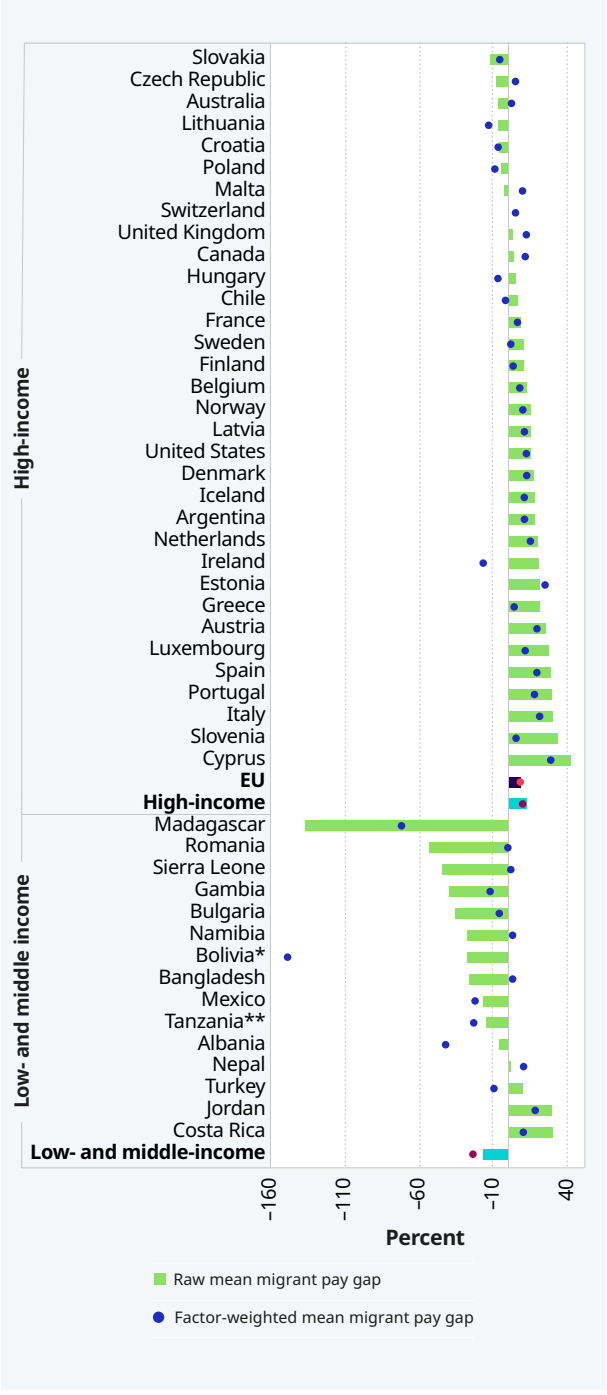
▶ Figure 26: Factor-weighted migrant pay gaps using monthly earnings, latest years



Note: EU, high-income, and low- and middle-income estimates are the averages of the European Union, the sample of high-income countries, and low- and middle-income countries, respectively. Averages are weighted by the number of wage employees in each country. * the Plurinational State of Bolivia; ** the United Republic of Tanzania.

Source: ILO estimates based on survey data provided by national sources (see Appendix II).

▶ **Figure 27: Comparing the raw migrant pay gap with the factor-weighted migrant pay gap using mean hourly wages, latest years**



Note: EU, high-income, and low- and middle-income estimates are the averages of the European Union, the sample of high-income countries, and low- and middle-income countries, respectively. Averages are weighted by the number of wage employees in each country. * the Plurinational State of Bolivia; ** the United Republic of Tanzania.

Source: ILO estimates based on survey data provided by national sources (see Appendix II).

significant part of the composition effects caused by the existence of clusters in the wage or earnings distribution of wage workers. In essence, migrant and non-migrant wage workers are somewhat grouped into homogeneous subgroups based on selected observed characteristics (or factors), and then the migrant pay gap is estimated for each of the subgroups. A weighted sum of all the subgroups' specific pay gaps is estimated to obtain the factor-weighted pay gap, with the weights reflecting the size of each subgroup in the population.

Drawing from the human capital model (Mincer, 1974) and the *Global Wage Report 2018/19*, education, labour market experience, and gender are chosen as three factors that together can pick up a major part of the composition effects in estimating the migrant pay gap. Education and experience (with education mirroring occupational skills and age serving as a proxy for experience) are two important indicators of the job profile of wage employees. It is acknowledged that women and men differ in their labour market participation and working hours (see table 4 and figures 3 and 12). Furthermore, women wage employees are more likely than men to work in the informal economy. Whereas "education" and "age" are in line with the human capital model, the inclusion of "gender" as a third factor incorporates a specific gender focus to better capture the composition effects underlying women's and men's respective modes of participation and experience in the labour market.

The factor-weighted approach produces similar mean migrant pay gap estimates compared to the standard approach

Figures 25 and 26 present the results of applying the factor-weighted approach to the studied countries using hourly wages and monthly earnings. To see how the factor-weighted mean migrant pay gap compares with the raw mean migrant pay gap based on the standard approach in section 3.2, the results from both approaches are plotted against each other. Figure 27 presents the result of this comparison.

Clearly, the factor-weighted method has an impact on the migrant pay gap estimates in each country, particularly in terms of size. In most HICs, the factor-weighted migrant pay gap is similar to the migrant pay gap based on the standard approach.

On average, the report estimates that the factor-weighted migrant pay gap (based on mean hourly wages) is approximately 9.5 per cent in the sample of HICs and 7.8 per cent in the EU, which are similar to the estimates based on the standard approach (12.6 per cent in the sample of HICs and 8.6 per cent in the EU) (figures 25 and 27). The factor-weighted estimates based on median hourly wages is estimated at 7.4 per cent in the sample of HICs and 3.6 per cent in the EU. Estimates based on monthly earnings are also similar to estimates based on the standard approach. There are of course wide variations across the studied countries and across the type of pay used. The mean hourly migrant pay gap based on the factor-weighted approach, for example, is lowest in Ireland (–17.7 per cent, where the standard approach produces an estimate of 20.6 per cent) and highest in Cyprus (28.1 per cent, where the standard approach produces an estimate of 42.1 per cent), among the studied HICs. The factor-weighted median migrant pay gap based on hourly wages ranges from –10.3 per cent in Hungary to 27.3 per cent in Cyprus, among the studied HICs.

In the sample of LMICs, on the other hand, the factor-weighted approach produces an overall mean migrant pay gap (based on hourly wages) of –23.8 per cent compared to –17.3 per cent when based on the standard approach, and overall median migrant pay gap (based on hourly wages) of –17.9 per cent compared to –7.5 per cent when based on the standard approach. In terms of monthly income, the factor weighted approach produces an overall mean monthly migrant pay gap of 4.2 per cent (compared to –19.1 per cent, when based on the standard approach) and an overall median monthly migrant pay gap of 3.2 per cent (compared to –9.1 per cent, when based on the standard approach). Clearly, there are large variations across the studied LMICs and across the type of pay used, with the factor-weighted mean migrant pay gap, based on hourly wages, for example, ranging from –148.9 per cent in the Plurinational State of Bolivia (compared to –30.0 per cent , when based on the standard approach) to 17.5 per cent in Jordan (compared to 29.5 per cent from the standard approach).

3.5. What factors lie behind the migrant pay gap?

Why do migrant workers generally earn less than nationals, especially in most HICs and some LMICs? The report finds that, education, years of experience, and other observed labour market characteristics explain a relatively small part of the migrant pay gap. In many countries, the migrant pay gap remains significantly high even after accounting for the factors that normally explain differences in wages between individuals. In other words, the unexplained part of the migrant pay gap largely dominates the explained part in most countries, regardless of income group. On average, the report shows that about 10 percentage points of the weighted migrant pay gap of approximately 12.6 per cent (based on average hourly wages) in the sample of HICs remains unexplained by observed labour market characteristics, while nearly all the 17.3 per cent of the pay gap in favour of migrant workers in the sample of LMICs is unexplained. Possible reasons for this (particularly in HICs), among others, include: (i) the fact that migrant workers in HICs tend to have lower wage returns to their education relative to nationals, even when the migrant worker and the national work in the same occupational category; (ii) skills mismatch among migrant workers in HICs due to the fact that migrants face significant barriers transferring their skills and experience across countries; and (iii) discriminatory practices against migrant workers, including non-compliance with the principle of "equal pay for work of equal value".

The following sections in Chapter 3 attempt to answer this question by first, estimating the migrant pay gap at different points in the hourly wage distribution, which sheds light on the potential impact of different targeted policies on the overall migrant pay gap. It is thus important to know where in the wage distribution the migrant pay gap is widest. To complement this information, the chapter looks into the proportion of migrant workers in different parts of the wage distribution, showing the extent to which migrant workers are over-represented at the lower end of the wage distribution, or under-represented at the upper end. Second, the migrant pay gap is decomposed, at different parts of the wage distribution, into a part that can be "explained" by differences in the labour market attributes of migrant workers and nationals and a part that is "unexplained" by such characteristics. Third and finally, factors contributing to the unexplained component of the migrant pay gap, including the lower returns to education of migrant workers within the same occupations are examined.

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3.5.1. Estimating the migrant pay gap across the hourly wage distribution

This section analyses the migrant pay gap at different points in the hourly wage distribution; in particular, at each of the equally-sized ten deciles of wage distribution (from the bottom 10 per cent wage earners up to the top 10 per cent earners). This estimation is a useful tool that can shed light on the need for targeted policies to narrow the migrant pay gap. For example, introducing and/or enforcing minimum wages with broad legal coverage could help reduce the pay gap at the lower end of the wage distribution; while collective agreements that include provisions on equal pay and pay transparency could have a similar effect in the middle and upper ends of the wage distribution.

Figure A.4 (see Appendix IV) shows the migrant pay gap at each decile of the hourly wage distribution for 48 of the 49 studied countries, comparing this with the mean hourly pay gap for each country. The first observation is that the migrant pay gap varies across the wage distribution in each country. The following patterns appear to stand out. First, for some countries, there is a tendency for the migrant pay gap to be strikingly high at the bottom deciles, but it declines as it moves from the lower to upper ends in the hourly wage distribution. This could possibly imply non-compliance with or non-inclusion of migrant workers in minimum wage legislation[58]. For example, in Austria, Cyprus, Denmark, France, Norway, Spain, and Sweden, the widening of the pay gap at the first and second deciles of the hourly wage distribution is striking. However, the gap shrinks steadily as it moves from the lower to higher points in the wage distribution. In the case of France, for example, although the mean pay gap is estimated at about 9.0 per cent, the gap at the bottom decile of the wage distribution is approximately 71.1 per cent but declines sharply to about 6.3 per cent at the ninth decile and eventually becomes negative at the tenth decile. This magnitude of disparity have huge policy implications for poverty eradication and for ensuring decent work among low-skilled migrant workers.

Second, in other countries, the migrant pay gap appears to be lower at the bottom and top deciles of the hourly wage distribution but strikingly high in the middle of the distribution. This may possibly reflect under representation of migrant workers in collective representation structures in the middle of the distribution because of difficulties organizing or because nationals dominate the overall representation, a phenomenon that could be exacerbated if migrants are perceived as a low-wage employment threat to nationals (see, e.g., Rubery, 2003). This pattern is common in countries such as Argentina, Belgium, Canada, Iceland, Luxembourg, the Netherlands, and the United States. For example, in the case of the Canada, the migrant pay gap at the bottom and top deciles of the hourly wage distribution are –0.6 per cent and 0.4 per cent, respectively, but increases to about 6.5 per cent in the middle of the distribution (i.e. from the fifth to the eight decile).

Third, and in particular in some LMICs, the migrant pay gap widens and narrows, and reverses in favour of nationals or in favour of migrant workers across the hourly wage distribution. This pattern can give an indication of where in the wage distribution are temporary high-skilled "expatriate" migrant workers potentially located in those countries. In Gambia for example, non-migrant workers tend to earn more than migrant workers from the bottom to the fourth decile of the wage distribution. However, the gap reverses in favour of migrant workers from the fifth to the top decile of the distribution, peaking at the ninth decile where migrant workers earn about 54.8 per cent more than non-migrant workers.

Given that the share of the migrant population is generally small across countries, and that the

58 Exclusion from minimum wage coverage can take many forms. National provisions in force in some countries may explicitly provide for reduced minimum wage rates for migrant workers. Migrant workers could also be excluded because there is no minimum wage for the sector in which they are primarily employed. Likewise, migrants may not benefit from minimum wage coverage because they are not members of a trade union that is a party to the collective agreement covering the sector of activity concerned (see ILO, 2014b).

sampling design of these datasets are not conditioned on migration status, it could be that migrant workers are not well represented at different points in the hourly wage distribution. This could lead to "small sample bias" in the estimates of the migrant pay gap across the wage distribution. Verification of this is shown in figure A-5 (see Appendix IV) which shows the respective shares of migrant workers and nationals at different locations in the hourly wage distribution. Figure A-5 further disaggregates the share of migrant workers by sex. In most countries, a sufficient proportion of migrant workers are located in each decile of the hourly wage distribution. In a number of countries, migrant workers are disproportionately concentrated at the first and second deciles, but as we move from lower to higher points in the wage distribution, their proportion declines, in some cases sharply.

For example, migrant workers make up about 93 per cent of the bottom 1 per cent of wage earners in Cyprus (all of whom are migrant women), but only about 11 per cent of the top 1 per cent. In Italy, migrant workers account for more than 23 per cent of the bottom 1 per cent wage earners but just about 3 per cent of the top 1 per cent. Estimates of the migrant pay gap for these countries (figure A-4) indicate that the wage gap is much wider at the bottom of the wage distribution, where migrant workers are concentrated (many of whom are migrant women). However, in countries such as Australia, Malta and Switzerland, the share of migrant workers increases as we move from the bottom to top ends of the wage distribution. Estimating migrant pay gaps at different points in the wage distribution can be more informative than using simple summary measures such as the mean or median wage, especially when migrant workers are concentrated at certain points in the wage distribution.

3.5.2. What part of the migrant pay gap can be explained by differences in the characteristics of migrant workers and nationals in the labour market?

Decomposing the migrant pay gap into explained and unexplained parts

The next step in understanding the migrant pay gap is to decompose the unadjusted pay gap into "explained" and "unexplained" parts. On the one hand, the report finds that about 10 percentage points of the weighted migrant pay gap of approximately 12.6 per cent (based on average hourly wages) in the sample of HICs remains unexplained by observed labour market characteristics. On the other hand, nearly all the 17.3 per cent of the pay gap in favour of migrant workers in LMICs is unexplained. However, it is significant to add that there are large variations across countries and across the wage distribution. For example, in Cyprus (which has the widest estimated pay gap in the sample of HICs), only about 4.4 percentage points of the pay gap of 42.1 per cent is explained by observed labour market characteristics, which is lower than the roughly 12 percentage points explained gap out of the estimated 34.8 per cent total migrant pay gap in 2010 by the ILO Global Wage Report 2014/15. In the United States, on the other hand, about 10 percentage points of the estimated migrant pay gap of 15.2 per cent is explained by observed labour market characteristics.

As previously defined, the unadjusted pay gap refers to the earnings of nationals (at a given percentile in the wage distribution), minus the earnings of migrant workers (at the same percentile in the distribution). On the one hand, the "explained" part refers to the part of the migrant pay gap that relates to differences in labour market attributes or characteristics of migrant workers and nationals, such as human capital endowments, and job and workplace characteristics. In other words, the explained part takes into account the factors described in table 8: age; experience; education (grouped into four categories); occupational category (managerial, professional, technical, etc.); type of working contract (permanent versus temporary); economic activity (about ten categories, including agriculture, construction, manufacturing, services, etc.); public versus private sector employment; regional location (e.g., urban versus rural); formality; gender; race (in the case of the United States); and work intensity (hours worked). On the other hand, the unexplained part (or wage penalty) is what remains after adjusting for these observable labour market characteristics, which should in principle explain pay differences between migrant workers and nationals. It is important to emphasize that, in this context, the "unexplained" should be understood as not accounted for by the observed labour market characteristics listed in table 8. Similarly, the "explained" should be understood as only accounting for by the observed labour market characteristics listed in this same table. The explained part may still reflect fundamental bias based on observed factors such as

▶ Box 4. Decomposing the migrant pay gap: An illustrative explanation

The decomposition of the migrant pay gap consists of three steps. First, a set of attributes (observed indicators in survey data) are selected on the basis of their relevance to the wage determination process. Table 8 shows the observed attributes and characteristics selected for the decomposition of the migrant pay gap. The selection is based on the availability of these indicators in each of the surveys described in Appendix II. Not all indicators are always available for all countries, and some are exclusive to particular economic contexts (see notes to table 8).

In the second step, econometric techniques are applied, using the observed attributes or characteristics, to generate a counterfactual wage distribution, which represents the wages that migrant workers would earn if they received the same returns to their attributes and characteristics as nationals. This results in three wage distributions: the wage distribution for nationals, the actual wage distribution for migrant workers and the counterfactual wage distribution for migrant workers. The three distributions can be compared at any of their quantiles, for example at the median. Suppose now that at the median, the hourly wage of nationals is 10 coins and that of migrant workers is 8 coins. This would mean that the median migrant pay gap is 20 per cent in favour of nationals. Assume also that at the median, the counterfactual hourly wage is 9 coins. This represents the median wage that migrant workers would earn if, for their actual "average" endowments and attributes, they received the same returns as nationals with similar attributes. Then, the difference between what nationals get (10 coins) and the counterfactual (9 coins) is "explained" by differences in the observed attributes of nationals and migrant workers. The rest, namely the difference between the counterfactual (9 coins) and what migrant workers receive in reality (8 coins) is "unexplained" by the observed differences in attributes. Therefore, the unexplained part is attributable to the fact that migrant workers receive disproportionately lower returns to their labour market endowments and characteristics at the median. The unexplained part is also called the "structural" part of the migrant pay gap.

The construction of the counterfactual helps to identify the fact that migrant workers can have a different wage structure from nationals, not because they have different endowments but because they get different returns to such endowments – hence the word "structural" is sometimes employed to denote the unexplained part of the migrant pay gap. In the example above, the explained and unexplained parts of the migrant pay gap is 1 coin each. In sum, this hypothetical example illustrates that the total median migrant pay gap of 20 per cent can be decomposed into two parts: the explained part (10 per cent) and the unexplained part (10 per cent).

The third and final step in the decomposition consists of simply applying the counterfactual distribution to decompose the migrant pay gap at each quantile into that which can be explained and that which cannot be explained by differences in the observed attributes and characteristics of nationals and migrant workers, as explained in the hypothetical example above.

contractual conditions or personal characteristics including gender or race/ethnicity.

Although labour market institutions and policies (such as minimum wages that aim to benefit all workers) can be designed to cover all paid employees in principle, reducing inequality often requires additional targeted policy action. This part of the report shows that migrant workers sometimes incur "wage penalties" for multiple and complex reasons that differ from one country to another, and that the penalty can occur at different locations in the hourly wage distribution. Understanding the reasons for these wage penalties in the national context, and adopting policies to eliminate them, could make a significant contribution to reducing income inequality and ensuring equal pay for work of equal value regardless of nationality or gender.

Similar to the ILO's *Global Wage Report 2018/19*, this report adapts the decomposition techniques proposed by Fortin, Lemieux and Firpo (2011) to the migrant pay gap. This allows for the identification of explained and unexplained components of the migrant pay gap across the hourly wage distribution. The technique involves three steps. First, a set of observed attributes and characteristics is selected that typically explain differences in wages of migrant workers and nationals (table 8). The second step comprises estimating a "counterfactual" wage distribution for migrant workers. This counterfactual wage distribution represents the

▶ Table 8. Observed labour market endowments, attributes and characteristics for the decomposition of the migrant pay gap

Group	Variables	Notes
Endowments	Age Education (categories) Years of experience	When experience is missing, it is proxied by the difference between age and years of schooling for individuals actively in employment. Countries vary in terms of the number of educational categories, although most will identify four or five (e.g. no education; below primary; lower secondary; high school/vocational; university and above).
Job attributes or Characteristics	Working time Contractual conditions Occupational categories	"Working time" can be a continuous variable or a dummy variable to identify full time versus part time (following the international definition given by the OECD). "Contractual conditions" implies a dummy variable to distinguish between permanent and temporary contracts. The occupational categories for all countries follow the international classification code ISCO-88 or ISCO-08. The following distinctions are made where possible: CEOs, Senior Officials, Managers; Professionals; Technical officers;; Clericals; Service and Sales; Skill Agro; Artisans; Low skills; and Elementary jobs.
Workplace characteristics	Industrial category for production (principal economic activity) Size of the enterprise Public or private sector Regional location Urban versus rural area Formal versus informal employment	The industrial categories for almost all countries follow the industrial classification given by ISIC Rev. 4. The size of the enterprise is usually declared in categories (micro, small, medium and large). A dummy for informality is included independently for workers in the informal economy in countries where informality can be identified in the survey data.
Personal characteristics	Gender Race	Race is available for the United States only.

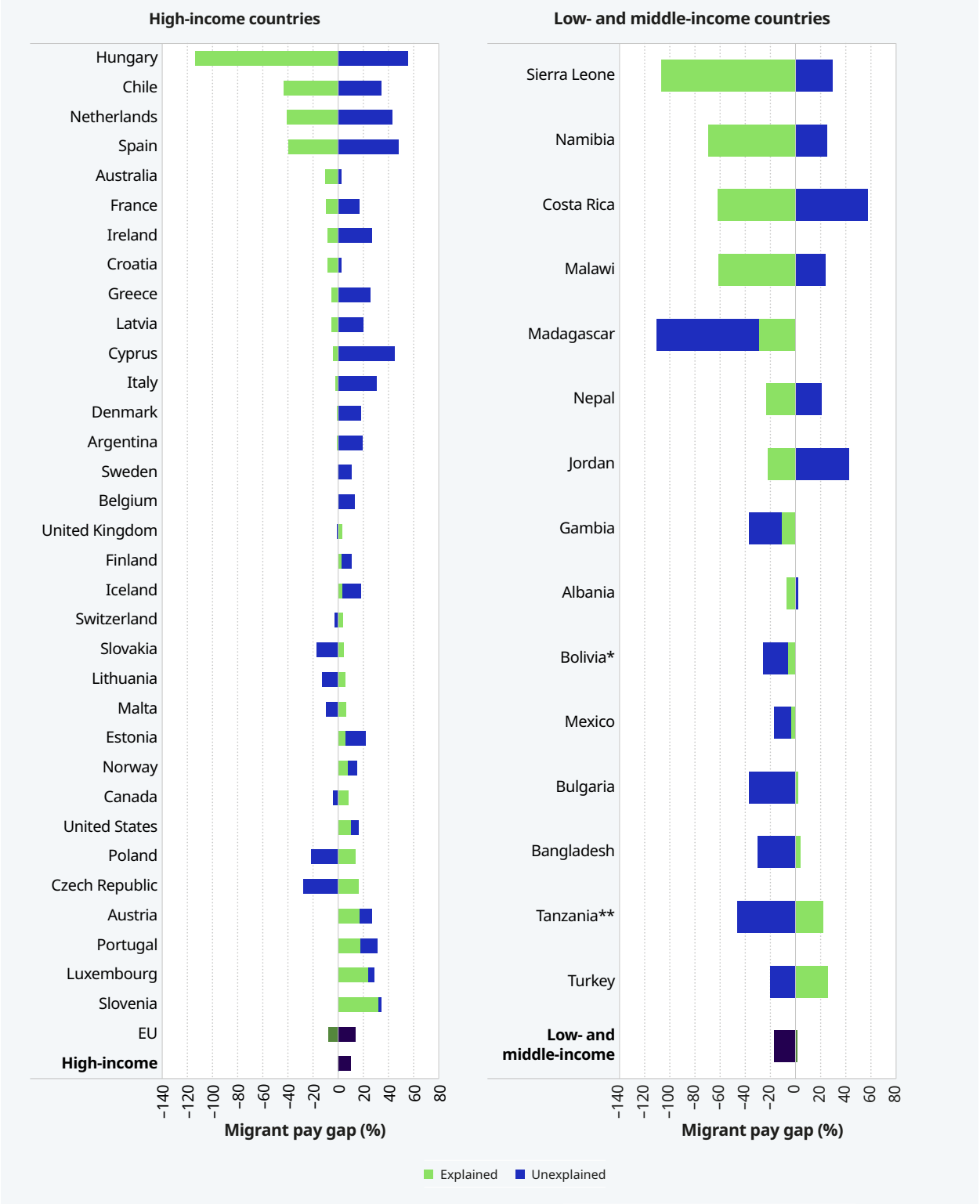
Notes: ISCO = International Standard Classification of Occupations; ISIC = International Standard Industrial Classification of All Economic Activities, OECD = Organization for Economic Co-operation and Development. Not all variables are available for all countries in the data set (e.g. public sector workers are not identified in the countries from the European Union). Most of the following are observed everywhere: age, education, experience, working time, contractual conditions, occupational category, industrial code (principal economic activity) and rural/urban location. Exceptionally, in the case of the United States' Current Population Survey, race is also identified, and a dummy for "white" versus all other races is used in the decomposition of the migrant pay gap for this country. In countries where the variable "occupational category" included a single category for "domestic worker" the latter was included independently as a category under occupations.

wages that migrant workers would earn if they received the same returns to their labour market endowments as nationals. The third step involves using the counterfactual wage distribution to decompose the migrant pay gap into that which can be explained and that which cannot be explained by the observed attributes and characteristics. By this way, the difference between nationals' wage and the counterfactual wage at each decile is the explained gap and the difference between the counterfactual and migrant worker's actual wage is the unexplained gap. Box 4 provides an explanation of how these three steps work in practice and Appendix I lays out the methodology in more detail.

From a policy standpoint, both the explained and unexplained components are important channels through which to redress differences in pay across groups. First, identifying the part of the migrant pay gap that can be explained by labour market characteristics can inform policy-makers in designing policies that target differences in endowments and characteristics of migrant workers and nationals, as well as policies that aim to achieve better integration for migrants in countries of destination. A second issue related to policy is that the size of the unexplained component can suggest that reducing the migrant pay gap may require additional measures to combat pay discrimination and wage penalties for migrant workers, especially migrant women, for instance through promoting legal frameworks and policies conducive to ensuring equal pay for work of equal value.

Based on the decomposition approach used, both the explained and unexplained parts of the migrant pay gap can be either positive or negative. The following interpretation therefore holds. A positive explained migrant pay gap implies that nationals are rewarded higher than migrant workers and this difference in pay is explained by differences in their observed endowments. On the other hand, a negative explained part means that based on their observed endowments, migrant workers would earn more than nationals if they (migrant workers) were to receive same returns to their endowments

▶ **Figure 28: Decomposition of the migrant pay gap at the mean hourly wage into explained and unexplained parts, latest years**



Note: EU, high-income, and low- and middle-income estimates are the averages of the European Union, the sample of high-income countries, and low- and middle-income countries, respectively. Averages are weighted by the number of wage employees in each country. * the Plurinational State of Bolivia; ** the United Republic of Tanzania.

Source: ILO estimates based on survey data provided by national sources (see Appendix II).

▶ Figure 29: The unexplained mean wage differentials between migrant workers and nationals, latest years

Note: The unexplained part of the migrant pay gap, using a counterfactual approach which compares wages of migrant workers to the wages that they would receive if they were nationals with similar characteristics. The same methodology is used in the ILO Global Wage Report 2018/19. Note: EU, high-income, and low- and middle-income estimates are the averages of the European Union, the sample of high-income countries, and low- and middle-income countries, respectively. Averages are weighted by the number of wage employees in each country. * the Plurinational State of Bolivia; ** the United Republic of Tanzania.

Source: ILO estimates based on survey data provided by national sources (see Appendix II).

as nationals (but in reality, migrant workers may earn less). The unexplained part is positive when the returns that migrant workers should get from their endowments are higher than what they receive. It is negative, however, when migrant workers are paid above what they should get on the basis of their observed endowments.

A significant part of the migrant pay gap across the hourly wage distribution remains unexplained

Figure A-6 (see Appendix IV) shows the decomposition of the migrant pay gap at each decile of the hourly wage distribution. Each chart shows two components of the gap at each decile: the explained and unexplained parts. The sum of the two parts at each decile equals the raw gender pay gap at that decile, in principle (see figure A-4).

The report finds that, on average, education and other observed labour market characteristics explain a relatively small part of the migrant pay gap at different locations in the wage distribution. Also, the results show that the relative importance of the explained and unexplained parts of the migrant pay gap across the hourly wage distribution varies across countries. Among HICs, the migrant pay gap is largely unexplained throughout the wage distribution in most countries (for example, Argentina, Belgium, Cyprus and Italy). However, in few countries such as Austria, Australia, Canada, Luxembourg and the United States, a large part of the pay gap is explained by differences in the attributes and characteristics of migrant workers and nationals. In others, for example, Norway and the United Kingdom, the picture is quite different: the migrant pay gap is largely unexplained at lower deciles of the wage distribution, but appears to be partly explained in the upper parts of the distribution.

In the sample of LMICs, the picture is even more mixed. On the one hand, the observed negative migrant pay gap is largely explained throughout the wage distribution in few countries such as Albania and Malawi. On the other hand, the pay gap is unexplained in a number of countries (for example, Bangladesh, Jordan and Madagascar). In countries such as Bolivia, Mexico and the United Republic of Tanzania, the unexplained gap is mostly negative in the upper parts of the wage distribution. This reflects the possibility that migrant workers at the top of the distribution in those countries could receive returns above what they should get on average on the basis of their observed attributes and characteristics.

The explained and unexplained parts of the migrant pay gap: A comparison across countries

This section shows the explained and unexplained parts of the hourly migrant pay gap at the mean rather than across the entire wage distribution as shown in figure A-6. The results are displayed in figures 28 and 29, grouping countries according to their income. Figure 28 presents the explained and unexplained together while figure 29 presents the unexplained pay gap only. The two bars in Figure 28 (explained and unexplained) should sum up to the total unadjusted mean hourly pay gap in figure 17, in principle.

The results show that, on average, the mean migrant pay gap remains largely unexplained by observed differences in education and other observed labour market characteristics of migrant workers and nationals. The unexplained part of the migrant pay gap largely dominates the explained part in most countries, irrespective of income group. On the one hand, the analysis of the data shows that about 10 percentage points of the weighted migrant pay gap of approximately 12.6 per cent (based on average hourly wages) in the sample of HICs remains unexplained by observed labour market characteristics of migrant workers and nationals. On the other hand, nearly all the 17.3 per cent of the pay gap in favour of migrant workers in LMICs is unexplained, on average. However, there are several exceptions, as well as wide variations across countries. Among HICs, differences in observed labour market characteristics have sizeable effects on the migrant pay gap in countries such as Austria, Canada, Luxembourg, Norway, Portugal, Slovenia, the United Kingdom, and the United States, though a significant part remains unexplained. Among LMICs, the same is true of Bangladesh, Costa Rica, Gambia, Jordan, the United Republic of Tanzania, and Turkey. But in most countries, a large part of the migrant pay gap remains unexplained. For example, in Cyprus (which has the widest estimated pay gap in the sample of HICs), only about 4.4 percentage points of the pay gap of 42.1 per cent is explained by observed labour market characteristics of migrant workers and nationals, which is lower than the roughly 12 percentage points explained gap out of the estimated 34.8 per cent total migrant pay gap in 2010 by the ILO Global Wage Report 2014/15. In the United States, on the

other hand, about 10 percentage points of the estimated migrant pay gap of 15.2 per cent is explained by observed labour market characteristics.

3.5.3. Understanding the unexplained part of the migrant pay gap: Selected countries

What lies behind the unexplained part of the migrant pay gap? The decomposition exercise in the previous section shows that much of the gap in earnings remains unexplained by the observed differences in labour market attributes and characteristics of migrant workers and nationals. This section turns to the question of whether migrant workers obtain lower returns to their educational attainments relative to nationals within the same occupation. Migrant workers are more likely than nationals to be attached to particular sectors and occupations in their countries of destination. In what follows, a deeper analysis explores the migrant pay gap in various occupational categories and compares migrant workers' educational levels with nationals' within each occupational category.

Figure A-7 (see Appendix IV) explores this question by comparing the proportions of migrant workers and nationals with the pay gaps and educational attainments within the same occupational category. In the selected sample of 31 countries, the datasets allow to separate workers into six distinct occupational groups: managers (MGR), professionals (PROF), technical (TECH), semi-skilled (SEMI), low-skilled (LOW), and the unskilled (UNS). The charts show that the share of migrant workers in the lower occupational categories (unskilled, low-skilled or semi-skilled) is almost everywhere much higher than the share of migrant workers in the top occupational categories (managers, professionals or technical). For example, in Italy, less than 3 per cent of managers are migrant workers, whereas about 30 per cent of unskilled jobs are occupied by migrant workers. This illustrates "vertical occupational segregation" – the clustering of nationals at the top of occupational hierarchies and of migrant workers at the bottom. This pattern is true for almost all the sample of HICs with the exception of Australia, Canada, Chile and Luxembourg. These differences in occupations between migrant workers and nationals are part of the explained component of the migrant pay gap (see table 9).

However, the same figure shows that within occupational categories and in almost all the HICs, migrant workers score just as high as or even much higher in education than nationals. The line showing the "score in education" for migrant workers is nearly always above the line for nationals in the majority of the sampled countries.[59] Therefore, on average, it appears that migrant workers' educational attainment is similar to or better than that of nationals within each occupational category. In spite of this, the charts also show that for almost all occupational categories and in the majority of the sampled HICs, the migrant pay gap remains positive and sizeable, with few exceptions such as Australia, Chile, Switzerland, and the United Kingdom. This indicates that within occupational categories, migrant workers obtain lower returns to their educational attainments in the majority of the HICs. This may be the result of a range of factors including pay discrimination at the workplace, "horizontal segregation", whereby at the same occupational level (within occupational categories or even occupations themselves) migrant workers and nationals have different job tasks. It would be interesting to look further into returns to education within different sectors rather than occupations and to explore the differences in returns to education for migrant men and women separately.

Table 9 summarizes the results from the previous chapters by showing estimates of the migrant pay gap (based on mean hourly wages), its decomposition, and estimates of migrants' population shares.

59 The "score in education" is a country-specific value that gives everyone a score to indicate his or her relative achievement in education in a given country. For the sample of countries for which "years of education" is not available, individuals declare their educational attainment as a categorical outcome. Typically, there will be about five categories: "no formal education", "less than or equal to primary education", "secondary education without high school diploma", "high school completed, including those with some vocational education or training" and "university studies or above". The "score in education" simply assigns to each individual a value that is related to these categories and increases exponentially for higher educational achievements. The assignment of values is done in a similar fashion as in the ILO's *Global Wage Report 2018/19* (2018a). Thus, individuals in the first and lowest category (no formal education) are assigned a value of 1; in the second category they are assigned a value of 6; and in the next three categories they are assigned values of 9, 16 and 25, respectively. This exponential increase simply aims at emulating the relative values that would have been given if data on the number of years spent in education to achieve a particular level of education existed for these countries. The exponential assignment helps to avoid assuming that the jump between one educational category and the next implies a constant and even effort (which is what the category number alone does). The assigned value is the score that an individual gets to quantify his or her education relative to other wage employees in a given country. For each of the occupational categories, we take the average of these scores in education for migrant workers and for nationals. The charts in the third column in figure A-7 (see Appendix IV) show these estimates.

▶ Table 9. Summary: Migrant share of total working population, migrant share of wage workers, and the mean hourly migrant pay gap

Country Code	Country	Latest year	Migrants' population (%)	Migrants' share of wage workers (%)	Mean hourly migrant pay gap (%)	Factor-weighted mean hourly migrant pay gap (%)	Explained (mean) migrant pay gap (%)	Unexplained (mean) migrant pay gap (%)
High-income								
POL	Poland	2015	0.15	0.21	-4.93	-9.35	13.36	-21.11
SVK	Slovakia	2015	0.16	0.14	-12.55	-6.92	3.75	-16.93
HUN	Hungary	2015	0.49	0.58	5.33	-7.20	-113.85	55.73
HRV	Croatia	2015	0.59	0.56	-6.24	-7.81	-8.37	1.97
LTU	Lithuania	2015	0.59	0.53	-6.76	-14.11	5.11	-12.51
CZE	Czech Republic	2015	1.64	1.29	-8.09	4.04	15.72	-28.26
PRT	Portugal	2015	2.14	2.19	28.91	17.38	17.71	13.62
FIN	Finland	2015	2.93	2.22	10.69	2.42	2.80	8.12
NLD	Netherlands	2015	2.96	2.64	19.86	14.00	-40.74	43.06
MLT	Malta	2015	3.13	2.64	-2.67	9.09	6.12	-9.37
SVN	Slovenia	2015	3.61	4.40	33.26	4.86	32.72	0.80
NOR	Norway	2015	4.67	4.93	15.03	9.62	7.49	8.15
CHL	Chile	2017	4.71	6.71	6.44	-2.74	-43.41	34.76
DNK	Denmark	2015	4.86	4.43	17.32	11.48	-1.13	18.24
FRA	France	2015	4.87	4.29	8.70	5.38	-9.93	16.95
SWE	Sweden	2015	5.45	4.23	10.51	0.36	-0.37	10.84
ISL	Iceland	2015	5.91	5.92	17.84	10.57	3.06	15.25
ARG	Argentina	2018	6.35	6.36	18.07	10.20	-1.01	18.89
GRC	Greece	2015	6.46	8.84	21.16	3.23	-5.65	25.37
ITA	Italy	2015	8.90	11.23	29.59	20.33	-2.02	30.98
ESP	Spain	2015	8.94	9.01	28.27	18.63	-39.71	48.65
USA	United States	2018	9.06	8.95	15.27	11.58	10.00	5.86
GBR	United Kingdom	2015	9.70	9.28	2.72	11.84	2.73	-0.01
BEL	Belgium	2015	10.36	8.83	12.73	7.04	1.15	11.71
IRL	Ireland	2015	11.92	13.52	20.58	-17.66	-8.75	26.97
AUT	Austria	2015	14.44	12.90	25.26	18.08	17.29	9.64
LVA	Latvia	2015	14.67	13.72	15.07	10.22	-5.62	19.59
EST	Estonia	2015	14.83	13.39	21.00	23.68	6.16	15.82
CYP	Cyprus	2015	16.58	19.53	42.06	28.12	-4.45	44.53
CAN	Canada	2018	24.80	24.13	3.98	10.98	7.58	-3.89
AUS	Australia	2017	27.35	26.37	-6.89	1.08	-10.21	3.01
CHE	Switzerland	2016	28.71	29.31	0.32	4.23	3.33	-3.12
LUX	Luxembourg	2015	43.13	46.99	27.34	10.88	23.96	4.44
	EU average		**6.00**	**6.03**	**8.61**	**7.82**	**-7.87**	**14.24**
	High-income average		**9.27**	**9.22**	**12.56**	**9.51**	**0.18**	**10.08**

Country Code	Country	Latest year	Migrants' population (%)	Migrants' share of wage workers (%)	Mean hourly migrant pay gap (%)	Factor-weighted mean hourly migrant pay gap (%)	Explained (mean) migrant pay gap (%)	Unexplained (mean) migrant pay gap (%)
Low- and middle-income								
ROU	Romania	2015	0.10	0.14	-53.61	-1.59		
BGD	Bangladesh	2017	0.15	0.13	-26.35	2.27	3.44	-30.85
MDG	Madagascar	2012	0.20	0.31	-136.72	-72.92	-29.55	-82.73
BOL	Bolivia*	2017	0.31	0.31	-27.95	-148.95	-6.69	-19.93
NPL	Nepal	2017	0.39	0.77	1.53	9.82	-23.32	20.15
MEX	Mexico	2018	0.51	0.47	-17.23	-23.46	-3.77	-12.96
BGR	Bulgaria	2015	0.60	0.39	-35.74	-6.71	1.48	-37.78
SLE	Sierra Leone	2014	1.03	1.22	-44.82	0.88	-106.47	29.86
MWI	Malawi	2013	1.30	1.33	-23.07	N/A	-61.12	23.62
ALB	Albania	2013	1.96	1.57	-6.19	-42.99	-6.96	0.72
TZA	Tanzania**	2014	2.22	4.66	-15.18	-24.69	21.36	-46.47
TUR	Turkey	2017	2.80	3.10	9.95	-10.33	25.24	-20.45
NAM	Namibia	2016	4.39	5.43	-27.96	1.97	-69.54	24.52
GMB	Gambia	2018	5.74	5.90	-39.90	-12.81	-11.29	-25.71
CRI	Costa Rica	2018	10.80	12.82	30.06	9.61	-62.18	56.88
JOR	Jordan	2016	33.89	44.34	29.50	17.54	-21.93	42.18
	Low- and middle-income average		**1.07**	**1.22**	**-17.34**	**-23.83**	**0.61**	**-17.70**

Note: The table combines estimates from table 1 and figures 17, 25 and 28. Estimates are based on the working age population only (i.e. adults with ages 16-70) and cover a sample of 49 countries for which micro data are available (see Section 2.2 for description of geographical coverage). EU, high-income, and low- and middle-income estimates are the averages of the European Union, the sample of high-income countries, and low- and middle-income countries, respectively. Averages are weighted by the number of wage employees in each country. N/A = Not available. * the Plurinational State of Bolivia; ** the United Republic of Tanzania.

Source: ILO estimates based on survey data provided by national sources (see Appendix II).

Chapter 4

Simulations

Chapter 4 – Simulations

This chapter of the report focuses on the explained part of the migrant pay gap by filtering out the unexplained part and comparing the counterfactual wage distribution of migrant workers to the wage distribution of non-migrant workers.

The report finds that the migrant pay gap would generally stay low if the unexplained part of the migrant pay gap is eliminated, and migrant workers were to receive similar returns to their labour market characteristics as nationals. Chapter 4 demonstrates that, measures that eliminate the unexplained part of the migrant pay gap can help to significantly reduce wage inequalities; working poverty among migrant workers, especially migrant women; as well as the aggregate gender pay gap between men and women across countries. Thus, in countries where the unexplained part of the migrant pay gap is significantly high, eliminating this gap would help enhance skills and jobs matching for men and women migrant workers, and promote equality as well as economic productivity and development across countries.

4.1. The counterfactual wage structure of migrant workers

Figure A-8 (see Appendix IV) compares the wage structures of migrant workers with that of nationals. The difference between this figure and figure 16 (which compares the actual wage distributions of migrant workers and nationals), is that figure A-8 plots both the actual and counterfactual wage distributions of migrant workers and compares the two distributions with the wage distribution of nationals. The counterfactual wage distribution reflects the wage structure of migrant workers if they were equally remunerated as nationals, according to the observable labour market characteristics described in table 8 (that is, taking into account attributes such as, education, experience, occupation, and gender).

The figure shows that, unlike the actual wage structure of migrant workers, the counterfactual wage distribution of migrant workers tends to be closer to the wage distribution of nationals in most countries. This implies and reinforces the general trend in section 3.5.2, that the wage gap between nationals and migrant workers explained by differences in labour market attributes or characteristics is narrower compared to the unadjusted wage gap. For example, in countries such as Belgium, Cyprus, Luxembourg, and the United States (among the sample of HICs), and Jordan (among the sample of LMICs), the counterfactual wage structure of migrant workers shifts almost entirely from the far left towards the wage structure of nationals. In other countries such as Argentina, France, and Norway, there appears to be convergence of the wage structures of nationals and migrant workers indicating a near disappearance of the wage gap.

4.2. The migrant pay gap before and after eliminating the unexplained part of the migrant pay gap

The migrant pay gap would generally stay narrower if migrant workers were to receive similar returns to their labour market attributes or characteristics as nationals. Once attributes and characteristics listed in table 8 are taken into account and any remaining unexplained pay gap is eliminated, in the sample of HICs, the mean migrant pay gap nearly disappears (for example, in Argentina, Belgium, Denmark, Finland, Italy, and Sweden) or reverses in favour of migrant workers (as in Chile, Cyprus, France, Greece, Hungary, Ireland, Latvia, the Netherlands, and Spain) (figure 30). It declines substantially but remains largely explained in Austria, Canada, Luxembourg, Portugal, Slovenia, Switzerland, and the United States. On average, the migrant pay gap across the sample of HICs declines substantially from approximately 12.6 per cent to 0.2 per cent, when the unexplained part is eliminated. This implies that, on average, the large positive migrant pay gap in the sample of HICs is mostly unexplained by observed labour market differences between nationals and migrant workers. In the EU, the migrant pay gap reverses from about 8.6 per cent to approximately –7.9 per cent, on average. Migrant workers within the EU would in fact earn about 7.9 per cent higher than nationals, on average, if wages were set according to observed labour market characteristics.

Among the sample of LMICs, the pay gap remains negative and partly explained in eight countries

▶ **Figure 30: The migrant pay gap before and after eliminating the unexplained part of the pay gap in studied economies (based on mean hourly wages), latest years**

Note: EU, high-income, and low- and middle-income estimates are the averages of the European Union, the sample of high-income countries, and low- and middle-income countries, respectively. Averages are weighted by the number of wage employees in each country. * the Plurinational State of Bolivia; ** the United Republic of Tanzania.

Source: ILO estimates based on survey data provided by national sources (see Appendix II).

Manolada, Ilia, Greece – March 3, 2016: Immigrant seasonal farm worker picks and packages strawberries directly into boxes in the Manolada of southern Greece. © shutterstock.com

(Albania, the Plurinational State of Bolivia, the Gambia, Madagascar, Malawi, Mexico, Namibia, and Sierra Leone). It remains positive only in Turkey. It reverses from negative to positive in Bangladesh, Bulgaria, and the United Republic of Tanzania; and from positive to negative in Costa Rica, Jordan, and Nepal.

4.3. Measures to eliminate the unexplained part of the migrant pay gap can help reduce working poverty among migrant workers

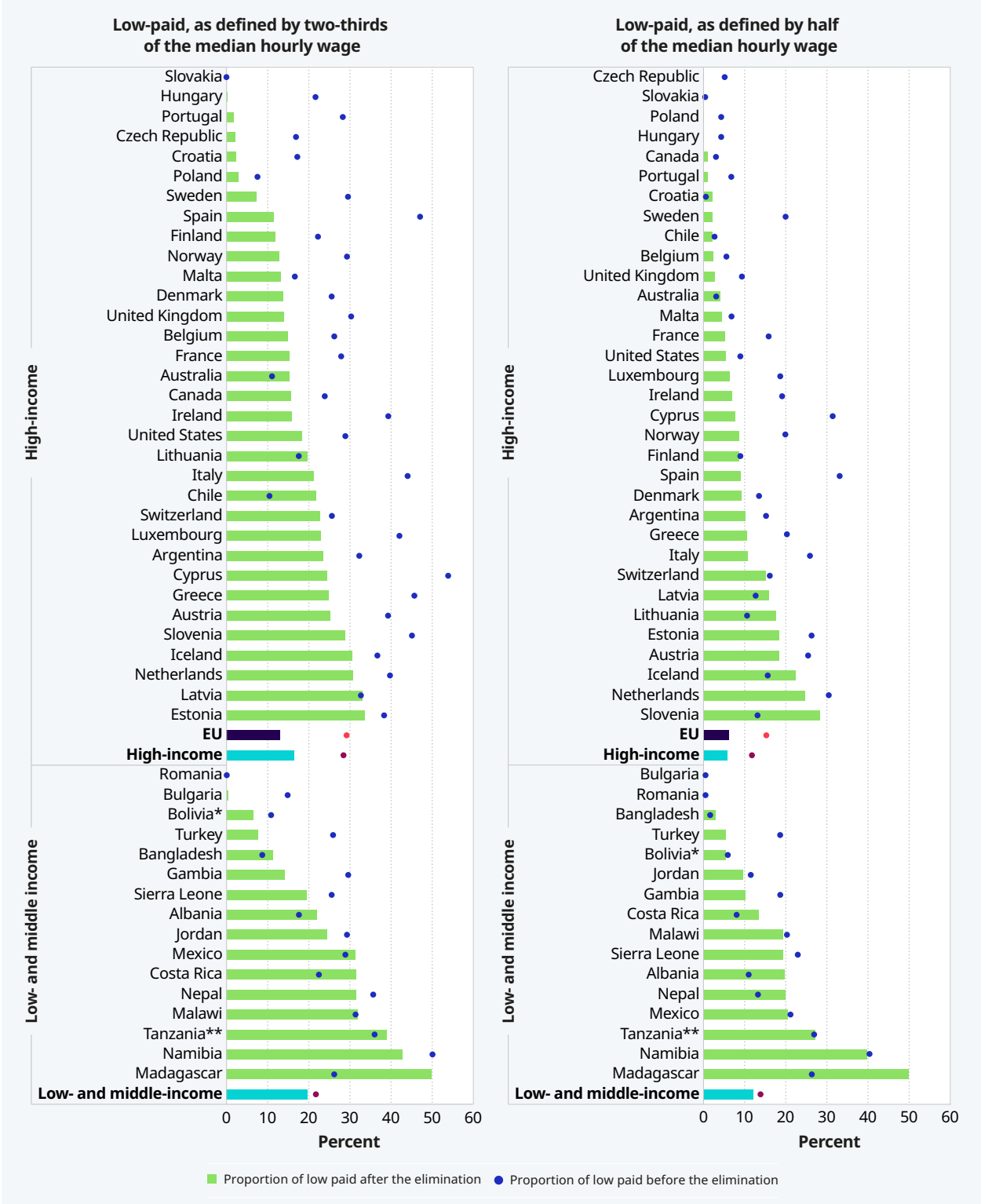
This section analyses the effect of eliminating the unexplained part of the migrant pay gap on low-paid migrant workers. The proportion of low-paid migrant workers before and after eliminating the unexplained part of the migrant pay gap can be looked at using two measures: 1) the proportion of migrant workers earning less than two-thirds of the median hourly wage; and 2) the proportion earning less than half of the median hourly wage. The figure and table below demonstrate that the rate of working poverty among migrant workers, and in particular women migrant workers, would decline substantially if the unexplained part of the migrant pay gap is eliminated and migrant workers were to be remunerated equally as nationals based on their labour market attributes and characteristics.

Figure 31 shows the proportion of low-paid workers among the total migrant workers before and after eliminating the unexplained migrant pay penalty. The weighted proportion of low-paid migrant workers would decline by more than 42 per cent (from about 28.4 per cent to 16.4 per cent) in the sample of HICs, by more than half (from about 29.0 per cent to 13.1 per cent) among the EU Member States, and about 8 per cent (from about 21.5 per cent to 19.7 per cent) in the sample of LMICs, with variations across countries, when working poverty is defined by "the proportion of migrant workers earning less than two-thirds of the median hourly wage". For example, the proportion of low-paid migrant workers would reduce from about 53.6 per cent to 24.4 per cent in Cyprus, from about 28.0 per cent in to 1.7 per cent in Portugal, and from about 46.6 per cent to 11.4 per cent in Spain.

When a more extreme measure of working poverty is applied – the proportion of migrant workers earning less than half of the median hourly wage –, the decline in the proportion of low-paid migrant workers would be much higher than the former measure if the unexplained part of the migrant pay gap is eliminated. The proportion of low-paid migrant workers would decline, on average, by roughly 49 per cent in the sample of HICs (from about 11.5 per cent to 5.9 per cent), by about 59 per cent in the EU (from around 15.0 per cent to 6.2 per cent), and about 12 per cent in the sample of LMICs (from about 13.8 per cent to 12.2 per cent).

Table 10 shows the estimates in figure 31, disaggregated by sex. In HICs and in the EU, eliminating the unexplained migrant pay gap reduces the proportion of working poverty among both men and women migrant workers, though the decline is more profound for migrant women. The incidence of low-paid workers among migrant women in the sample of HICs and the EU would decline from about 35.1 per cent to 21.2 per cent and from about 30.3 per cent to 15.2 per cent on average, respectively, when working poverty is defined by earning less than two-thirds of the median hourly wage. On the other hand, the incidence of low-paid workers among migrant men would decline from about 23.9 per cent to 16.1 per cent in the sample of HICs, and from about 27.5 per cent to 20.4 per cent in the EU, using the same measure of working poverty.

▶ **Figure 31: The proportion of working poor among migrant workers before and after eliminating the unexplained part of the migrant pay gap, latest years**



Note: EU, high-income, and low- and middle-income estimates are the averages of the European Union, the sample of high-income countries, and low- and middle-income countries, respectively. Averages are weighted by the number of wage employees in each country. * the Plurinational State of Bolivia; ** the United Republic of Tanzania.

Source: ILO estimates based on survey data provided by national sources (see Appendix II).

▶ Table 10. The share of low-paid workers among migrant workers before and after eliminating the unexplained part of the migrant pay gap, by sex, latest years

A. Using less than two-thirds of the median hourly wage as the definition of low pay

Income group	Country	Before			After		
		Total %	Women %	Men %	Total %	Women %	Men %
High-income	Slovakia	0.0	0.0	0.0	0.0	0.0	0.0
	Poland	7.3	7.1	7.4	3.0	0.0	32.0
	Chile	10.1	11.9	8.5	21.8	28.5	15.3
	Australia	10.8	14.9	7.2	15.3	22.6	7.8
	Malta	16.4	21.3	12.0	13.2	12.0	14.7
	Czech Republic	16.5	23.3	11.5	2.1	1.6	3.4
	Croatia	17.0	30.7	2.4	2.2	5.0	0.2
	Lithuania	17.3	29.0	10.9	19.6	3.4	38.6
	Finland	21.9	22.5	21.6	11.8	14.7	9.1
	Canada	23.5	28.7	18.5	15.6	18.7	12.7
	Denmark	25.2	28.2	22.3	13.8	11.0	17.9
	Switzerland	25.4	32.7	18.7	22.8	28.4	17.2
	Belgium	26.1	30.2	22.8	14.9	20.8	10.3
	France	27.6	27.4	27.7	15.3	8.3	28.6
	Portugal	28.0	35.8	18.0	1.7	1.5	1.9
	United States	28.7	41.6	20.7	18.2	25.8	11.0
	Norway	29.2	31.1	27.5	12.9	15.6	10.8
	Sweden	29.3	31.6	27.5	7.3	2.9	17.6
	United Kingdom	30.2	32.5	27.9	13.9	14.3	13.6
	Argentina	32.1	32.3	31.9	23.6	20.7	25.7
	Latvia	32.3	40.6	25.5	33.1	39.4	24.6
	Iceland	36.5	41.2	31.6	30.6	55.6	5.9
	Estonia	38.0	51.5	29.0	33.7	51.5	22.5
	Ireland	39.0	35.1	42.7	15.9	13.0	19.2
	Austria	39.1	42.5	36.2	25.2	31.9	17.9
	Netherlands	39.5	35.6	43.9	30.7	62.0	17.1
	Luxembourg	41.7	35.4	46.7	23.0	25.8	20.3
	Italy	43.8	46.4	41.3	21.3	22.9	19.9
	Slovenia	44.8	42.2	45.6	28.9	52.2	3.6
	Greece	45.5	48.1	43.4	24.8	24.5	25.1
	Spain	46.6	46.7	46.6	11.4	6.7	45.7
	Cyprus	53.6	61.7	42.1	24.4	19.4	29.3
	EU average	**29.0**	**30.3**	**27.5**	**13.1**	**15.2**	**20.4**
	High-income average	**28.4**	**35.1**	**23.9**	**16.4**	**21.2**	**16.1**

B. Using less than half of the median hourly wage as the definition of low pay

Income group	Country	Before			After		
		Total %	Women %	Men %	Total %	Women %	Men %
High-income	Slovakia	0.0	0.0	0.0	0.0	0.0	0.0
	Croatia	0.0	0.0	0.0	2.1	5.0	0.0
	Chile	2.5	2.8	2.1	2.2	2.4	2.0
	Canada	2.6	3.3	2.0	1.0	1.0	0.9
	Australia	2.8	3.7	1.9	4.2	6.9	1.3
	Poland	3.8	7.1	2.3	0.0	0.0	0.1
	Czech Republic	4.7	8.1	2.3	0.0	0.0	0.0
	Belgium	5.3	7.0	3.9	2.4	3.2	1.8
	Portugal	6.4	5.0	8.2	1.0	1.2	0.8
	Malta	6.6	6.1	7.0	4.4	3.6	5.4
	United States	8.6	13.3	5.7	5.5	8.1	2.9
	Finland	8.8	9.0	8.8	8.8	12.9	4.9
	United Kingdom	9.1	9.4	8.7	2.8	3.2	2.6
	Lithuania	10.3	20.4	4.8	17.7	0.0	38.5
	Latvia	12.7	14.5	11.2	16.0	17.7	13.7
	Slovenia	13.1	13.9	12.8	28.3	52.0	2.7
	Denmark	13.5	11.9	15.0	9.2	7.5	11.8
	Argentina	14.9	15.4	14.5	10.1	9.3	10.7
	France	15.3	14.4	16.2	5.2	4.1	7.3
	Iceland	15.4	17.5	13.2	22.4	43.0	2.0
	Switzerland	16.0	19.1	13.2	15.2	16.4	14.1
	Luxembourg	18.5	17.4	19.3	6.3	7.0	5.7
	Ireland	18.9	21.9	16.1	7.0	6.6	7.6
	Sweden	19.9	22.0	18.2	2.2	0.8	5.4
	Norway	19.9	23.3	16.8	8.7	11.0	7.0
	Greece	19.9	23.4	17.1	10.6	11.3	10.1
	Austria	25.3	24.2	26.2	18.5	23.2	13.4
	Italy	25.4	26.7	24.3	10.7	11.2	10.3
	Estonia	26.3	32.9	21.8	18.4	18.1	18.6
	Netherlands	30.3	29.6	31.1	24.7	44.8	16.0
	Cyprus	31.2	40.9	17.5	7.7	9.6	6.0
	Spain	32.9	32.8	32.9	9.0	5.5	34.7
	EU	**15.0**	**15.8**	**14.5**	**6.2**	**8.9**	**8.6**
	High-income	**11.5**	**14.1**	**9.9**	**5.9**	**8.4**	**5.8**

A. Using less than two-thirds of the median hourly wage as the definition of low pay

Income group	Country	Before			After		
		Total %	Women %	Men %	Total %	Women %	Men %
Low- and middle-income	Romania	0.0	0.0	0.0	0.0	0.0	0.0
	Bangladesh	8.8	11.3	8.0	11.3	14.1	10.4
	Bolivia*	10.5	28.1	0.0	6.6	32.0	0.6
	Bulgaria	14.5	23.2	0.0	0.4	0.5	0.0
	Albania	17.3	14.6	18.7	22.0	8.3	26.1
	Costa Rica	22.4	26.2	20.0	31.5	25.9	36.1
	Sierra Leone	25.4	0.0	29.9	19.4	0.0	30.9
	Turkey	25.6	18.0	28.9	7.6	10.4	7.1
	Madagascar	26.1	72.9	18.0	49.8	98.4	1.2
	Mexico	28.6	34.8	25.0	31.3	44.0	22.1
	Jordan	29.1	56.9	24.7	24.4	6.4	31.3
	Gambia	29.4	18.5	33.3	14.1	5.9	20.7
	Malawi	31.0	18.6	36.6	31.9	19.3	42.0
	Nepal	35.3	63.0	31.9	31.6	42.3	23.3
	Tanzania**	35.7	54.1	26.9	39.0	53.7	31.7
	Namibia	49.9	44.2	53.1	42.8	49.7	37.5
	Low- and middle-income average	**21.5**	**25.3**	**19.7**	**19.7**	**26.9**	**15.2**

B. Using less than half of the median hourly wage as the definition of low pay

Income group	Country	Before			After		
		Total %	Women %	Men %	Total %	Women %	Men %
Low- and middle-income	Bulgaria	0.0	0.0	0.0	0.0	0.0	0.0
	Romania	0.0	0.0	0.0	0.0	0.0	0.0
	Bangladesh	1.5	5.1	0.5	3.0	12.3	0.0
	Bolivia*	5.7	15.4	0.0	5.5	28.6	0.0
	Costa Rica	7.7	11.8	5.2	13.4	13.0	13.7
	Albania	10.8	8.4	12.1	19.8	4.8	24.2
	Jordan	11.3	24.0	9.3	9.6	3.8	11.9
	Nepal	13.1	57.4	7.7	20.0	42.3	2.8
	Turkey	18.4	14.6	20.0	5.4	6.5	5.2
	Gambia	18.6	0.9	24.9	10.2	0.7	17.7
	Malawi	20.0	4.7	27.0	19.3	3.9	31.8
	Mexico	21.1	29.8	16.1	20.5	26.1	16.4
	Sierra Leone	22.5	0.0	26.4	19.4	0.0	30.9
	Madagascar	26.1	72.9	18.0	49.8	98.4	1.2
	Tanzania**	26.4	34.3	22.5	27.1	30.4	25.5
	Namibia	40.2	39.6	40.6	39.9	47.4	34.1
	Low- and middle-income	**13.8**	**19.3**	**11.7**	**12.2**	**18.0**	**9.0**

Note: EU, high-income, and low- and middle-income estimates are the averages of the European Union, the sample of high-income countries, and low- and middle-income countries, respectively. Averages are weighted by the number of wage employees in each country. * the Plurinational State of Bolivia; ** the United Republic of Tanzania.

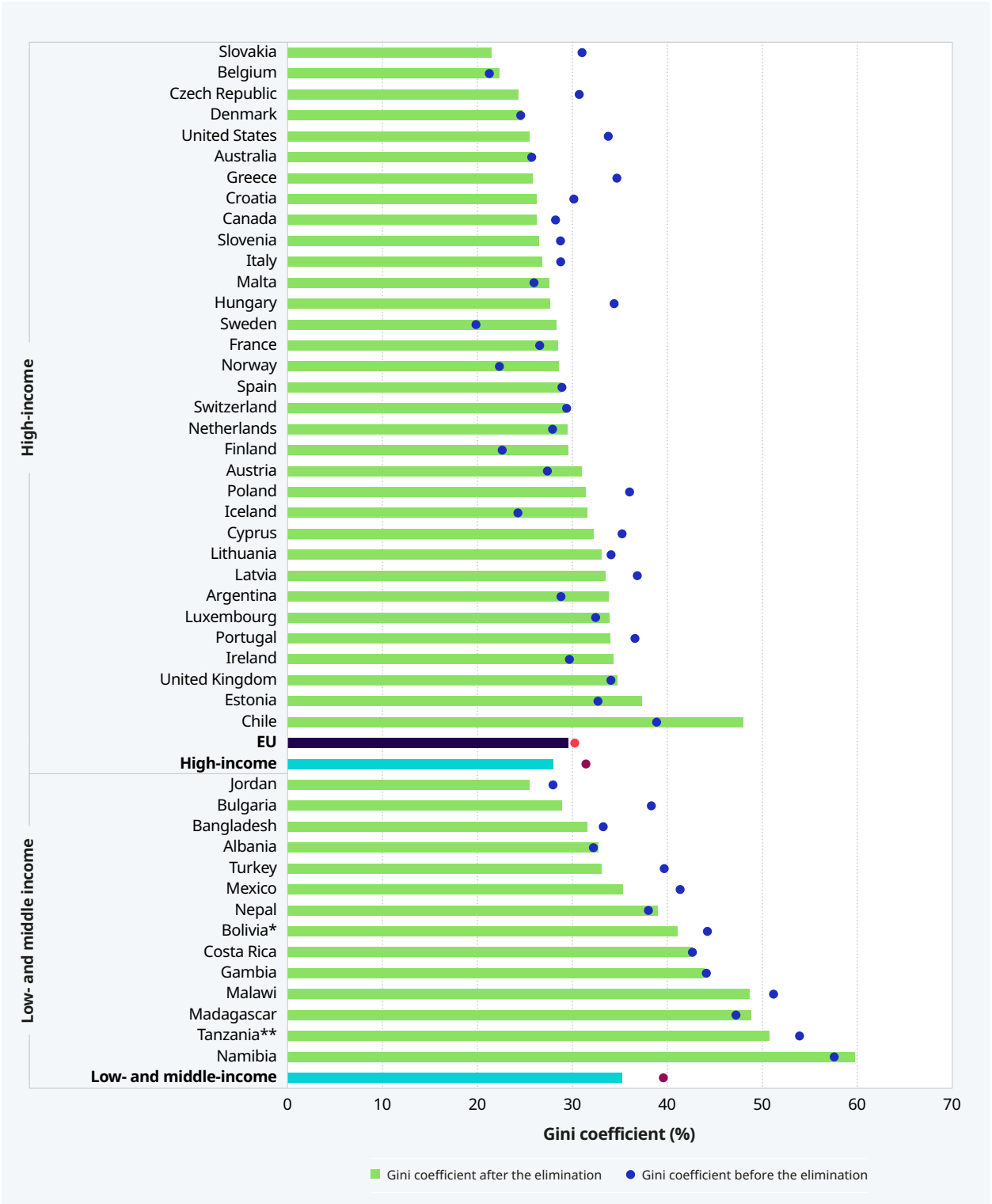
Source: ILO estimates based on survey data provided by national sources (see Appendix II).

4.4. Measures to eliminate the unexplained part of the migrant pay gap can help reduce wage inequalities and the aggregate gender pay gap in the economy

Measures to eliminate the unexplained part of the migrant pay gap can help reduce overall wage inequalities across countries, as well as the aggregate gender pay gap in the economy. The Gini inequality coefficient – which expresses the level of wage inequalities within the economy – would reduce from about 31.2 per cent to approximately 28.0 per cent on average in the sample of HICs, from about 30.2 per cent to 29.6 per cent in the EU, and from about 39.3 per cent to 35.3 per cent in the sample of LMICs (figure 32).

In terms of the aggregate pay gap between all men and all women in the economy, measures to eliminate the unexplained part of the migrant pay gap can help reduce the aggregate gender pay gap in favour of men across the sample of HICs from around 16.2 per cent to approximately 11.6 per cent when using mean hourly wages, and from about 15.7 per cent to 11.6 per cent when using median hourly wages (figure 33).

▶ Figure 32: The Gini coefficient after eliminating the unexplained part of the migrant pay gap, latest year



Note: This figure compares the unadjusted Gini coefficient with the Gini coefficient when the unexplained part of the migrant pay gap is eliminated. The Gini provides a comprehensive estimate of within country wage inequality. Data on the unadjusted Gini coefficient is taken from the Global Wage Report 2018/19. EU, high-income, and low- and middle-income estimates are the averages of the European Union, the sample of high-income countries, and low- and middle-income countries, respectively. Averages are weighted by the number of wage employees in each country. * the Plurinational State of Bolivia; ** the United Republic of Tanzania.

Source: ILO estimates based on survey data provided by national sources (see Appendix II).

▶ **Figure 33: The aggregate gender pay gap after eliminating the unexplained part of the migrant pay gap (based on mean and median hourly wages), high-income countries, latest year**

Note: This figure compares the unadjusted gender pay gaps with the pay gaps when the unexplained part of the migrant pay gap is eliminated. Data on the unadjusted gender pay gap is taken from the Global Wage Report 2018/19. High-income is the average of the sample of high-income countries covered in the report. The average is weighted by the number of wage employees in each country.

Source: ILO estimates based on survey data provided by national sources (see Appendix II).

Chapter 5

Conclusions

Chapter 5 – Conclusions

This report is a first attempt to examine differences in labour market outcomes of migrant workers and nationals at the global level, including providing gender disaggregated estimates, and highlighting the migrant pay gap. The report uses recent available data from 49 countries that span the five regions of the ILO and which together represent about a quarter of wage employees worldwide. The 49 countries, comprising 33 High-Income Countries (HICs) – representing about 56 per cent of all HICs as of July 2019 – and 16 Low- and Middle-Income Countries (LMICs) – representing about 12.4 per cent of all LMICs–, host nearly half (49.4 per cent) of all international migrants and roughly 33.8 per cent of migrant workers worldwide. It is important to note, however, that the quantitative data on labour market outcomes, including data on wages of migrant and non-migrant workers used in the analysis in this report predate the COVID-19 crisis period.

The report drew from the methodology of the ILO Global Wage Report 2018/19, which provides a detailed analysis of pay inequalities between men and women around the world. The main objective of the report is to highlight labour market differences between migrant workers and nationals, including migrant pay gaps across countries. It does so with a view to facilitating the adoption and implementation of evidence-based labour migration policies around the world, and ensuring that these are gender-responsive. It also contributes to the work towards achieving SDG tartgets 8.5 and 8.8, which respectively call for "equal pay for work of equal value" and "protected labour rights for all workers, including migrant workers, in particular women migrant workers, and those in precarious employment." Findings from the report can also help set the basis for monitoring labour market gaps, including wage inequalities, between migrant workers and non-migrant workers around the world, and between migrant men and migrant women; support the case for closing these gaps as enshrined in the dedicated ILO Conventions concerning migrant workers; and encourage further research on policies and practices that are effective for promoting change.

It is important to emphasize that the conclusions drawn from the report are based on the estimates obtained by using the available data from a limited number of countries. In Chapter 3, the analysis yields opposing results for the sample of HICs on the one hand and the sample of LMICs on the other hand. Possible reasons for the opposing estimates may include, among others, the relatively small sample of LMICs covered in the report; the relatively small proportion of migrant workers in LMICs; and the composition of jobs among migrant workers in LMICs (for example, the likelihood of a cluster of temporary high-skilled 'expatriate' workers among the total migrant population).

5.1. Key takeaways

The following points highlight the key findings from the report:

1. International migrant workers constitute a significant proportion of the global wage workforce, averaging approximately 9.2 per cent in the sample of HICs and 1.2 per cent in the sample of LMICs, with sizeable variations across countries. Luxembourg has the largest proportion of migrant wage workers as a share of total wage workers with about 47.0 per cent share of migrant wage workers. Jordan (44.3 per cent), Switzerland (29.3 per cent), Australia (26.4 per cent) and Canada (24.1 per cent) have the second, third, fourth and fifth largest shares of migrant wage workers, respectively (table 1).

2. Although, on average, women (migrants and non-migrants alike) account for a slightly higher proportion of the working age population than men across countries, the share of women among total wage workers is low, on average, compared to men. While the share of migrant women among the total working age migrant population is about 50.6 per cent in the sample of HICs and 51.3 per cent in the sample of LMICs, only about 43.0 per cent of migrant wage workers in the sample of HICs are women and 32.0 per cent in the sample of LMICs are women, although there are notable variations across countries. Similarly, while non-migrant women account for 50.8 per cent of the total working age population of non-migrants in the sample of HICs and 51.6 per cent of the total working age population of non-migrants in the sample of LMICs, about 47.9 per cent

of the total non-migrant wage workers in the sample of HICs are women whereas 34.2 per cent of the total non-migrant wage workers in the sample of LMICs are women. This finding is consistent with results from the the ILO Global Estimates Report on International Migrant Workers (2018b). The finding also reflects the generally low labour force participation rates of women, particularly migrant women who are more likely to engage in unpaid care work, which is a major barrier to their labour force participation (ILO, 2018d) (figure 1).

3. Similarly to findings from the ILO Global Estimates on International Migrant Workers (2018b), this report finds that migrants of working age in the sample of HICs tend to have higher labour force participation than non-migrants, on average (72.1 per cent and 69.0 per cent, respectively), with variations across countries (table 4). Among the sample of LMICs, however, migrants tend to have lower labour force participation than non-migrants, on average (62.0 per cent and 64.6 per cent, respectively). In terms of distribution by sex, migrant men tend to have higher labour force participation rates than their non-migrant counterparts, on average, in the sample of HICs (83.1 per cent and 74.1 per cent, respectively), but have lower participation rates than their non-migrant counterparts in the sample of LMICs (78.6 per cent and 81.7 per cent, respectively), with some variations across countries. Among women, migrant women tend to have lower labour force participation rates than non-migrant women, on average, in both the samples of HICs (61.3 per cent and 64.0 per cent, respectively) and LMICs (45.9 per cent and 48.4 per cent, respectively) (table 4 and figure 3). The higher labour force participation of migrants in HICs, particularly of migrant men, is consistent with the hypothesis of positive-selection, whereby it is individuals with stronger labour market potential, economic motives, and a desire to work who tend to migrate for economic purposes (see Chiquiar and Hanson, 2005; McKenzie and Rapoport, 2010; Parey et al., 2015). The lower labour force participation of migrant women relative to migrant men and non-migrant women in the sample of HICs may be explained by: (i) the fact that migrant women are more likely to engage in unpaid care work, which is a major barrier to women's labour force participation (ILO, 2018c); (ii) and the higher likelihood of women to migrate for reasons other than employment (for instance, for family reunification or humanitarian reasons), as well as possible discrimination against migrant women that reduces their employment opportunities (see, eg, ILO, 2018b; Kapur, 2010; OECD, 2009).

4. In 14 of the studied countries where data on informality was available, the report finds that a larger share of the active migrant workforce tend to be in informal employment compared to the non-migrant workforce, in particular women migrants. Notably, about 63.2 per cent of the non-migrant workforce in the 14 studied countries are employed in the informal economy, compared to about 66.5 per cent of migrant workers. The gap among wage workers is even wider, with about 50.8 per cent of non-migrant wage workers employed in the informal economy compared to 62.4 per cent of migrant wage workers. In terms of distribution by sex, informal employment is higher among migrant women workers than migrant men workers, on average (66.4 per cent and 65.7 per cent, respectively) (table 7). It is however important to take into account that the estimates cover only two HICs (Argentina and Chile) and 12 LMICs. These countries host roughly only 5.3 per cent of international migrants and about 3.0 per cent of migrant workers worldwide.

5. The report shows that, given similar levels of education, the likelihood of attaining semi- or high-skilled occupations is lower for migrant workers than for nationals in the sample of HICs. In other words, highly educated migrant workers in the sample of HICs tend to be less likely to obtain jobs in higher paid occupational categories. This finding is consistent with the literature that partly attributes observed gaps in labour market outcomes of migrant workers and nationals in HICs to differences in the returns to foreign-acquired education, and to skills mismatch among migrant workers. Skills mismatch translates into migrant workers being concentrated in lower paid occupations. Migrants' skills are often not fully recognized in HICs and migrants frequently resort to continuous work in lower-skilled jobs that do not account for their higher skills level. In contrast, migrant workers in the sample of LMICs, on average tend to receive better returns to their educational endowment, which is consistent with the notion that migrant workers from the

Global North tend to receive a premium for their labour market characteristics in the Global South (figures 8 and 9).

6. By looking at the distribution of wage workers by industrial sector, the report finds that, on average, migrant wage workers, compared to nationals, are disproportionately represented in the primary sector – agriculture, fishing and forestry – in the sample of HICs (2.5 per cent and 1.5 per cent, respectively), while in the sample of LMICs, the proportions of both groups are similar (10.6 per cent and 10.3 per cent, respectively). In the sample of HICs, more migrant wage workers than nationals take up secondary sector jobs – mining and quarry; manufacturing; electricity, gas and water; and construction – (26.8 per cent and 20.8 per cent, respectively), while in the sample of LMICs, they (migrant wage workers) tend to take up fewer secondary sector jobs, on average, than nationals (24.9 per cent and 32.6 per cent, respectively). However, while there is a tendency for fewer migrant workers to be employed in the tertiary sector (i.e. services) than nationals in HICs (70.7 per cent and 77.7 per cent, respectively), they tend to take up more tertiary sector jobs than nationals in the sample of LMICs, on average (64.6 per cent and 57.1 per cent, respectively), with few exceptions, including in Costa Rica, the Gambia, Jordan, Namibia, Nepal, and Turkey. In terms of distribution by gender, migrant men wage workers tend to work more in the primary and secondary sectors in the sample of HICs and the tertiary sector in the sample of LMICs than their national counterparts. Similarly, migrant women wage workers tend to work more in the primary and secondary sectors in the sample of HICs and the primary and tertiary sectors in the sample of LMICs than their national counterparts (figures 10 and A-2).

7. Similar to previous ILO research, the report shows that migrant wage workers in both the samples of HICs and LMICs are, on average, more likely than nationals to work under temporary contracts (27.0 per cent and 14.9 per cent, respectively in the sample of HICs, and 42.9 per cent and 41.7 per cent, respectively in the sample of LMICs), with few exceptions including Australia, Canada, Chile, Hungary, Ireland, and Latvia (among the sample of HICs); and Bangladesh, Malawi, and Mexico (among the sample of LMICs), and variations across countries (figure 11). This corroborates the findings of earlier ILO research (ILO, 2016b) according to which migrant workers are particularly prone to be employed in non-standards jobs. Entry through temporary migration programmes or individual characteristics are often one of the reasons. In addition, migrant workers tend to be overrepresented in sectors with traditionally high incidence of non-standard jobs. As a consequence, migrant workers may also be more likely to suffer from the disadvantages inherent to non-standards forms of employment, a fact that has become more evident during the COVID-19 pandemic across the world.

8. Similar to previous ILO research, the report finds that the incidence of part-time work is higher among migrant workers than non-migrant workers in HICs but lower than non-migrant workers in LMICs, on average. Migrant workers have slightly higher part-time incidence rates than non-migrant workers in the sample of HICs, on average (15.0 per cent and 14.6 per cent, respectively), primarily due to the significantly higher incidence of part-time work contracts among migrant women compared to non-migrant women. While part-time incidence rates of migrant men is slightly lower than that of non-migrant men in the sample of HICs (7.7 per cent and 8.3 per cent, respectively), an average gap of 2.2 percentage points exists between the part-time rates of migrant women and non-migrant women in HICs (23.8 per cent and 21.6 per cent, respectively), although the scale of the difference varies widely across countries. In the sample of LMICs, incidence of part-time work tends to be lower among migrant workers than among non-migrant workers, on average (6.2 per cent and 8.7 per cent, respectively), with notable variations across countries. Both migrant men and migrant women in LMICs tend to have lower part-time incidence rates than their national counterparts, on average (3.9 per cent and 6.5 per cent of migrant men and non-migrant men, respectively, and 10.3 per cent and 12.0 per cent of migrant women and non-migrant women, respectively), although part-time work is more prevalent among women than among men in general (figure 12).

9. Care work remains an important source of employment for many migrant workers, in particular women migrants. The report cor-

roborates previous findings in the ILO *Care Work and Care Jobs for the Future of Decent Work* report (ILO, 2018d) by showing that migrant women are more likely than migrant men to be employed as care workers, with the proportion of migrant women employed in the care economy exceeding that of migrant men in all the studied countries (figures 14 and 15).

10. Chapter 3 provides clear evidence of a migrant pay gap across countries. The findings demonstrate that, on average, migrant workers earn about 12.6 per cent less per hour than non-migrant workers in the sample of HICs, with notable exceptions and variations across countries. However, in the sample of LMICs, migrant workers tend to earn about 17.3 per cent more per hour than nationals, on average (figure 17)

11. The report also highlights that migrant women, particularly in HICs tend to pay a double penalty for being both women and migrants as compared to the average migrant worker, a finding consistent with results from the OECD's International Migration Outlook 2020 (OECD, 2020b). Specifically, migrant women earn less than migrant men (who in turn earn less than non-migrant workers, on average) in the sample of HICs. They also earn less than non-migrant women and even far less than non-migrant men in the sample of HICs. For example, the pay gap (based on mean hourly wages) between non-migrant men and migrant women in the sample of 33 studied HICs is estimated at around 20.9 per cent, which is much wider than the estimated global aggregate gender pay gap (based on mean hourly wages) of 16.2 per cent among HICs (figures 21 and 22).

12. Similarly, migrant care workers (both men and women) pay a larger wage penalty relative to the average migrant worker in the sample of HICs for which care workers are uniquely identified (19.6 per cent and 17.1 per cent, respectively), with notable exceptions. However, for migrant women working in the highly feminized care sector where work is often undervalued, pay is even far less (figure 24).

13. Migrant workers have been among the hardest hit by the economic downturn associated with the COVID-19 pandemic, both in terms of employment losses and a decline in earnings for those who have remained in employment.

14. The report uses education, age, and gender as factors to remove a significant part of composition effect in estimating the migrant pay gap, effect that is caused by the existence of clusters in the wage distribution of wage workers. This approach results in what is called the *factor-weighted* migrant pay gap. Based on this approach, the report finds that, on average, migrant workers earn about 9.5 per cent less per hour than non-migrant workers in the sample of HICs, but earn about 23.8 per cent more per hour than non-migrant workers in the sample of LMICs. Relative to the standard approach (section 3.2), the *factor-weighted* approach produces a migrant pay gap that is lower in the sample of HICs, and wider in the sample of LMICs because the latter approach tend to account for the existence of clusters of few workers, especially migrant workers at certain locations in the wage distribution (figures 25 and 27).

15. Given that migrant workers are concentrated (clustered) at certain locations in the wage distribution, estimating migrant pay gaps at different points in the wage distribution can be more informative than using single summary measures like the mean or median migrant pay gap. The report finds that the migrant pay gap varies significantly across the entire wage distribution for all the studied countries. In some countries, the migrant pay gap may be larger at the top end of the wage distribution, whereas in others it may be larger in the middle or at the bottom end of the wage distribution (figures A-4 and A-5).

16. Findings also indicate that a large part of the migrant pay gap is unexplained by observed differences in the labour market characteristics of migrant workers and nationals. That is, a significantly large migrant pay gap remains across countries after accounting for characteristics such as education, years of experience, and type of work contract (see table 8). The findings show that, about 10 percentage points of the estimated mean hourly migrant pay gap in the sample of HICs (12.6 per cent) remains unexplained, although there are notable exceptions among the studied countries. On the other hand, on average, nearly all the –17 per cent estimated mean hourly migrant pay gap in the sampled of LMICs remains unexplained (figure 29).

17. Further, in spite of migrant workers' education levels being similar to or higher than that of nationals for the same occupation, migrant workers earn less than non-migrant workers within the same occupation in several countries, in particular in the sample of HICs (figure A-7).

18. There is a weak correlation between the share of migrant's population and the level of (hourly) wage inequality in countries of destination. Countries with lower levels of (hourly) wage inequality are countries with a notable size of migrant population, as a share of the total working age population (figure 2).

19. There appears to be no clear correlation between wage inequalities and the unadjusted migrant pay gap. However, higher wage inequalities appear to be weakly correlated with higher levels of unexplained (adjusted) migrant pay gaps (figure A-1). In view of this, policy measures put in place to narrow the migrant pay gap, in particular the unexplained part should include measures that can help reduce overall levels of within-country wage inequalities.

20. Based on a counterfactual wage distribution of migrant workers, the report shows that the migrant pay gap would generally stay low if migrant workers were to receive similar returns to their labour market characteristics as nationals. Once labour market characteristics are taken into account and any remaining unexplained pay gap is eliminated, among the sample of HICs, the migrant pay gap would nearly disappear in countries like Argentina, Belgium, Denmark, Finland, Italy, and Sweden; and would reverse in favour of migrant workers in Chile, Cyprus, France, Greece, Hungary, Ireland, Latvia, the Netherlands, and Spain. It would decline substantially but remain positive in Austria, Canada, Luxembourg, Portugal, Slovenia, Switzerland, and the United States. On average, the migrant pay gap across the sample of HICs would decline substantially from approximately 12.6 per cent to about 0.2 per cent if wages were set according to observed labour market characteristics. In the EU, the migrant pay gap would reverse from about 8.6 per cent to about –7.9 per cent, on average. Among the sample of LMICs, the migrant pay gap would remain negative in some countries, while it would be positive in others (figure 30). Thus, in countries where the unexplained part of the migrant pay gap is significantly high, eliminating this gap would help enhance skills and jobs matching for men and women migrant workers, and promote equality as well as economic productivity and development across countries.

21. Given the significant size of the unexplained component of the migrant pay gap, measures that eliminate this part of the gap would help to substantially reduce the rate of working poverty among migrant workers, especially among migrant women. By defining working poverty (low-paid workers) as "the proportion of workers earning less than half of the median hourly wage", eliminating the unexplained part of the migrant pay gap would reduce the proportion of low-paid migrant workers, by roughly 49 per cent in the sample of HICs (from about 11.5 per cent to 5.9 per cent), by about 59 per cent in the EU (from around 15.0 per cent to 6.2 per cent), and about 12 per cent in the sample of LMICs (from about 13.8 per cent to 12.2 per cent) (figure 31 and table 10).

22. In addition to reducing the migrant pay gap and the rate of working poverty among migrant workers, the report shows that measures that eliminate the unexplained part of the migrant pay gap can help to reduce wage inequalities, as well as the aggregate pay gap between men and women in the economy. The report estimates that the Gini inequality coefficient – which expresses the level of wage inequalities within the economy – would reduce from about 31.2 per cent to approximately 28.0 per cent on average in the sample of HICs, from about 30.2 per cent to 29.6 per cent in the EU, and from about 39.3 per cent to 35.3 per cent in the sample of LMICs. The aggregate gender pay gap in favour of men across the sample of HICs would decline from around 16.2 per cent to approximately 11.6 per cent when using mean hourly wages, and from about 15.7 per cent to 11.6 per cent when using median hourly wages (figures 32 and 33).

5.2. Limitations of the report

Foremost, estimates of the migrant pay gap and other labour market differences between migrant workers and nationals presented in this report are based on data that predate the ongoing COVID-19 crisis. However, the crisis may widen the labour market differences between migrant workers and nationals, which may in turn further deepen

the migrant pay gaps presented in this report. Therefore, a reassessment of the migrant pay gap would be useful when more recent labour market data covering the COVID-19 pandemic period become available.

The report does not distinguish between permanent and temporary migrant workers and does not consider the tenure of stay of migrant workers. Also, the report does not differentiate between migrant workers of different nationality of origin present in a particular country. Certainly, migrants' status, origin and length of stay in countries of destination can influence labour market outcomes, including wages. Therefore, further research about labour market differences, including wage differences that may exist between groups of migrant workers of different status, origin or nationality, and with different length of stay in their destination countries, is encouraged.

Across the studied countries, a migrant is defined as a person of working age (16–70 years) present in a country of measurement who is not a citizen of that country. Thus, foreign-born citizens, including naturalized citizens are treated equally as native-born citizens in this report. The report, however, acknowledges that there may be differences in practice in the way in which foreign-born citizens are treated in the labour market as compared to native-born citizens. The examination of the differences in labour market outcomes for foreign-born and native-born nationals is outside the scope of this report and is left for future studies.

Non-EU migrants and EU migrants within an EU country are not distinguished in the report. In other words, EU nationals who relocate from their home country to another EU country are treated the same as migrants from outside the EU. Analysis of the differences in labour market outcomes for EU migrant workers and non-EU migrant workers within the EU is beyond the scope of this report.

This report highlights differences in returns to education for migrant workers and nationals within the same occupational categories. It does not, however, explore returns to education within sectors of the economy. Also, the report does not explore differences in returns to education for migrant men and women separately, which is recommended for future research.

Another important element for future research is the deepening of analysis at occupational level and sectors of the economy. To what extent are migrant workers concentrated in certain jobs?

Migrant workers from South and Southeast Asia are seen having their lunch break in a garment factory in Jordan. © shutterstock.com

Why are migrant workers performing jobs that may be different from nationals? This will require further quantitative and qualitative analysis in specific countries.

5.3. Policy implications and recommendations

A major question emerging from the analysis in this report is, what can be done to progressively reduce migrant pay gaps across countries, particularly in HICs and in some LMICs, including through the effective implementation of the principle of "equal pay for work of equal value"? While there is a range of policies and measures that can be taken to reduce these pay gaps, the answer to this question will necessarily be country specific. This is because the factors that drive and explain migrant pay gaps vary from country to country as well as in different parts of the wage distribution. They may also vary across migration corridors, where bilateral labour agreements are negotiated for different wages for a segment of the migrant population depending on the migrants' countries of origin.

While the report is not intended to provide a detailed analysis of the underlying causes of the differences in labour market outcomes of migrant workers and nationals (the report mainly highlights the stylized facts based on recent national labour force survey data), some important policy implications have emerged from the analysis as discussed below.

Kuala Lumpur, Malaysia – may 06, 2020: Foreign migrant workers line up to do COVID-19 screening. © shutterstock.com

Monitoring the impact of the ongoing COVID-19 crisis on migrant workers is important in addressing their specific vulnerabilities

While estimates presented in this report reflect periods prior to the COVID-19 crisis, the findings bear enhanced relevance in the face of COVID-19. The ongoing worldwide COVID-19 crisis has put a spotlight on decent work deficits among men and women migrant workers around the world. Experiences from previous economic crises suggest that the economic downturn associated with the COVID-19 pandemic may have disproportionate and long-lasting negative effects on the integration of migrants in their countries of destination (OECD, 2020a). Moreover, Fasani and Mazza (2020b) shows that migrant workers in the EU are more likely to be in temporary employment, earn lower wages and have jobs that are less amenable to teleworking during the COVID-19 crisis compared to non-migrant workers. Also, the COVID-19 crisis appears to be reverting the trend of progress and jeopardising more than a decade of progress in migrant labour market inclusion (see, OECD. 2020b). Recent survey data from Mexico and the United States that covers up to the third quarter of 2020 shows that migrant workers have been among the hardest hit by the COVID-19 crisis, both in terms of employment losses and a decline in earnings for those who have remained in employment. In view of these recent changes, the migrant pay gap estimates presented in this report are likely to widen during and after the crisis. Analysis of the social and economic outcomes of men and women migrant workers therefore remain most relevant in the immediate and long-term response to the COVID-19 crisis. As countries safeguard their economies during and beyond the pandemic, there is a need to monitor and protect the rights of men and women migrant workers. This should include covering migrant workers in national COVID-19 policy responses, such as ensuring that they are covered by measures relating to wage subsidies, and facilitating their access to social security, including health care and income protection measures.

The report recommends a reassessment of the migrant pay gap across countries whenever national level labour market data covering the

COVID-19 pandemic period and beyond become available, in order to measure the impact of the COVID-19 crisis on the labour market outcomes of migrant workers.

Reliable data, including data on wages of migrant workers and nationals, is needed on other regions and countries of destination

Quality of data is key, notably availability of reliable data on the distribution of wages amongst migrant workers and nationals, in particular for other regions and countries of destination not covered in this report. This would help bridge the existing data gap, for example, with regard to data on migration to Asia and the Arab States (particularly, the Gulf Cooperation Council (GCC) countries) and within North Africa, and South-East Asia and the Pacific.

One feasible option would be to review and modify existing surveys across these countries by introducing modules specifically related to migrant pay gaps into cross-sectional surveys. The use of modules to pick up specific information is an extended practice when collecting survey data, with modules integrated sporadically to pick up information on a particular population group or particular events. What the report recommends here is not a module on matters related to migrant workers only, but the design and subsequent integration of modules that are carefully thought out to cover matters that are identified as potential determinants of the migrant pay gap. The migrant pay gap, as in the case of the gender pay gap, is a slowly changing statistic, and for this reason the module could be administered only sporadically, not necessarily yearly. This could be a very cost-effective instrument that potentially will produce sufficiently rich survey data that would improve the understanding of factors contributing to the migrant pay gap.

In addition to modifying existing surveys that capture data on migrant workers, it is also important to capture activities in the informal economy vis-à-vis the formal economy. As this report highlights, migrant workers, particularly women migrants, are more likely to work in the informal economy as compared to nationals. Capturing informality in labour force surveys, both in LMICs and in HICs would go a long way to provide a more reliable data source for understanding the migrant pay gap.

The ILO is currently working towards filling a part of this gap by implementing the Guidelines concerning statistics of international labour migration (see ILO, 2018c), in particular focusing on appropriate methodologies for capturing and collecting data on the main categories and subcategories of international migrant workers. This is part of the ILO effort to improve the collection and production of labour migration statistics at national, regional, and global levels, as well as the development of international concepts and standards on labour migration statistics agreed worldwide.

There is a need to go beyond simple summary measures of the migrant pay gap

It is important to go beyond simple summary measures of the migrant pay gap (such as the mean or median migrant pay gap) in order to understand the underpinning causes and thus identify the most effective policy measures to reduce the gaps. This can be done by examining in more detail the respective wage structures of migrant workers and nationals, including their gender dimensions. In particular, it is essential to analyze the migrant pay gap at different locations in the wage distribution (including decomposing the gap into explained and unexplained parts) as well as in different sectors of the economy, and to calculate factor-weighted migrant pay gaps, which accounts for composition effects in estimating the pay gaps. This will be particularly useful in countries where migrant workers cluster in particular sectors and occupations.

Bridging the migrant pay gap will require policies that target different locations in the wage distribution

An important question is whether the migrant pay gap in a particular country is mostly driven by pay gaps at the bottom, in the middle or at the top of the wage distribution; or it is driven by pay gaps in specific sectors of the economy. Computing migrant pay gaps at different locations in the wage distribution as well as in different sectors of the economy has important policy implications. For example, a well-designed minimum wage with broad legal coverage, including in sectors in which migrant workers are mainly employed, could reduce the migrant pay gap at the lower end of the wage distribution. To maximize the effect of minimum wages, setting lower wage level for sectors in which

migrant workers often predominate such as domestic work or agriculture should be avoided. Collective agreements that include provisions on equal pay and pay transparency could have similar effects at the middle and upper ends of the wage distribution. Finally, policies and measures that promote training and equal opportunity for upward mobility for migrant workers in the labour market, especially for those with long-term residence, could have a positive effect on wage levels in senior positions. Likewise, eliminating discrimination and addressing occupational segregation of migrant workers into lower paid occupations and sectors may also help reduce the migrant pay gap.

Measures that promote the formalization of the informal economy – such as extending to all workers, including migrant women, the right to a minimum wage and social security – can also greatly benefit migrant workers, especially women, bringing them under the umbrella of legal and effective protection and empowering them to better defend their interests.

Tackling the "explained" part of the migrant pay gap

The decomposition analysis in this report shows that part of the migrant pay gap can be explained by differences in labour market characteristics of migrant workers and nationals, including education and experience, and the fact that migrant workers are more likely than nationals to work in low-paid occupations or industries. The importance of these factors varies from country to country, and across income groups. Migrant workers in paid employment who have higher levels of education than nationals, but receive relatively lower returns to their education – partly due to skills mismatch and non-recognition of their foreign qualifications – may benefit from educational or retraining policies that target men and women migrant workers, particularly in HICs. This may significantly reduce the migrant pay gap in countries where migrant workers earn significantly less than non-migrant workers. Reducing polarization and occupational segregation may require a series of measures including changing social and cultural perceptions and stereotypes contributing to discrimination against migrants; targeted efforts that create better chances for men and women migrant workers, especially for long-term residents, to enter into a wider range of occupations, including managerial and professional occupations, which offer better paid employment opportunities; and combating employer prejudice in hiring and promotion decisions.

Tackling the "unexplained" part of the migrant pay gap

The report finds that in many countries a substantial part of the migrant pay gap remains unexplained by differences in labour market characteristics of migrant workers and nationals. There is, therefore, a need to focus attention on adopting and implementing in countries, where it is absent: (i) national legislation prohibiting pay discrimination against migrant workers; and ii) measures that promote equal pay for work of equal value between women and men, and between migrant and non-migrant workers. This also includes implementing the full principle of "equal remuneration for work of equal value" beyond the narrower concept of "equal pay for equal work", in line with ILO standards. Countries need to promote pay transparency to expose pay differences between migrant workers and nationals occupying similar positions or performing work of equal value. Countries may also embrace proactive pay equity laws, which require employers to regularly examine their compensation practices, assess the gender and migrant pay gaps and take actions to eliminate the gaps that are due to discrimination in pay.

More generally, labour market integration measures that offer migrant workers access to jobs, recognize their foreign qualifications, and provide the needed retraining programmes can help reduce skills mismatch. These measures must also counter discriminatory practices, including with respect to pay, against migrant workers. Labour market integration measures can help narrow the unexplained part of the migrant pay gap and reduce working poverty among migrant workers, especially among women. This would not only be beneficial to migrant workers, but also it can be beneficial to businesses and economies of destination countries through optimized migrant labour.

In any event, reducing the migrant pay gap will require a broader strategy that includes also the adoption of fair and effective labour migration policies that address decent work deficits and ensure greater coherence across employment, education and training, and other relevant policies at national, regional and global levels.

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Appendices

Appendix I. Description of methods

The migrant pay gap

The (raw) migrant pay gap at the mean or quantile v of the wage distributions of migrant workers and nationals of country i is estimated as how much the country's migrant workers' earnings fall short of the earnings of its nationals at that mean or quantile in percentage terms. This can be expressed in level form as

$$\Delta_i^v = \frac{PAY(NATIONALS)_i^v - PAY(MIGRANTS)_i^v}{PAY(NATIONALS)_i^v} \text{ x } 100$$

and in logarithm form as

$$\Delta_i^v = \log[PAY(NATIONALS)_i^v] - \log[PAY(MIGRANTS)_i^v],$$

where Δ_i^v is the migrant pay gap at the mean or quantile v of the wage distribution of country i.

Decomposing the migrant pay gap

Chapter 3 of the report follows the ILO's *Global Wage Report 2018/19* and adapts the method proposed by Fortin, Lemieux and Firpo (2011) to identify, measure and decompose the explained and unexplained components of the migrant pay gap. The decomposition exercise of Fortin, Lemieux and Firpo (2011) attributes a weight to each of the variables that are assumed as determinants of the migrant pay gap and consists of three steps. Step 1 estimates a counterfactual wage distribution for migrant workers – that is, the wage distribution that would characterize migrant workers if they were to receive the same returns to their labour market characteristics as nationals. Step 2 consists in using the counterfactual wage distribution to separate the explained and unexplained parts of the migrant pay gap at each quantile of the pay distribution (in this report, the hourly wage distribution). The third and final step consists in applying unconditional quantile regression to estimate the weight attached to each variable that contributes to determining the migrant pay gap.

What follows aims to provide a heuristic understanding of steps 1 and 2, with reference to the migrant pay gap. The third step, which has to do with the application of unconditional quantile regression to further identify how an individual's labour market characteristics contribute to the formation of the migrant pay gap is beyond the scope of this report.

Step 1: Identifying the counterfactual wage distribution

The counterfactual wage distribution for migrant workers is the wage structure that would be observed among migrant workers if they received the same returns as nationals to their (migrant workers') labour market endowments and attributes. Fortin, Lemieux and Firpo (2011) propose the use of a "weighting factor" to elicit such a counterfactual distribution. Intuitively, the weighting factor assigns higher weights to migrant wage workers whose endowments and attributes make them more similar to nationals in the labour market, while migrant workers whose characteristics make them less similar to nationals in the labour market are assigned a lower weight.

For each wage worker i in the sample, we observe a set of indicator (X) that describes the characteristics of nationals ($T_i = 1$) and migrant workers ($T_i = 0$) in the labour market; for example, X can include age, education, contractual arrangements, gender, place of work, among others (see Table 8). The information can be used to estimate the probability of having a particular set of attributes, where a wage employee is a national, that is $P(X|T = 1)$ or a migrant worker, that is, $P(X|T = 0)$. It can be shown that

$$P(X|T = j) = \frac{P(T = j|X)}{P(T = j)}, \text{ for } j = 0,1$$

where $P(T = j) = P(j)$ simply indicates the probability of being a national ($j = 1$) or a migrant worker ($j = 0$) in the population. Based on this, the individual's specific weighting factor (ω_i) can be constructed as follows:

$$\omega_i = \frac{P(T_i = 1|X)}{P(T_i = 0|X)} \cdot \frac{P(0)}{P(1)} \qquad (1)$$

The terms $P(T_i = 1|X)$ and $P(T_i = 0|X)$ in expression (1) can be regarded as propensity scores and

can be estimated using either a probit or a logit specification. The estimation of either one of these specifications produces coefficients for each of the variables in X. These coefficients can be employed to project the conditional probabilities for each national and each migrant wage employee in the sample. Thus, an estimate of $P(T_i = 1|X)$ projects the conditional probability of being a national for each wage employee (that is, for both migrant workers and nationals). When the estimated value of $P(T_i = 1|X)$ is high for a migrant worker this means that his/her labour market attributes are very similar to nationals who are wage employees in the population. It also means that the weighting factor constructed using expression (1) will be high.

Once the weighting factor has been constructed, this can be used to "re-weight" the wages observed for migrant wage workers. These re-weighted values – where the wages of migrant workers who are more similar to nationals are given a higher weight, and those of migrant workers less similar to nationals are given a lower weight – serve to construct an empirical distribution that emulates the wage structure of migrant workers if they had received the same returns to their labour market characteristics as nationals. This is what is referred to as a *counterfactual* wage distribution. Thus, if the cumulative density function for migrant wage employees (M) in the population can be expressed as

$$F_M(y) = \sum_{i \in n(M)} w_i \cdot I\{Y_i \leq y\}$$

where Y_i denotes the wage of a migrant worker $i \in n(M)$ in the sample of migrant workers $n(M)$, and w_i is the population (frequency) weight, then the counterfactual wage distribution for migrant workers can be similarly expressed as:

$$F_c(y) = \sum_{i \in n(M)} (\omega_i \cdot w_i) \cdot I\{Y_i \leq y\}$$

This shows how the re-weighting factor enters the estimation of the counterfactual wage distribution for migrant wage employees. Likewise, we can estimate the cumulative distribution function for wages of nationals as,

$$F_N(y) = \sum_{i \in n(N)} w_i \cdot I\{Y_i \leq y\}$$

where in the case of nationals, Y_i denotes the wage of a national $i \in n(N)$ in the sample of nationals who are wage employees $n(N)$, and w_i is the population (frequency) weight.

In practice, once the re-weighting factor has been estimated, standard software packages can be employed to draw distributional statistics – for example quantiles – directly by simply applying the appropriate weights to the wages of nationals (w_i, $i \in n(N)$), migrant workers (w_i, $i \in n(M)$) and the counterfactual ($(\omega_i \cdot w_i)$, $i \in n(M)$), respectively. What is more important is to make sure that the corresponding propensity scores are well approximated by including as much information as possible (indicators in X and several interaction terms between them). This should guarantee that the counterfactual wage distribution of migrant workers is well captured by the re-weighting factor.

In summary, once the re-weighting factor is constructed it is possible to draw quantiles from each of the three empirical wage distributions, namely, from that of nationals (q_v^N), from that of migrant workers (q_v^M) and from that of the counterfactual wage distribution of migrant workers (q_v^C). The suffix "v" indicates each one of the deciles of the hourly wage distribution, that is, $v = \{1, 2, 3, \ldots, 9, 10\}$ as displayed in figures A-4 and A-6 (Appendix IV).

Step 2: Using the counterfactual wage distribution to identify the explained and unexplained components of the migrant pay gap

Let y_i^g be the natural logarithm of wages (e.g. hourly wages) observed for group g in the population, where $g = N, M, C$ follows the notation outlined in the previous step. Drawing quantiles from each of the three distributions of the natural logarithmic transformation, the (raw) migrant pay gap at the v^{th} quantile (Δ^v) can be expressed as follows:

$$\Delta^v = q_v^N - q_v^M \qquad (2)$$

Expression (2) shows the distance between two quantiles that have been drawn from two wage distributions of the (natural logarithms of) wages: that of nationals (q_v^N) and that of migrant workers (q_v^M). We can also draw the v^{th} quantile from the counterfactual distribution of migrant workers, that is, (q_v^C). This represents the hourly wage at that quantile that migrant workers would earn if they were to receive the same returns as nationals for having similar labour market endowments and attributes. Using this counterfactual quantile, the following can be constructed:

$$\Delta^v = \underbrace{q_v^N - q_v^C}_{\substack{\textit{EXPLAINED PART} \\ \textit{= COMPOSITION EFFECT}}} + \underbrace{q_v^C - q_v^M}_{\substack{\textit{UNEXPLAINED PART} \\ \textit{= STRUCTURAL EFFECT}}} = \Delta_X^v + \Delta_U^v \quad (3)$$

Since the counterfactual emulates what migrant workers should receive as returns for sharing the same endowments and attributes as nationals, the distance between what nationals get and what migrant workers should receive if they have the same endowments and attributes as nationals is explained by any differences in endowments and labour market characteristics. This is why Δ_X^v is referred to as the "explained" part of the migrant pay gap, also known as the migrant pay gap due to "composition effects". On the other hand, the distance between what migrant workers should receive (for their endowments and attributes and as emulated by the counterfactual) and what they actually get (for these endowments and attributes) cannot be explained. This is the part Δ_U^v that remains "unexplained", that is, the part that is due to differences between nationals' and migrant workers' wage structures once we control for differences in their labour market characteristics. Since the unexplained part is due to a difference in wage structures, Δ_U^v is also referred to as the "structural effect".

In practical terms, the decomposition of the migrant pay gap as expressed in equation (3) requires the following stages. First, transformation of wages in the sampled population into logarithmic scales. Second, construction of the re-weighting factor as described in (1). Third, appropriate application of weights, that is, allowing for the re-weighting factor on migrant workers' wages to draw the (logarithmic) wage distribution for nationals, migrant workers and the counterfactual. Fourth, drawing the quantiles of interest. Fifth and final stage, applying the simple distance as expressed in (2) to estimate the (raw) migrant pay gap, and its decomposition as expressed in (3), at each selected quantile of the hourly wage distribution.

Appendix II. National data sources

Country	Subregion	Latest years for which data is available	Data type	Data source
Albania	Northern, southern and Western Europe	2013	Labour force survey	Instituti i Statistikave Albania (INSTAT)
Argentina	Latin America and the Caribbean	2018	Encuesta Permanente de Hogares	NSO – latest data from ILO repository or SIALC (Sistema de información y análisis Laboral de América Latina y el Caribe)
Australia	South-East Asia and the Pacific	2017	Household, Income and Labour Dynamics in Australia	Melbourne Institute of Statistics, The University of Melbourne
Austria	Northern, southern and Western Europe	2015	EU-SILC	Eurostat*
Bangladesh	South Asia	2017	Labour force survey	Bangladesh Bureau of Statistics
Belgium	Northern, southern and Western Europe	2015	EU-SES	Eurostat*
Bolivia (Plurinational State of)	Latin America and the Caribbean	2017	Encuesta Continua de Empleo	NSO – latest data from ILO repository or SIALC
Bulgaria	Eastern Europe	2015	EU-SES	Eurostat*
Canada	North America	2018	Labour force survey	NSO – data from ILO repository
Chile	Latin America and the Caribbean	2017	Encuesta Nacional de Empleo	NSO – latest data from ILO repository or SIALC
Costa Rica	Latin America and the Caribbean	2018	Encuesta Continua de Empleo	NSO – latest data from ILO repository or SIALC
Croatia	Northern, southern and Western Europe	2015	EU-SILC	Eurostat*
Cyprus	Central and West Asia	2015	EU-SES	Eurostat*
Czech Republic	Eastern Europe	2015	EU-SES	Eurostat*
Denmark	Northern, southern and Western Europe	2015	EU-SILC	Eurostat*
Estonia	Northern, southern and Western Europe	2015	EU-SES	Eurostat*
Finland	Northern, Southern and Western Europe	2015	EU-SES	Eurostat*
France	Northern, southern and Western Europe	2015	EU-SES	Eurostat*
Gambia	Sub-Sahara Africa	2018	Labour force survey	Gambia Bureau of Statistics
Greece	Northern, southern and Western Europe	2015	EU-SILC	Eurostat*
Hungary	Eastern Europe	2015	EU-SES	Eurostat*
Iceland	Northern, southern and Western Europe	2015	EU-SILC	Eurostat*
Ireland	Northern, southern and Western Europe	2015	EU-SILC	Eurostat*
Italy	Northern, southern and Western Europe	2015	EU-SES	Eurostat*
Jordan	Arab States	2016	Labour force survey	NSO – latest data from ILO repository or SIALC
Latvia	Northern, southern and Western Europe	2015	EU-SES	Eurostat*

Country	Subregion	Latest years for which data is available	Data type	Data source
Lithuania	Northern, southern and Western Europe	2015	EU-SES	Eurostat*
Luxembourg	Northern, southern and Western Europe	2015	EU-SES	Eurostat*
Madagascar	Sub-Sahara Africa	2012	Enquête Nationale sur l'Emploi et le Secteur Informel (ENESI)	Institut National de la Statistique, Ministry of Economy of Madagascar
Malawi	Sub-Sahara Africa	2013	Labour force survey	National Statistical Office of Malawi; Ministry of Labour
Malta	Northern, southern and Western Europe	2015	EU-SES	Eurostat*
Mexico	Latin America and the Caribbean	2018	Encuesta Nacional de Ocupación y Empleo	Instituto Nacional de Estadísticas y Géographia de México (INEGI)
Namibia	Sub-Sahara Africa	2016	Labour force survey	Namibia Statistics Agency
Nepal	South Asia	2017	Labour force survey	Central Bureau of Statistics
Netherlands	Northern, southern and Western Europe	2015	EU-SES	Eurostat*
Norway	Northern, southern and Western Europe	2015	EU-SES	Eurostat*
Poland	Eastern Europe	2015	EU-SES	Eurostat*
Portugal	Northern, southern and Western Europe	2015	EU-SES	Eurostat*
Romania	Eastern Europe	2015	EU-SES	Eurostat*
Sierra Leone	Sub-Sahara Africa	2015	Labour force survey	Government of Sierra Leone
Slovakia	Eastern Europe	2015	EU-SES	Eurostat*
Slovenia	Northern, southern and Western Europe	2015	EU-SES	Eurostat*
Spain	Northern, southern and Western Europe	2015	EU-SES	Eurostat*
Sweden	Northern, southern and Western Europe	2015	EU-SES	Eurostat*
Switzerland	Northern, southern and Western Europe	2016	Swiss Household Panel Survey	Swiss Federal Statistics Office
United Republic of Tanzania	Sub-Sahara Africa	2014	Integrated labour force survey	National Bureau of Statistics
Turkey	Central and Western Asia	2017	Turkish Labour force survey;	Turkish Statistical Institute
United Kingdom	Northern, southern and Western Europe	2015	EU-SES	Eurostat*
United States	North America	2018	Current Population Survey	Bureau of Labor Statistics

Note: EU-SILC: EU Statistics on Income and Living Conditions; INSTAT = Instituti i Statistikave Albania; NSO = National Statistics Office; EU-SES= Structure of Earnings survey, SIALC = Sistema de información y análisis Laboral de América Latina y el Caribe

* Part of this report is based on data from Eurostat. We acknowledge and thank Eurostat for providing data from the Structure of Earnings Survey under contract number RPP 252/2015-SES-ILO, and data from EU-SILC under contract number 52/2013-EU-SILC. The responsibility for all conclusions drawn from these data lies entirely with the authors.

Appendix III. Country and territory groups, by region and income

ILO country groupings by region

Region	Subregion - broad	Countries
Africa	North Africa (6)	Algeria, Egypt, Libya, Morocco, Sudan, Tunisia
	Sub-Saharan Africa (47)	Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Cabo Verde, Central African Republic, Chad, Comoros, Congo, Democratic Republic of the Congo, Côte d'Ivoire, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gabon, the Gambia*, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar*, Malawi*, Mali, Mauritania, Mauritius, Mozambique, Namibia*, Niger, Nigeria, Rwanda, São Tomé and Principe, Senegal, Sierra Leone*, Somalia, South Africa, South Sudan, Swaziland, United Republic of Tanzania*, Togo, Uganda, Zambia, Zimbabwe
Americas	Latin America and the Caribbean (31)	Argentina*, the Bahamas, Barbados, Belize, Plurinational State of Bolivia*, Brazil, Chile*, Colombia, Costa Rica*, Cuba, Dominican Republic, Ecuador, El Salvador, Guadeloupe, Guatemala, Guyana, Haiti, Honduras, Jamaica, Martinique, Mexico*, Netherlands Antilles, Nicaragua, Panamá, Paraguay, Peru, Puerto Rico (unincorporated territory of the United States), Suriname, Trinidad and Tobago, Uruguay, Bolivarian Republic of Venezuela
	North America (2)	Canada*, United States*
Arab States	Arab States (12)	Bahrain, Iraq, Jordan*, Kuwait, Lebanon, Occupied Palestinian Territory, Oman, Qatar, Saudi Arabia, Syrian Arab Republic, United Arab Emirates, Yemen
Asia and the Pacific	East Asia (8)	China, Hong Kong (China), Japan, Democratic People's Republic of Korea, Republic of Korea, Macau (China), Mongolia, Taiwan (China)
	South-East Asia and the Pacific (22)	Australia*, Brunei Darussalam, Cambodia, Fiji, French Polynesia, Guam (United States), Indonesia, Lao People's Democratic Republic, Malaysia, Myanmar, New Caledonia (France), New Zealand, Papua New Guinea, Philippines, Samoa, Singapore, Solomon Islands, Thailand, Timor-Leste, Tonga, Vanuatu, Viet Nam
	South Asia (9)	Afghanistan, Bangladesh*, Bhutan, India, Islamic Republic of Iran, Maldives, Nepal*, Pakistan, Sri Lanka
Europe and Central Asia	Northern, southern and Western Europe (30)	Albania*, Austria*, Belgium*, Bosnia and Herzegovina, Channel Islands (United Kingdom), Croatia*, Denmark*, Estonia*, Finland*, France*, Germany, Greece*, Iceland*, Ireland*, Italy*, Latvia*, Lithuania*, Luxembourg*, Malta*, Montenegro, Netherlands*, Norway*, Portugal*, Serbia, Slovenia*, Spain*, Sweden*, Switzerland*, The Former Yugoslav Republic of Macedonia, United Kingdom*
	Eastern Europe (10)	Belarus, Bulgaria*, Czech Republic*, Hungary*, Poland*, Republic of Moldova, Romania*, Russian Federation, Slovakia*, Ukraine
	Central and Western Asia (11)	Armenia, Azerbaijan, Cyprus*, Georgia, Israel, Kazakhstan, Kyrgyzstan, Tajikistan, Turkey*, Turkmenistan, Uzbekistan

*Countries covered in the report

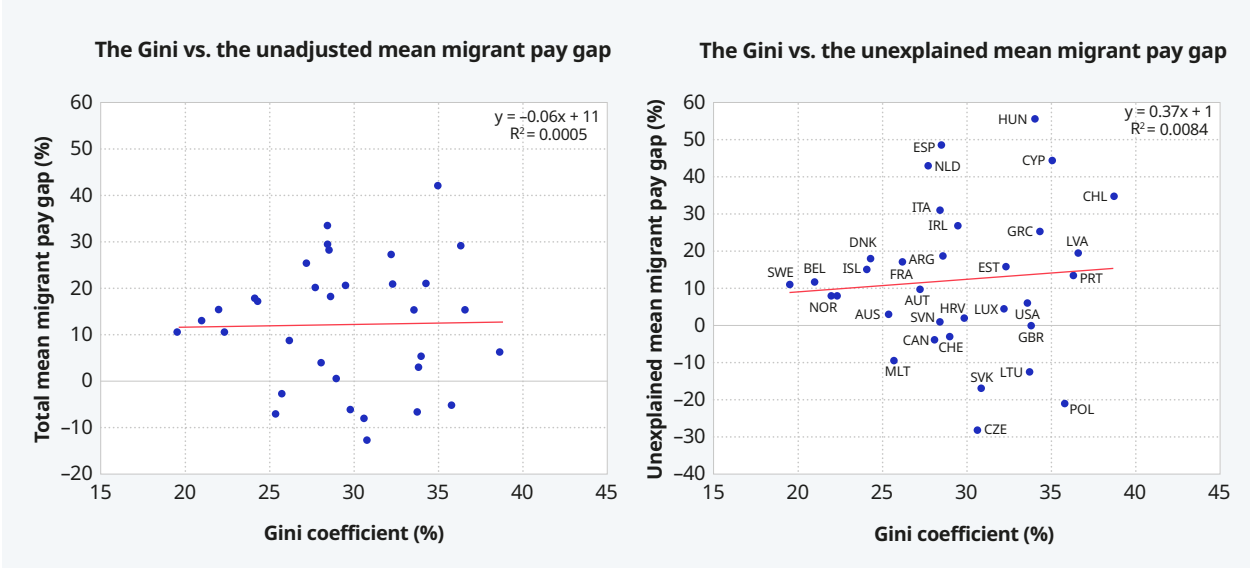
Country groupings by income level

Developed countries (High-income)	Emerging countries (Upper-middle income)	Emerging countries (Lower-middle income)	Developing countries (Low income)
Andorra	Albania	Angola	Afghanistan
Antigua and Barbuda	Algeria	Armenia	Benin
Australia	Argentina	Bangladesh	Burkina Faso
Austria	Azerbaijan	Bhutan	Burundi
Bahamas	Belarus	Bolivia, Plurinational State of	Central African Republic
Bahrain	Belize	Cambodia	Chad
Barbados	Bosnia and Herzegovina	Cameroon	Comoros
Belgium	Botswana	Cabo Verde	Congo, Democratic Republic of the
Brunei Darussalam	Brazil	Congo	Eritrea
Canada	Bulgaria	Côte d'Ivoire	Ethiopia
Channel Islands	China	Djibouti	Gambia
Chile	Colombia	Egypt	Guinea
Cyprus	Cook Islands	El Salvador	Guinea-Bissau
Czech Republic	Costa Rica	Eswatini	Haiti
Denmark	Croatia	Georgia	Korea, Democratic People's Republic of
Estonia	Cuba	Ghana	Liberia
Finland	Dominica	Guatemala	Madagascar
France	Dominican Republic	Honduras	Malawi
French Guiana	Ecuador	India	Mali
French Polynesia	Equatorial Guinea	Indonesia	Mozambique
Germany	Fiji	Jordan	Nepal
Greece	Gabon	Kenya	Niger
Greenland	Grenada	Kiribati	Rwanda
Guam	Guadeloupe	Kyrgyzstan	Senegal
Hong Kong, China	Guyana	Lao People's Democratic Republic	Sierra Leone
Hungary	Iran, Islamic Republic of	Lesotho	Somalia
Iceland	Iraq	Mauritania	South Sudan
Ireland	Jamaica	Micronesia, Federated States of	Tanzania, United Republic of
Israel	Kazakhstan	Moldova, Republic of	Togo
Italy	Lebanon	Mongolia	Uganda
Japan	Libya	Morocco	Zimbabwe
Korea, Republic of	Malaysia	Myanmar	
Kuwait	Maldives	Nicaragua	
Latvia	Marshall Islands	Nigeria	
Liechtenstein	Mauritius	Occupied Palestinian Territory	
Lithuania	Mexico	Pakistan	

Developed countries (High-income)	Emerging countries (Upper-middle income)	Emerging countries (Lower-middle income)	Developing countries (Low income)
Luxembourg	Montenegro	Papua New Guinea	
Macau, China	Namibia	Philippines	
Malta	Nauru	São Tomé and Principe	
Martinique	Panama	Solomon Islands	
Monaco	Paraguay	Sri Lanka	
Netherlands	Peru	Sudan	
Netherlands Antilles	Romania	Syrian Arab Republic	
New Caledonia	Russian Federation	Tajikistan	
New Zealand	Saint Lucia	Timor-Leste	
Norway	Saint Vincent and the Grenadines	Tunisia	
Oman	Samoa	Ukraine	
Palau	Serbia	Uzbekistan	
Poland	South Africa	Vanuatu	
Portugal	Suriname	Viet Nam	
Puerto Rico	Thailand	Western Sahara	
Qatar	The Former Yugoslav Republic of Macedonia	Yemen	
Réunion	Tonga	Zambia	
Saint Kitts and Nevis	Turkey		
San Marino	Turkmenistan		
Saudi Arabia	Tuvalu		
Seychelles	Venezuela, Bolivarian Republic of		
Singapore			
Slovakia			
Slovenia			
Spain			
Sweden			
Switzerland			
Taiwan, China			
Trinidad and Tobago			
United Arab Emirates			
United Kingdom			
United States			
United States Virgin Islands			
Uruguay			

Appendix IV. Supplementary results

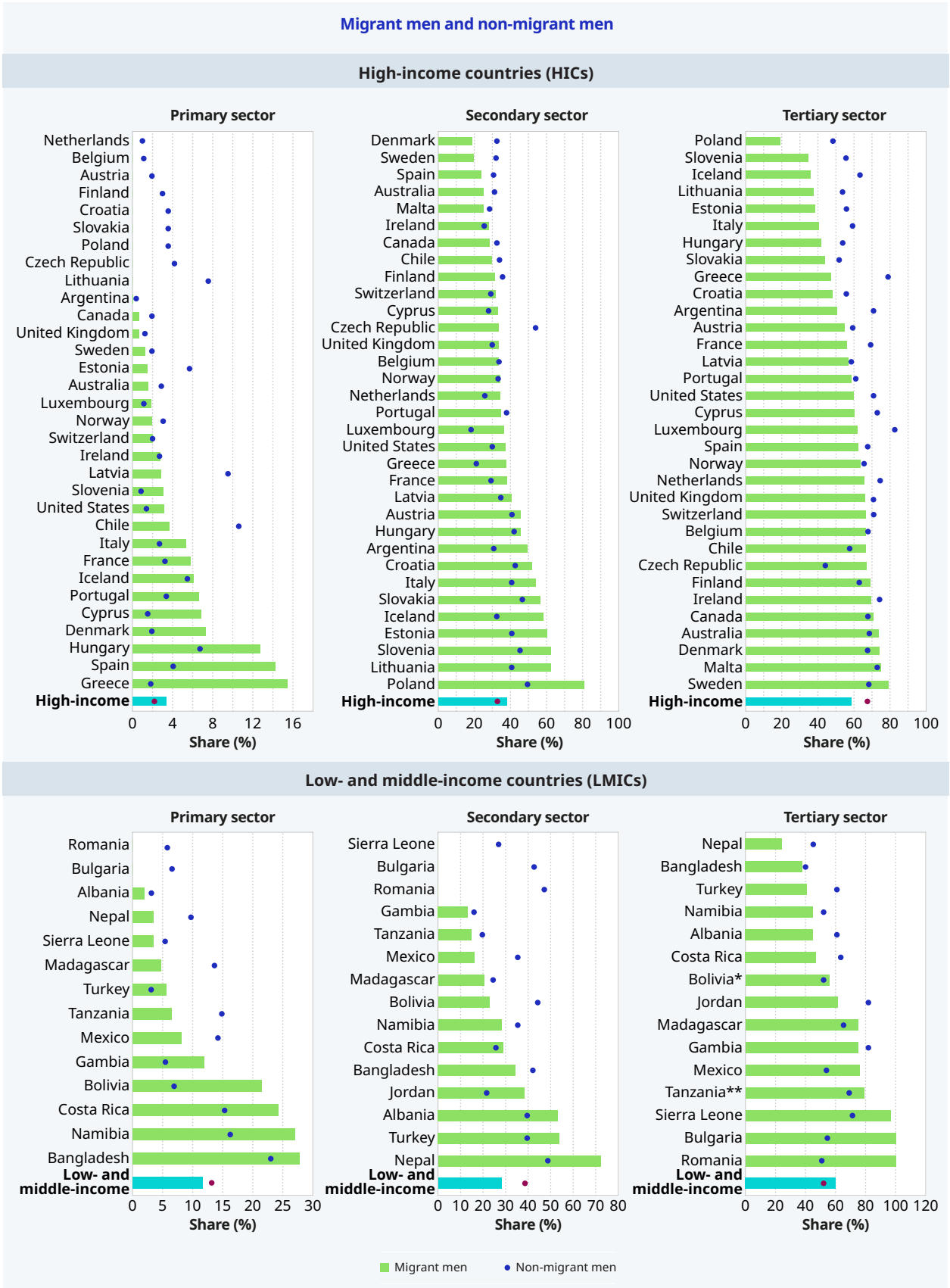
Figure A-1. The Gini coefficient and the mean migrant pay gap using hourly wages from HICs, latest years



Notes: Data on the Gini coefficient is taken from the Global Wage Report 2018/19, which provides comprehensive estimates of within country wage inequality for high-, middle- and low- income countries. The left-hand side plot shows a scatter plot of the Gini coefficient as a function of the unadjusted mean migrant pay gap (based on hourly wages) in the sample of 33 high-income economies (see table 1) with a linear line plot. The right-hand side plot shows a scatter plot of the Gini coefficient as a function of the unexplained mean migrant pay gap in the sample of 33 high-income economies with a linear line plot.

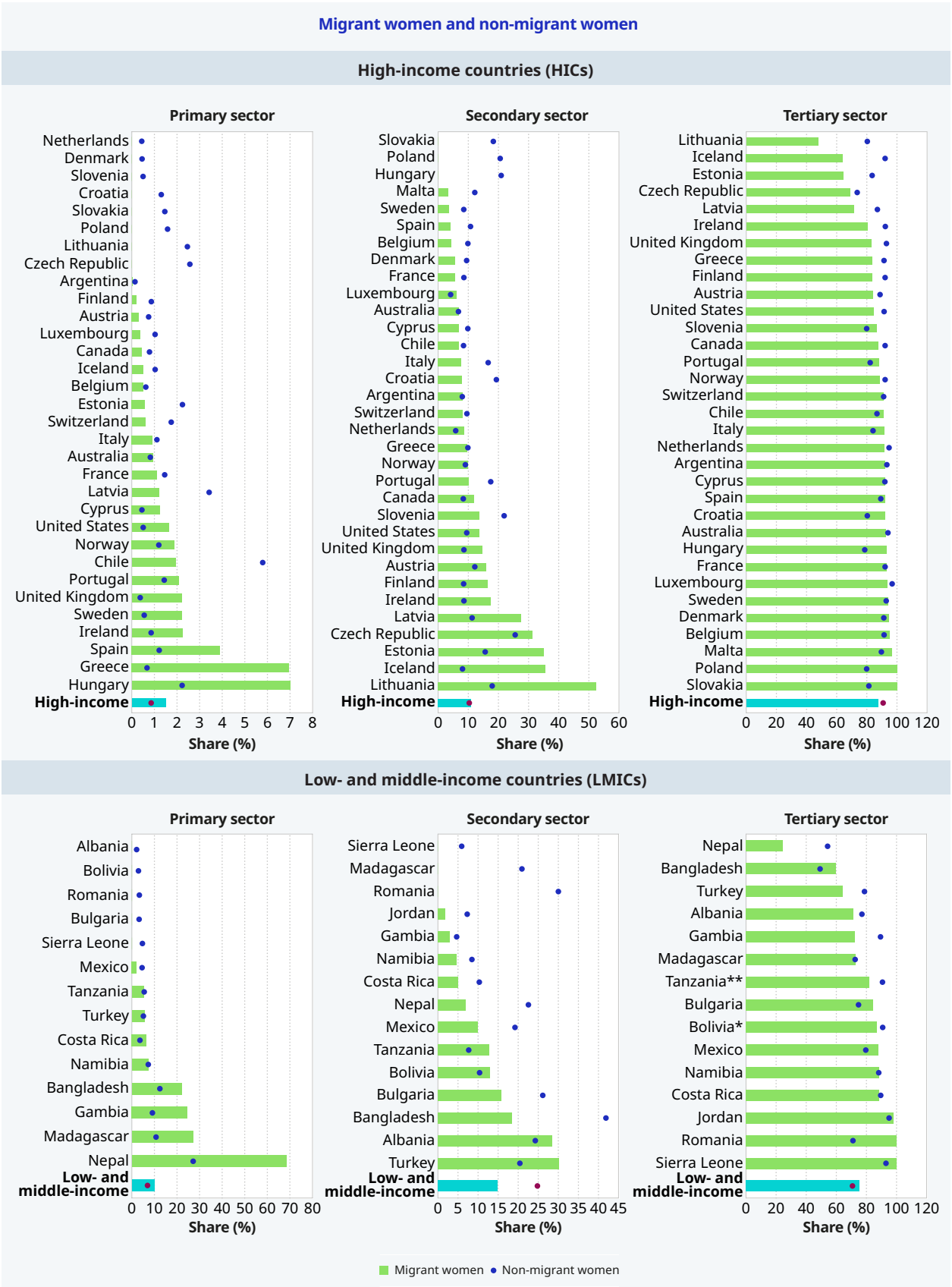
Source: ILO estimates based on survey data provided by national sources (see Appendix II).

▶ **Figure A-2. Industrial sectors of migrant and non-migrant wage workers by sex, latest years**



(Figure A-2 continued on page 132)

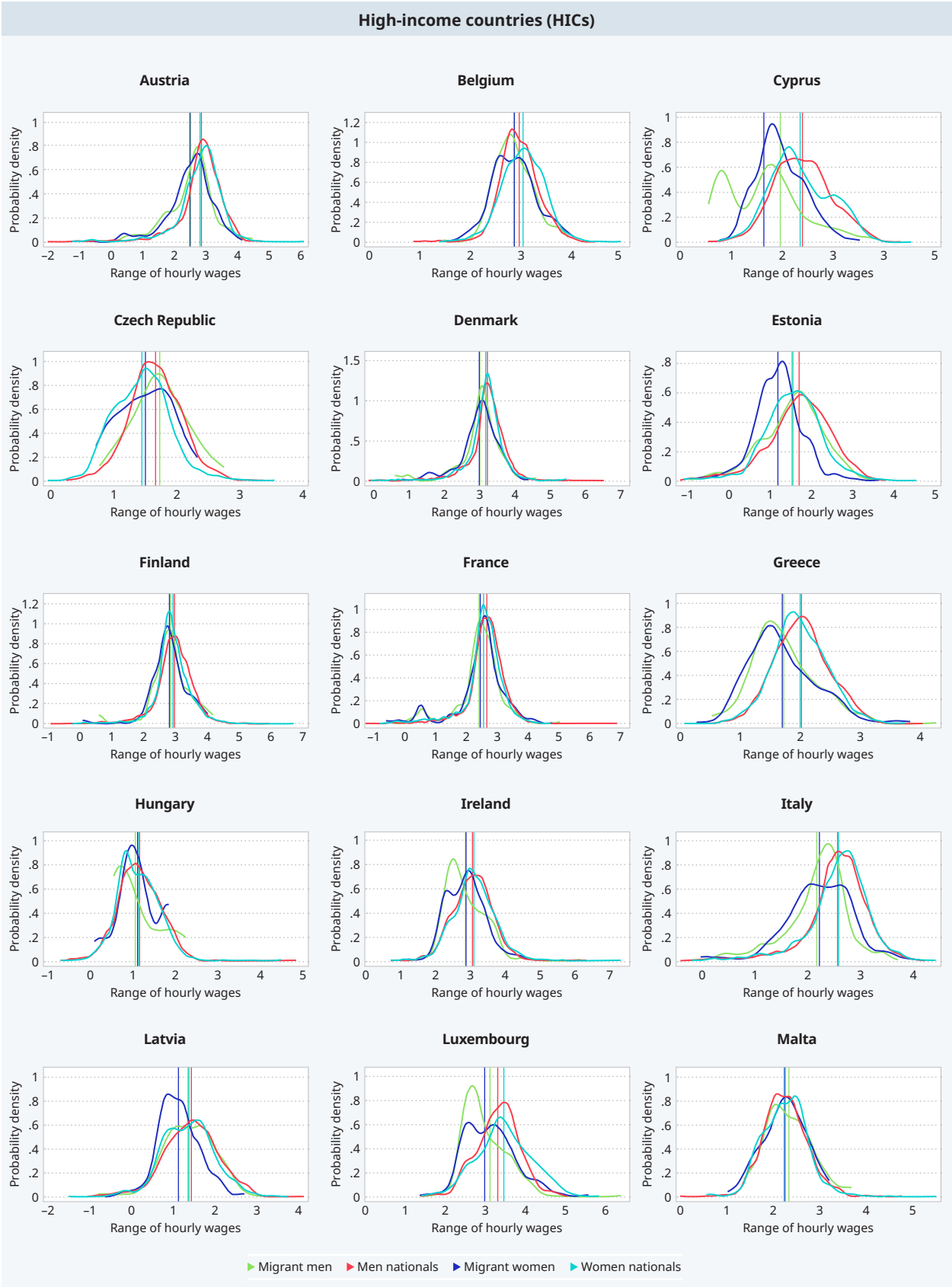
(Figure A-2 continued from page 131)



Note: High-income and low- and middle-income estimates are the weighted averages of the sample of high-income countries and low- and middle-income countries, respectively. Averages are weighted by the number of wage employees in each country. Primary sector comprises Agriculture, Fishing and Forestry. Secondary sector consists of Mining and Quarry; Manufacturing; Electricity, Gas and Water; and Construction. Tertiary sector includes all services and industries not captured under the Primary and Secondary sectors. *the Plurinational State of Bolivia; ** the United Republic of Tanzania.

Source: ILO estimates based on survey data provided by national sources (see Appendix II).

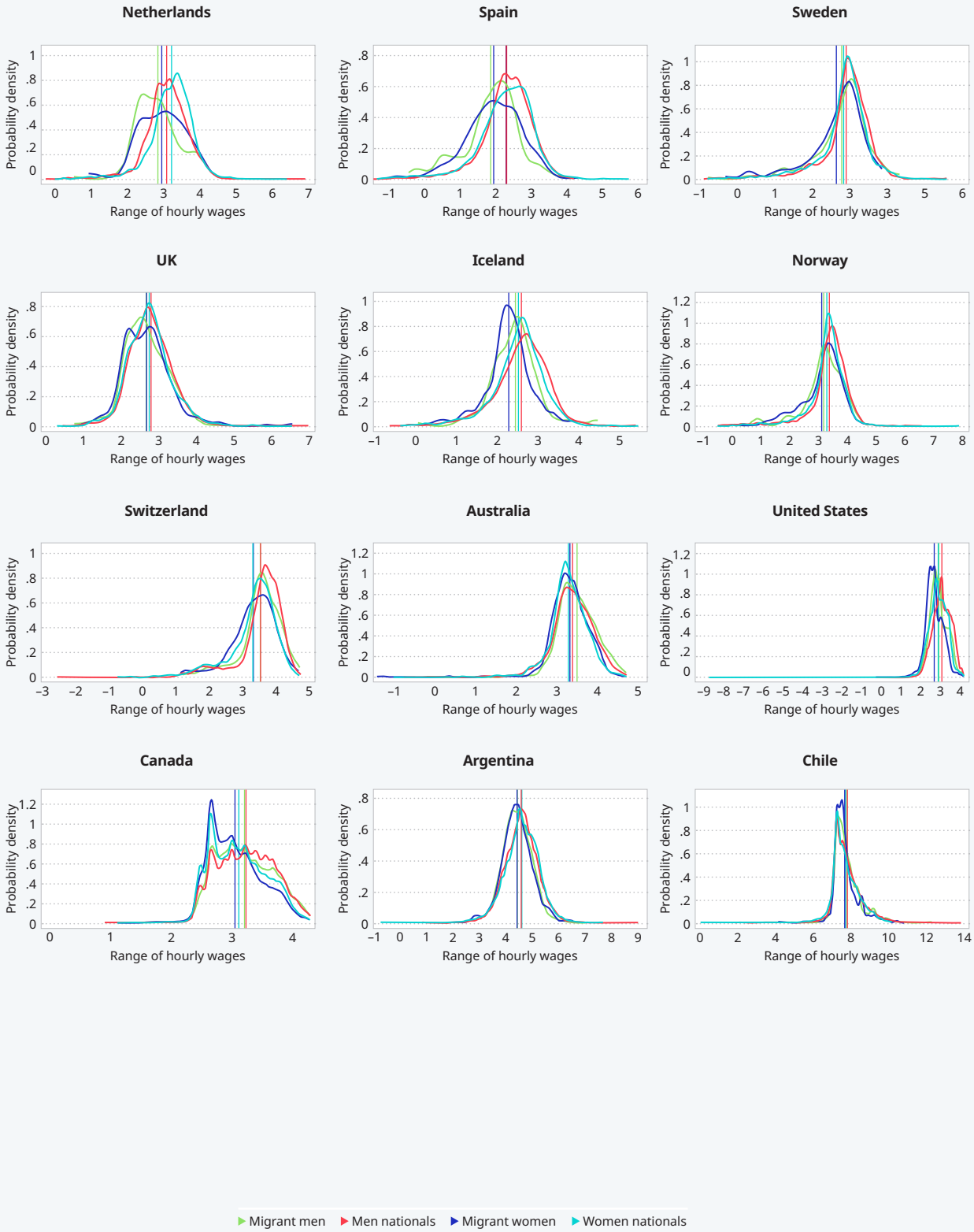
▶ **Figure A-3: The wage structure of migrant workers and nationals by sex, selected countries, latest years**

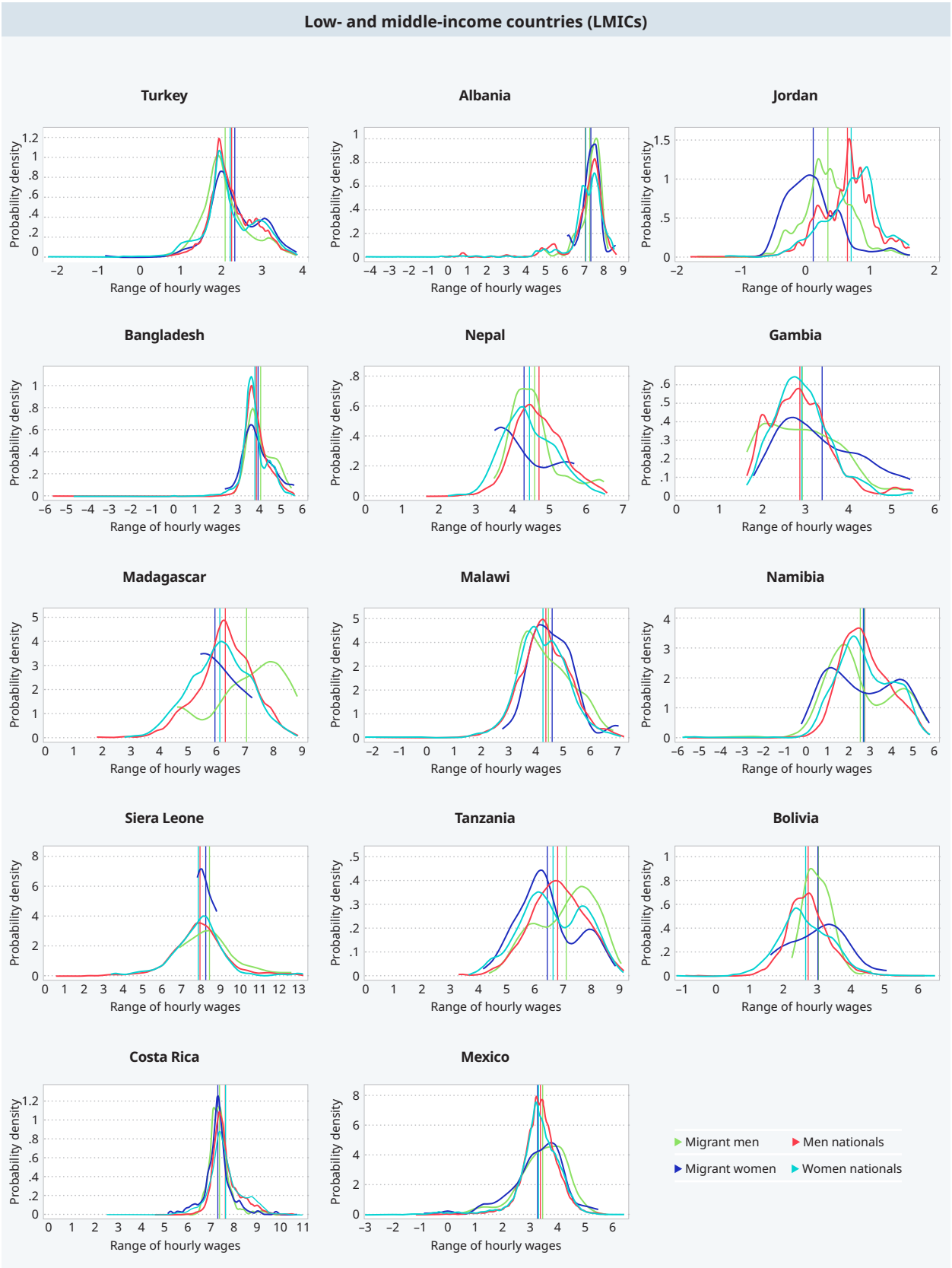


(Figure A-3 continued on page 134)

(Figure A-3 continued from page 133)

High-income countries (HICs) (continued)



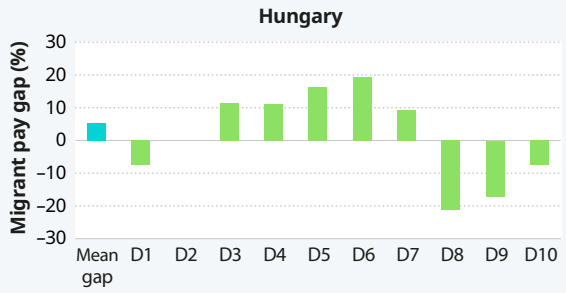


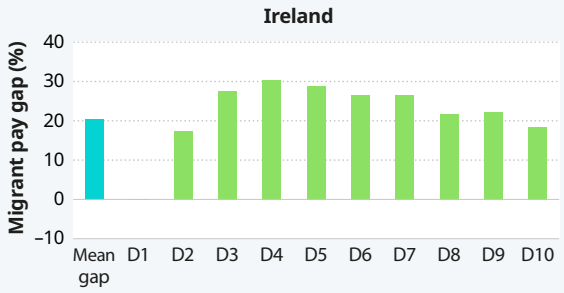
Note: Mean hourly wage: Solid vertical line. *the Plurinational State of Bolivia; ** the United Republic of Tanzania.

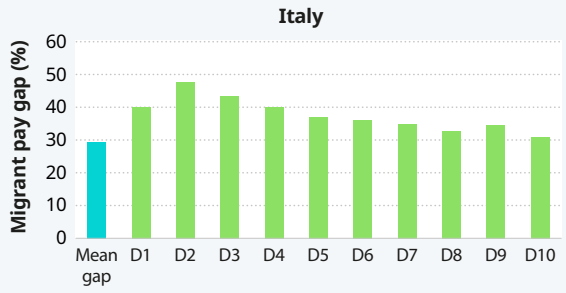
Source: ILO estimates based on survey data provided by national sources (see Appendix II).

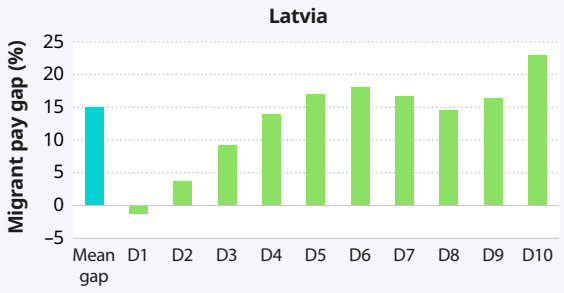
▶ **Figure A-4: The mean migrant pay gaps across the wage distribution, selected countries, latest years**

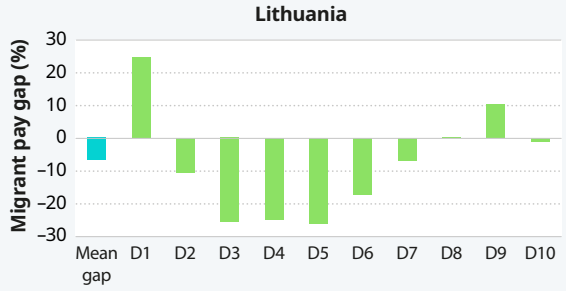
High-income countries (HICs) (continued)

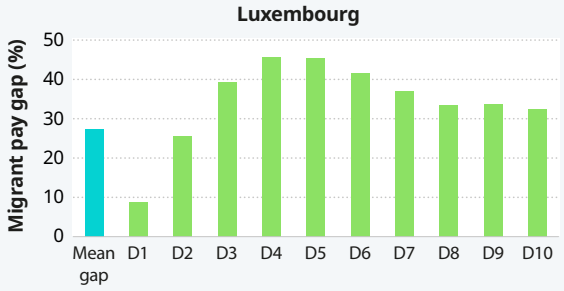


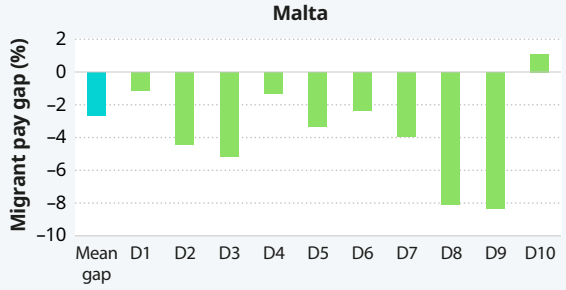


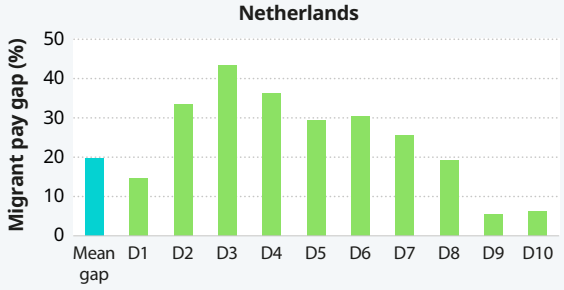


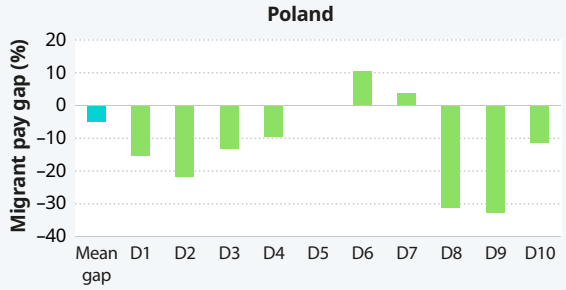


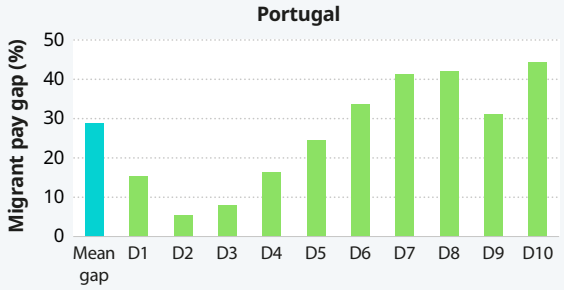








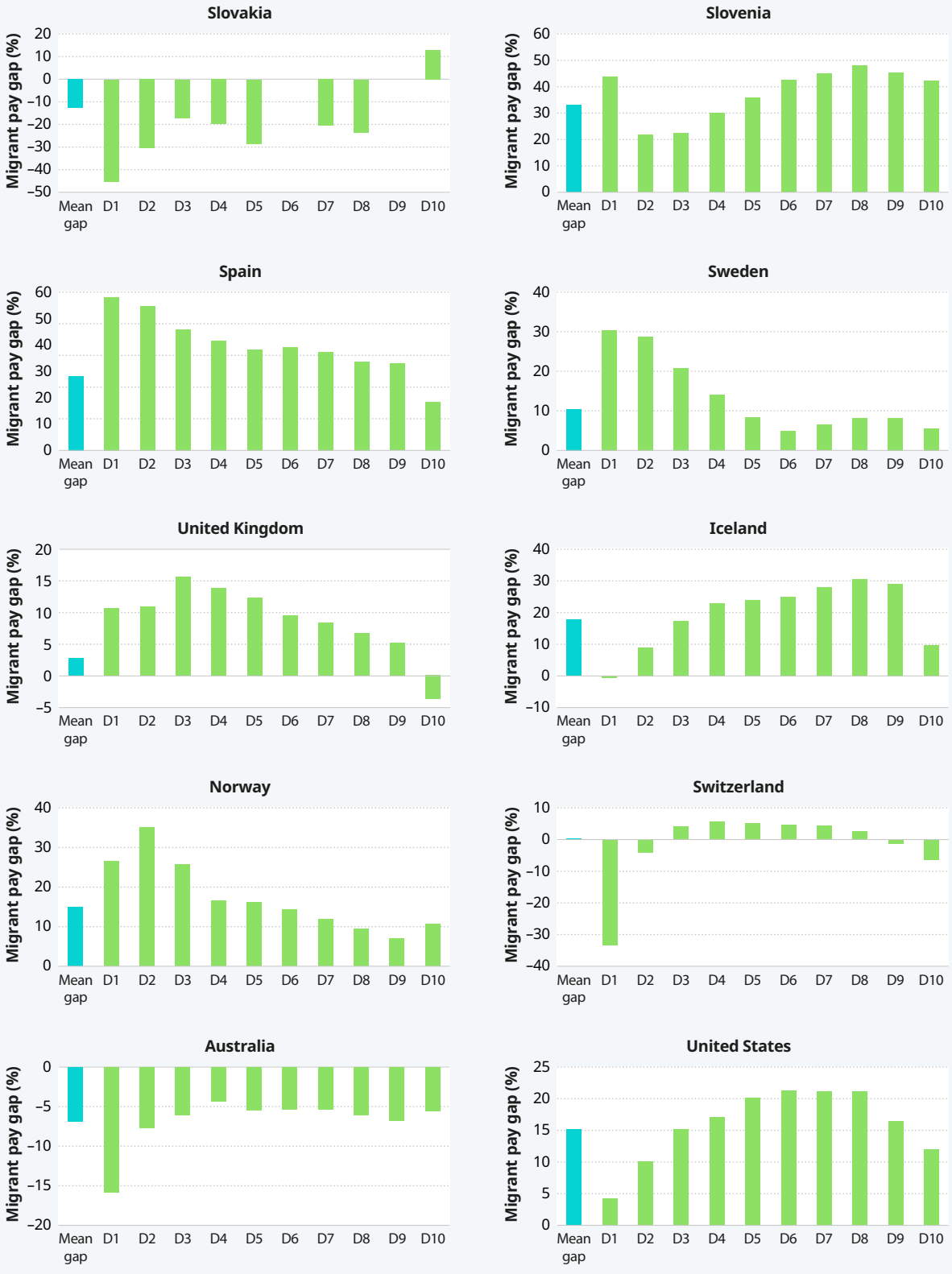




(Figure A-4 continued on page 138)

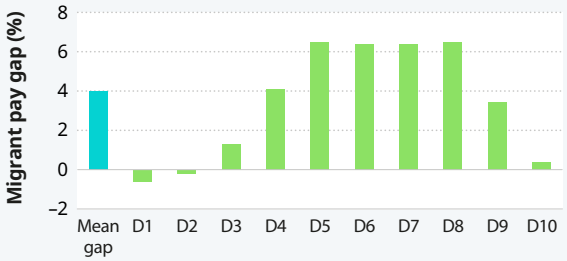
(Figure A-4 continued from page 137)

High-income countries (HICs) (continued)

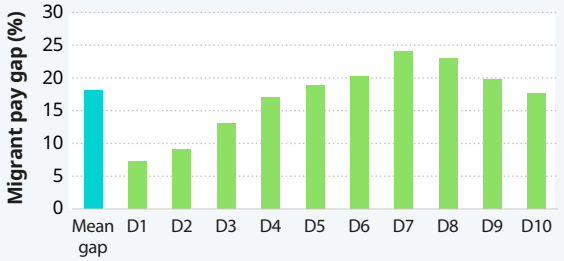


High-income countries (HICs) (continued)

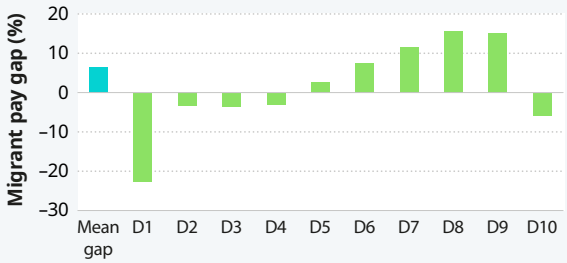
Canada



Argentina

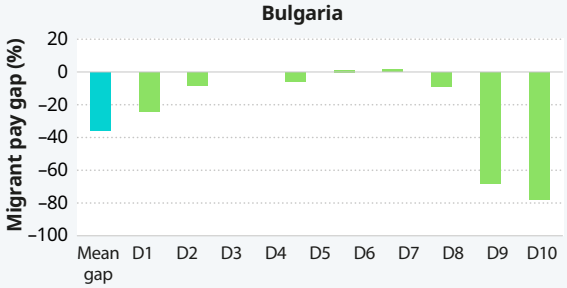


Chile

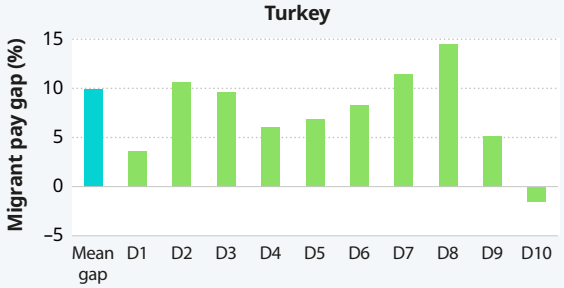


Low- and middle-income countries (LMICs)

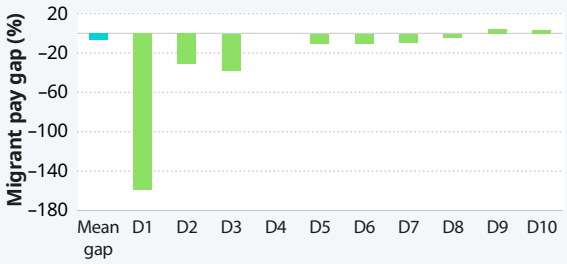
Bulgaria



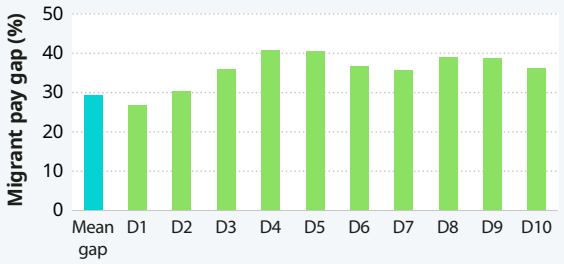
Turkey



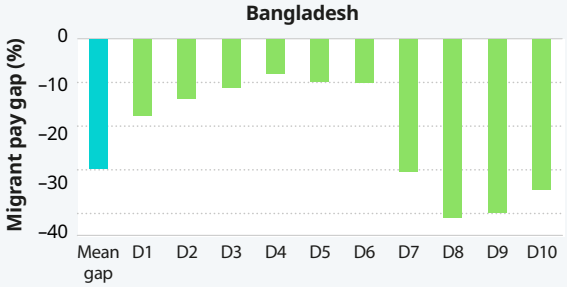
Albania



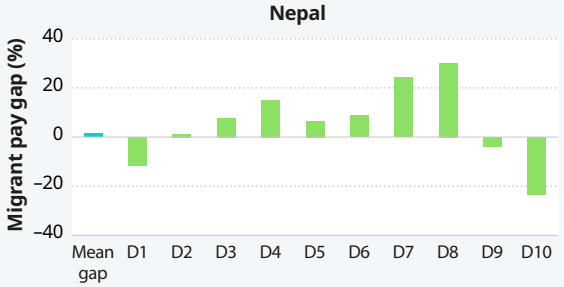
Jordan



Bangladesh



Nepal



(Figure A-4 continued on page 140)

(Figure A-4 continued from page 139)

Low- and middle-income countries (LMICs) (continued)

Note: D1-D10 are deciles that split the hourly wage distribution into ten equally sized groups (from the bottom 10 per cent wage earners up to the top 10 per cent wage earners). "Mean gap" repeats the estimated raw mean migrant pay gap in the economy based on hourly wages from figure 17. *the Plurinational State of Bolivia; ** the United Republic of Tanzania.

Source: ILO estimates based on survey data provided by national sources (see Appendix II).

▶ **Figure A-5: The share of migrant workers and nationals by top and bottom centiles and intervening deciles of the hourly wage distribution, 48 countries, latest years**

(Figure A-5 continued on page 142)

(Figure A-5 continued from page 141)

High-income countries (HICs) (continued)

High-income countries (HICs) (continued)

(Figure A-5 continued on page 144)

(Figure A-5 continued from page 143)

High-income countries (HICs) (continued)

High-income countries (HICs) (continued)

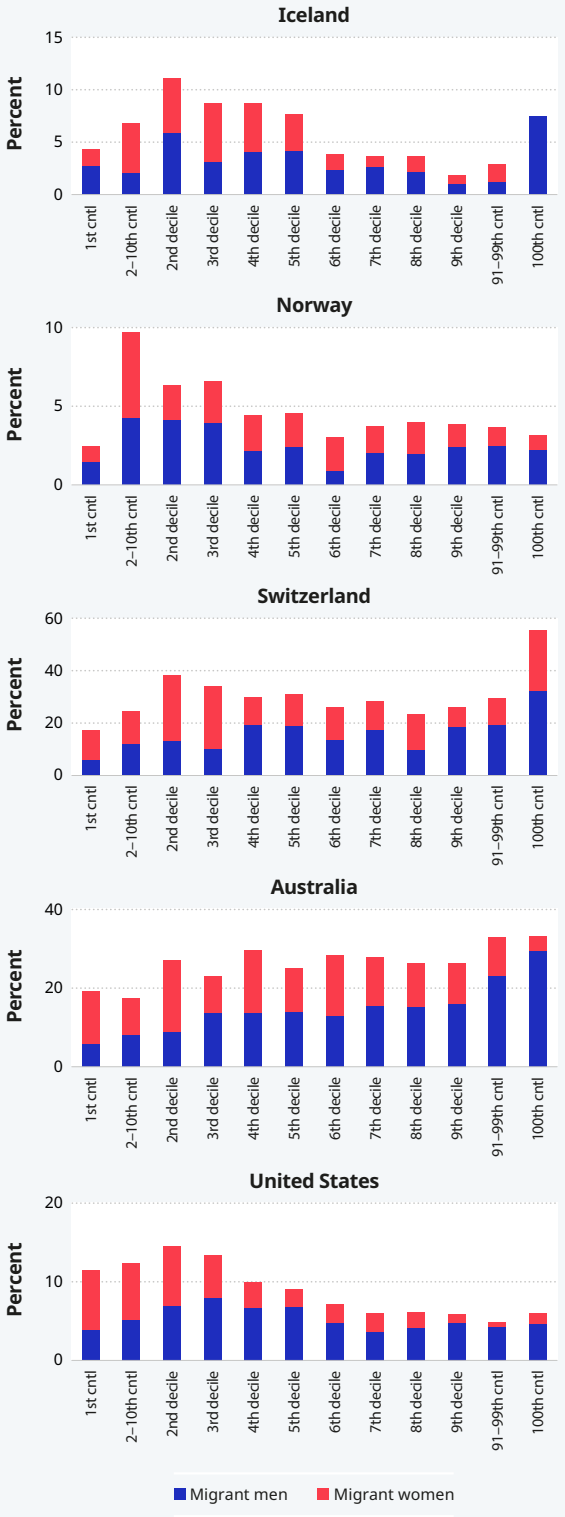
(Figure A-5 continued on page 146)

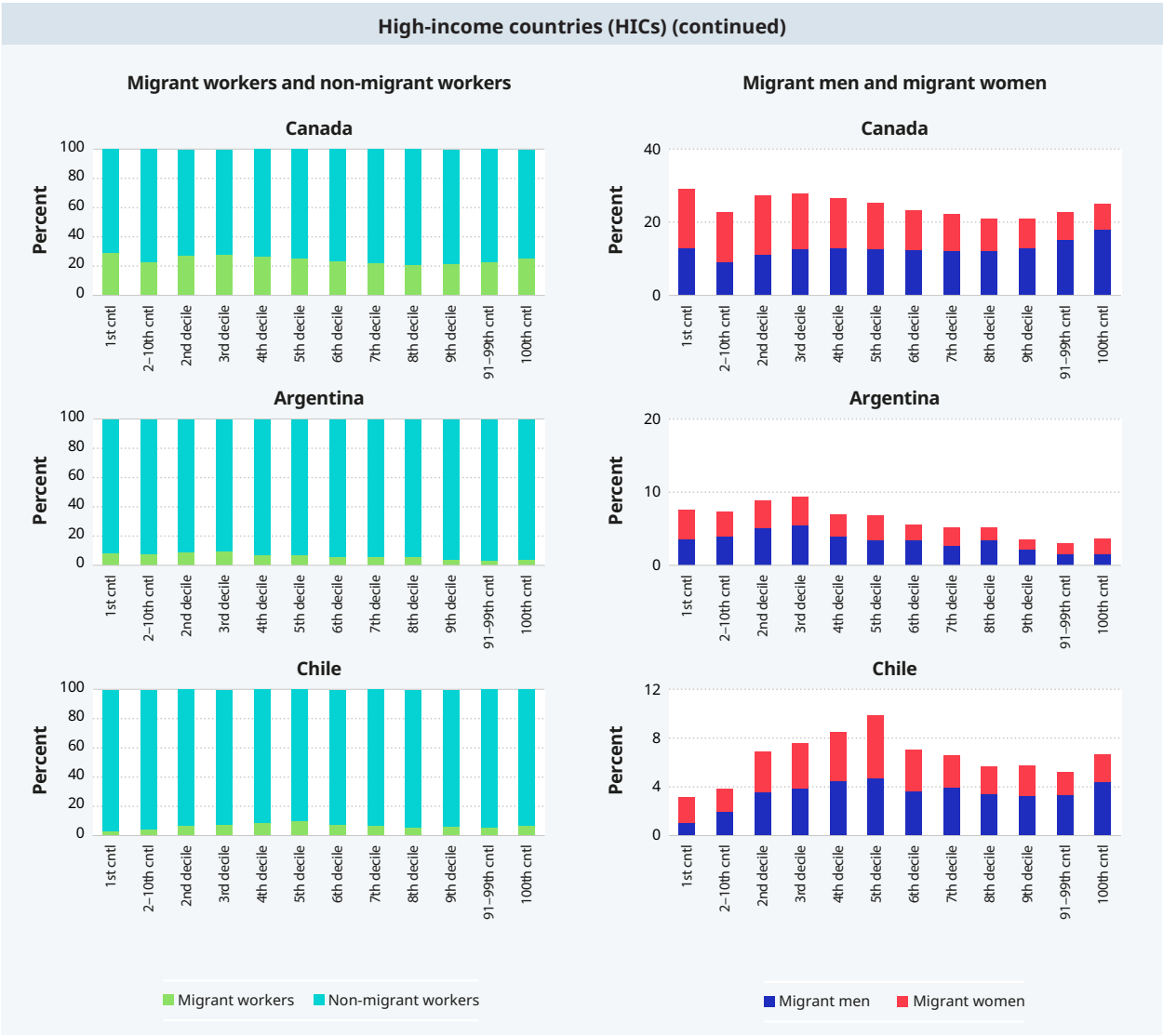
(Figure A-5 continued from page 145)

High-income countries (HICs) (continued)

Migrant workers and non-migrant workers

Migrant men and migrant women





Source: ILO estimates based on survey data provided by national sources (see Appendix II).

(Figure A-5 continued on page 148)

(Figure A-5 continued from page 147)

Low- and middle-income countries (LMICs)

Low- and middle-income countries (LMICs) (continued)

(Figure A-5 continued on page 150)

(Figure A-5 continued from page 149)

Low- and middle-income countries (LMICs) (continued)

Note: *the Plurinational State of Bolivia; ** the United Republic of Tanzania.

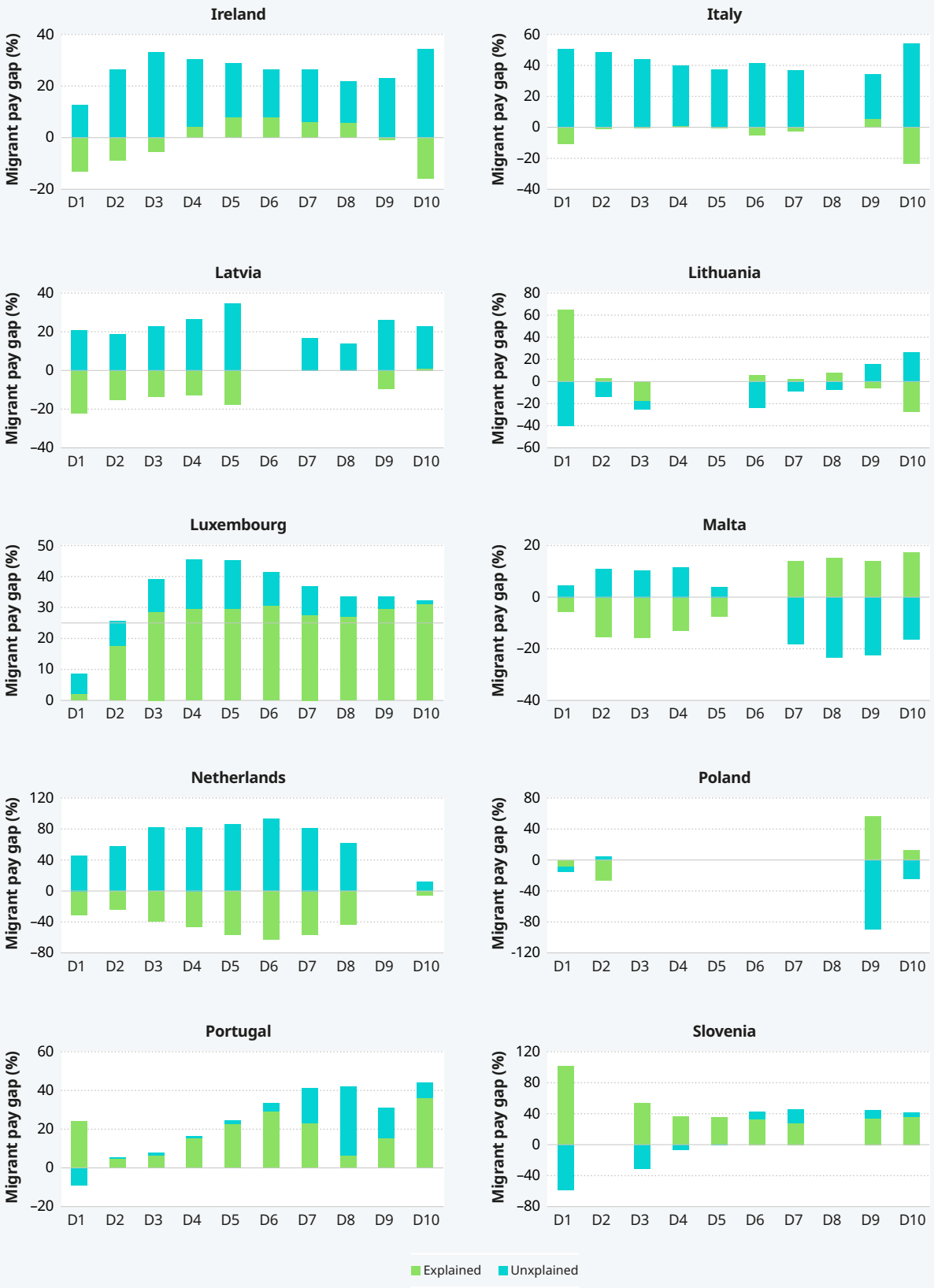
Source: ILO estimates based on survey data provided by national sources (see Appendix II).

▶ **Figure A-6: Decomposition of the migrant pay gap across the hourly wage distribution into explained and unexplained parts, selected countries, latest years**

(Figure A-6 continued on page 152)

(Figure A-6 continued from page 151)

High-income countries (HICs) (continued)

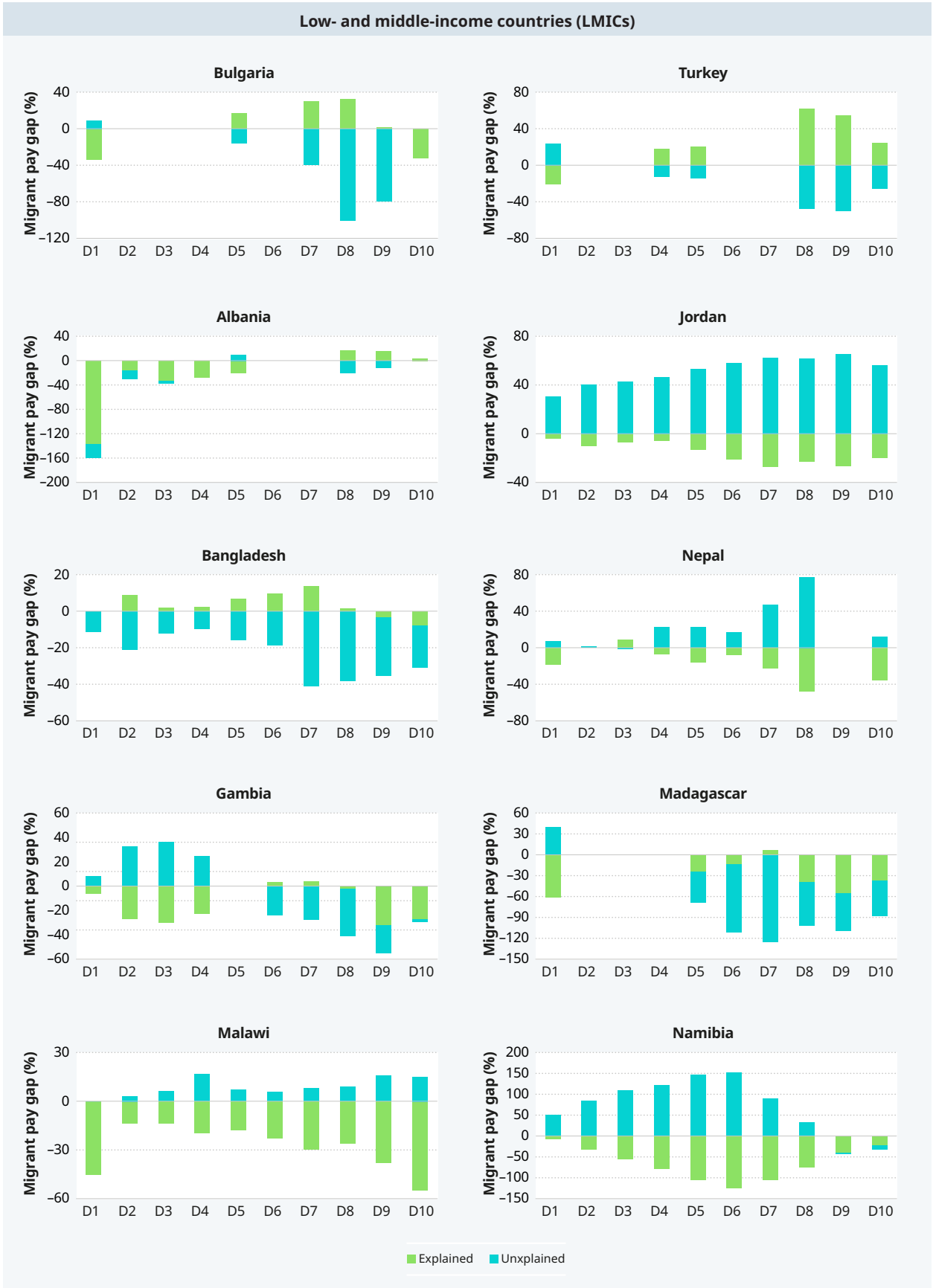


Note: D1-D10 are deciles that split the hourly wage distribution into ten equally sized groups (from the bottom 10 per cent wage earners up to the top 10 per cent wage earners).

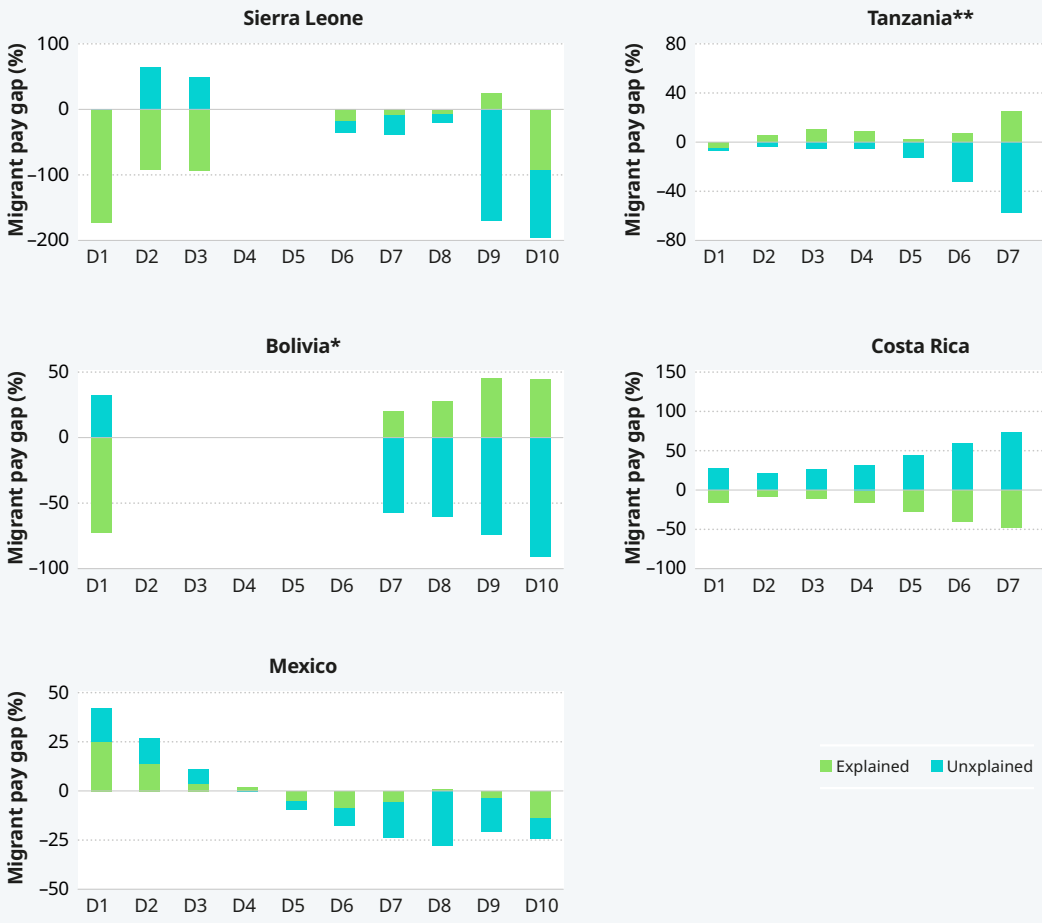
Source: ILO estimates based on survey data provided by national sources (see Appendix II).

(Figure A-6 continued on page 154)

(Figure A-6 continued from page 153)



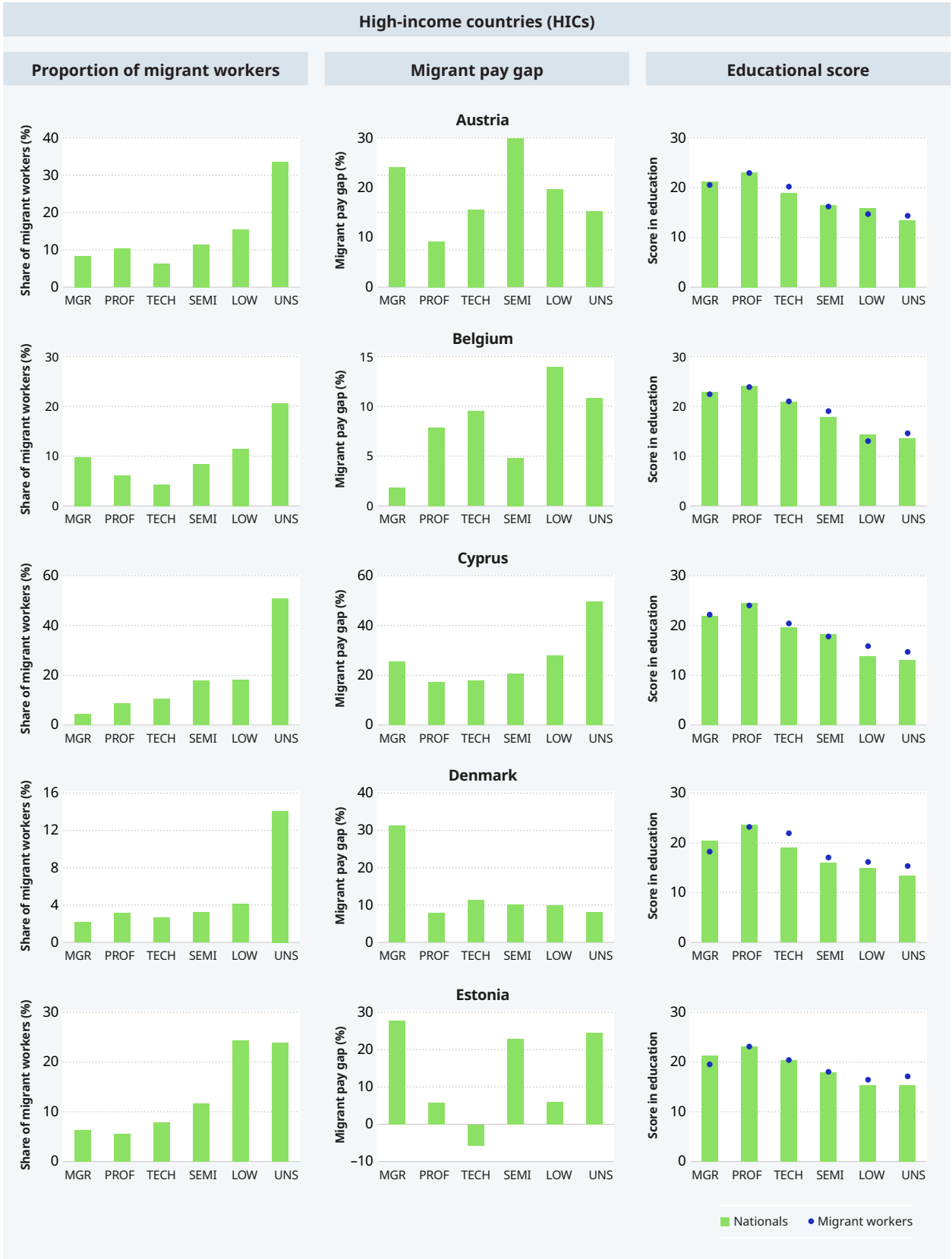
Low- and middle-income countries (LMICs) (continued)

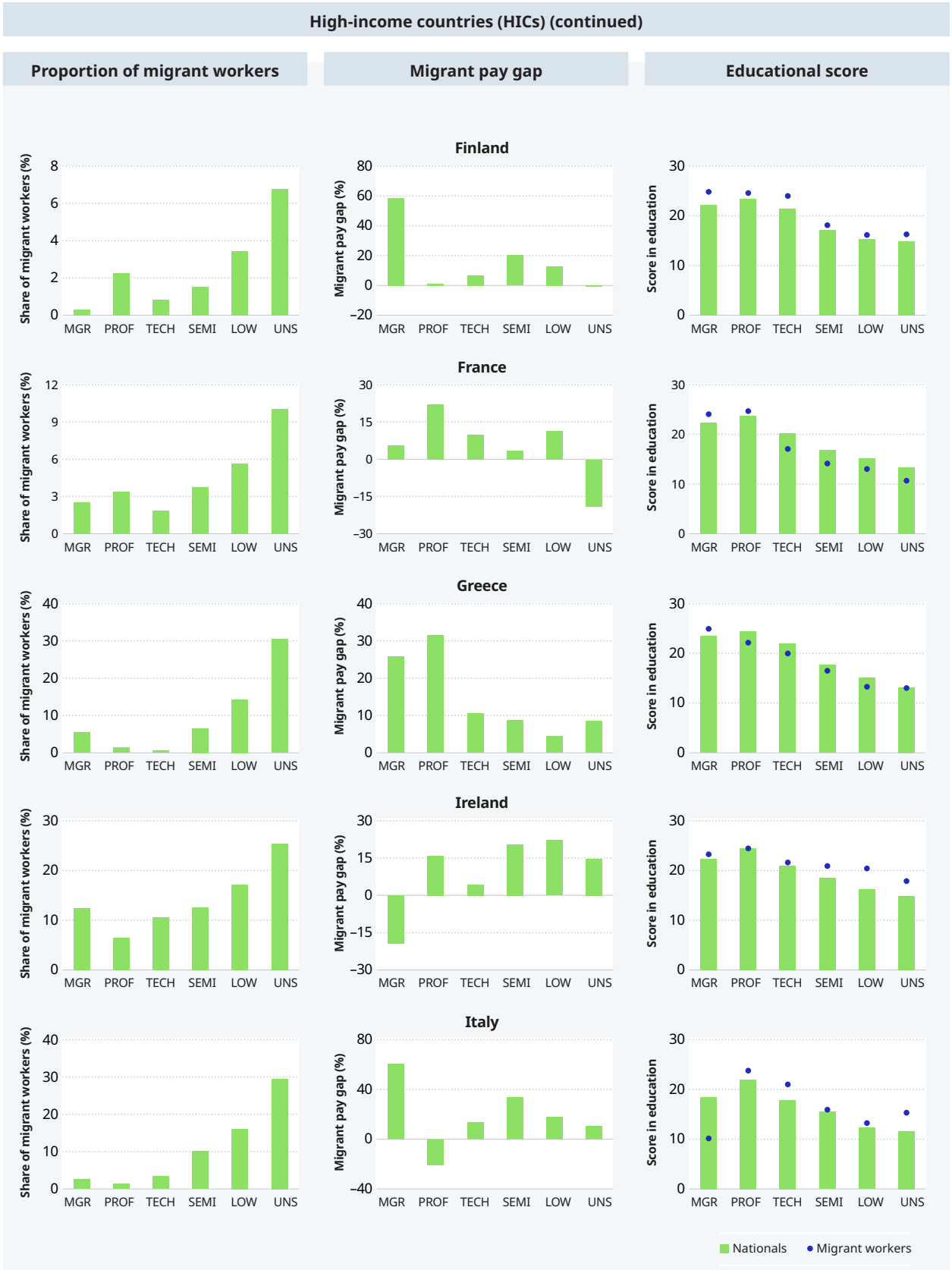


Note: D1-D10 are deciles that split the hourly wage distribution into ten equally sized groups (from the bottom 10 per cent wage earners up to the top 10 per cent wage earners). * the Plurinational State of Bolivia; ** the United Republic of Tanzania.

Source: ILO estimates based on survey data provided by national sources (see Appendix II).

▶ **Figure A-7: The proportion of migrant workers within occupations, education and the mean migrant pay gap, selected countries, latest years**

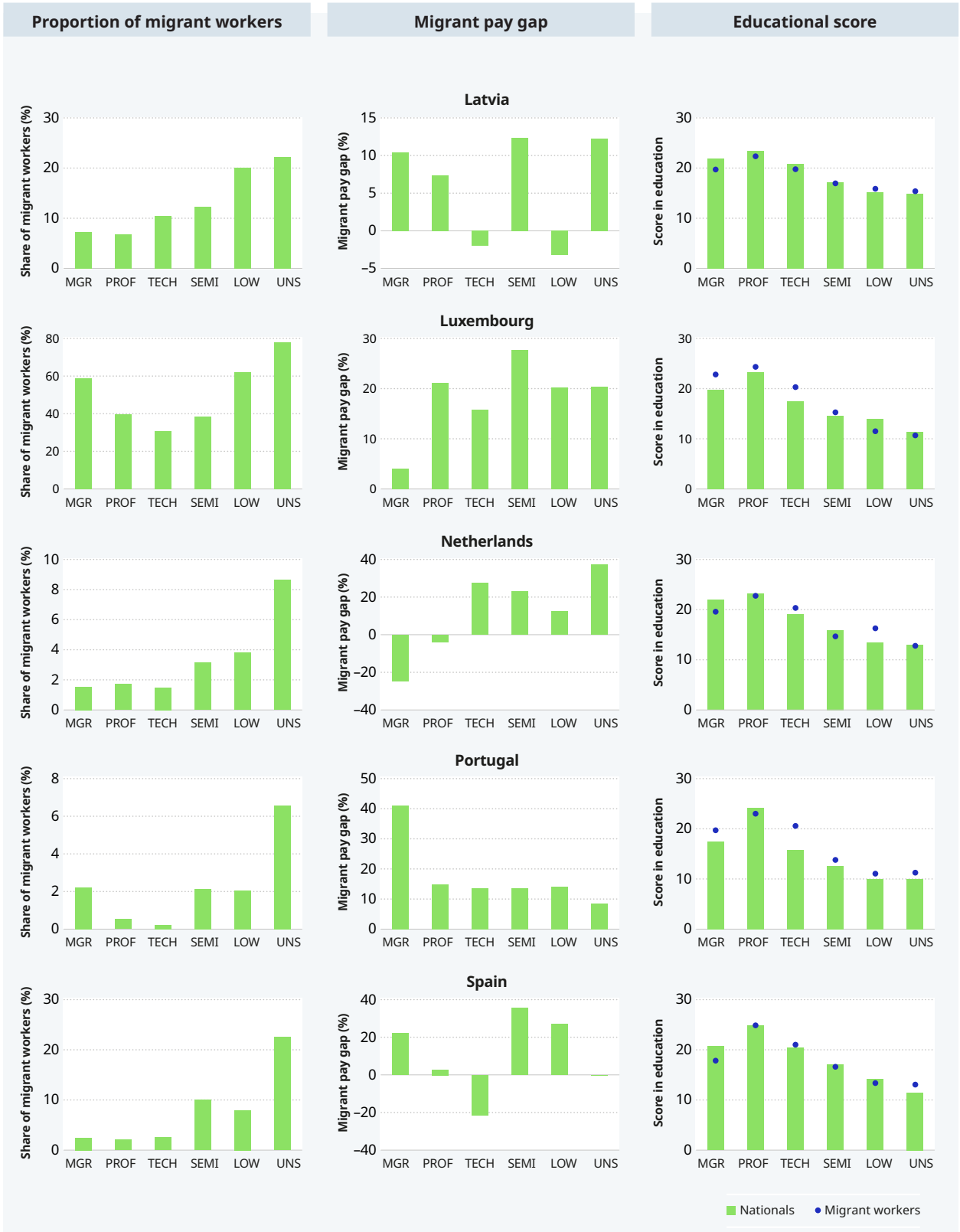


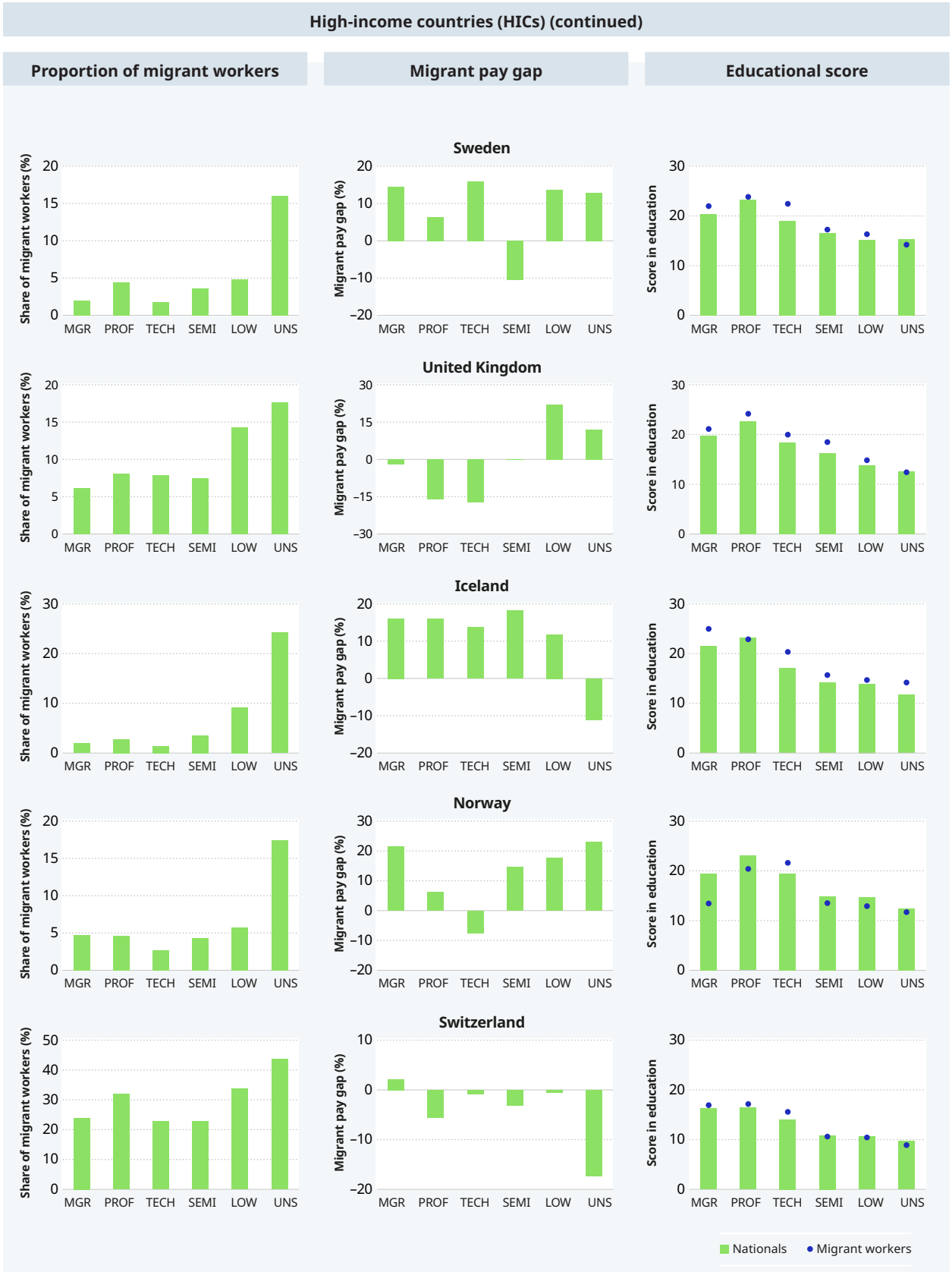


(Figure A-7 continued on page 158)

(Figure A-7 continued from page 157)

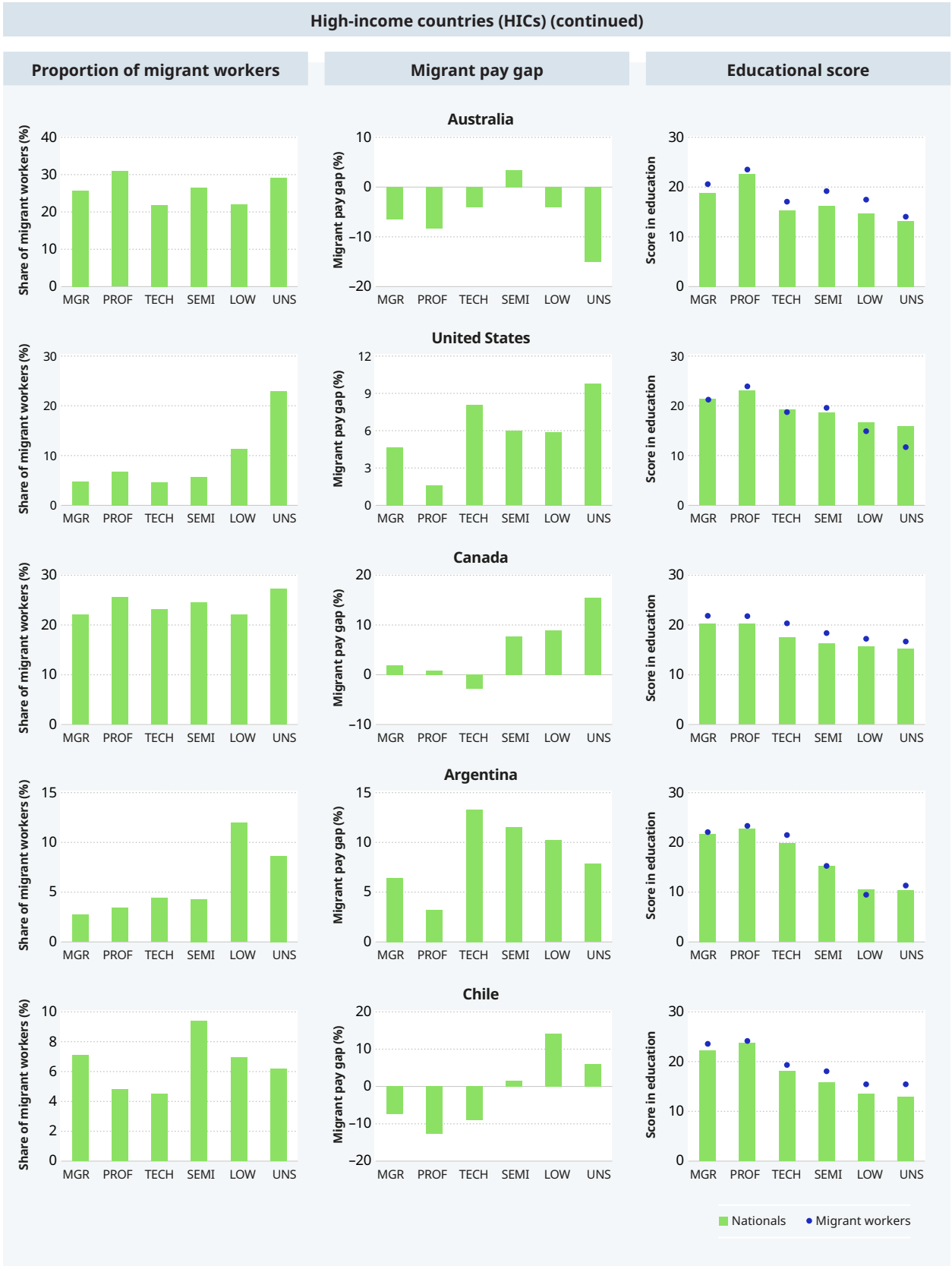
High-income countries (HICs) (continued)





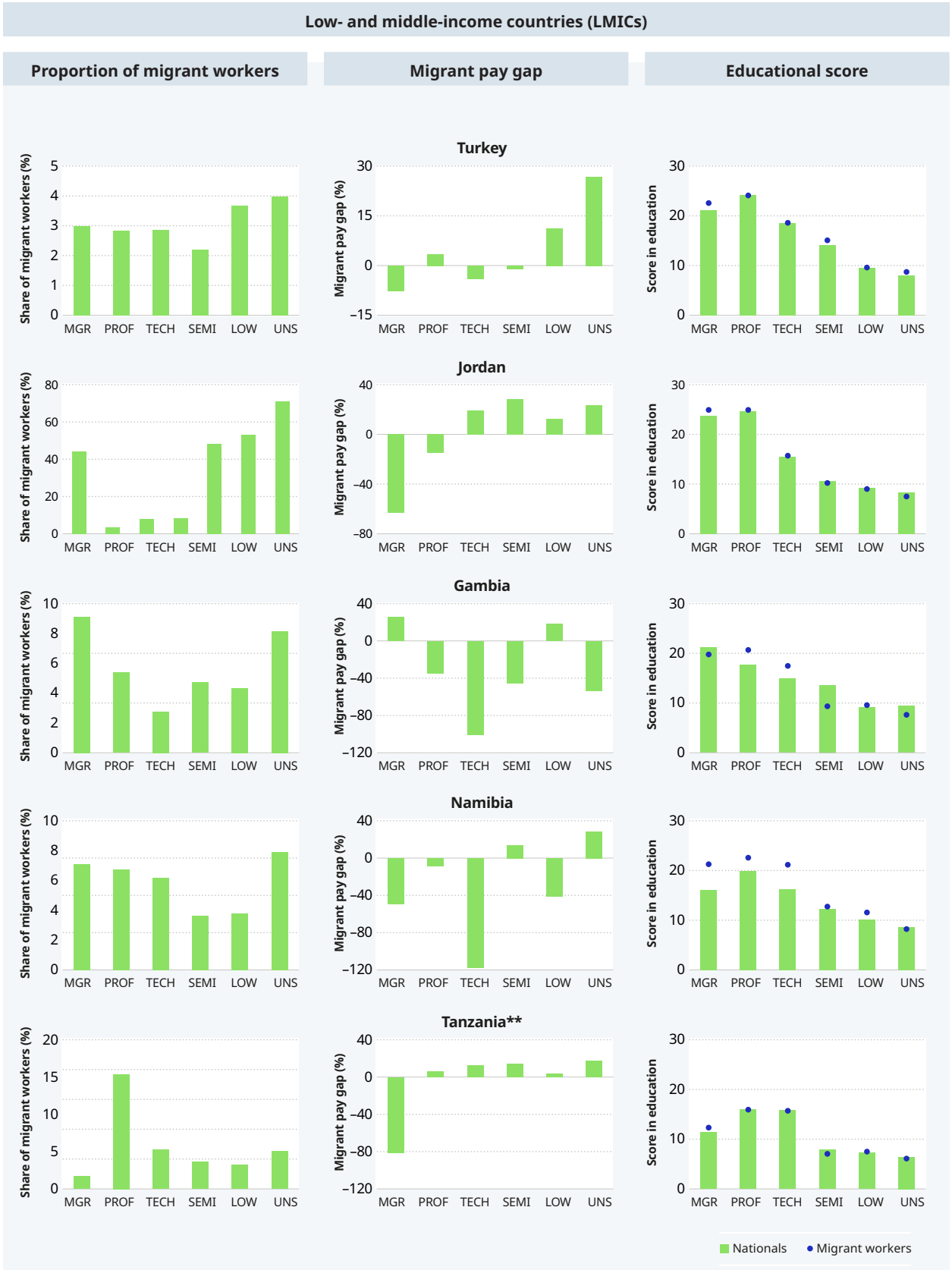
(Figure A-7 continued on page 160)

(Figure A-7 continued from page 159)



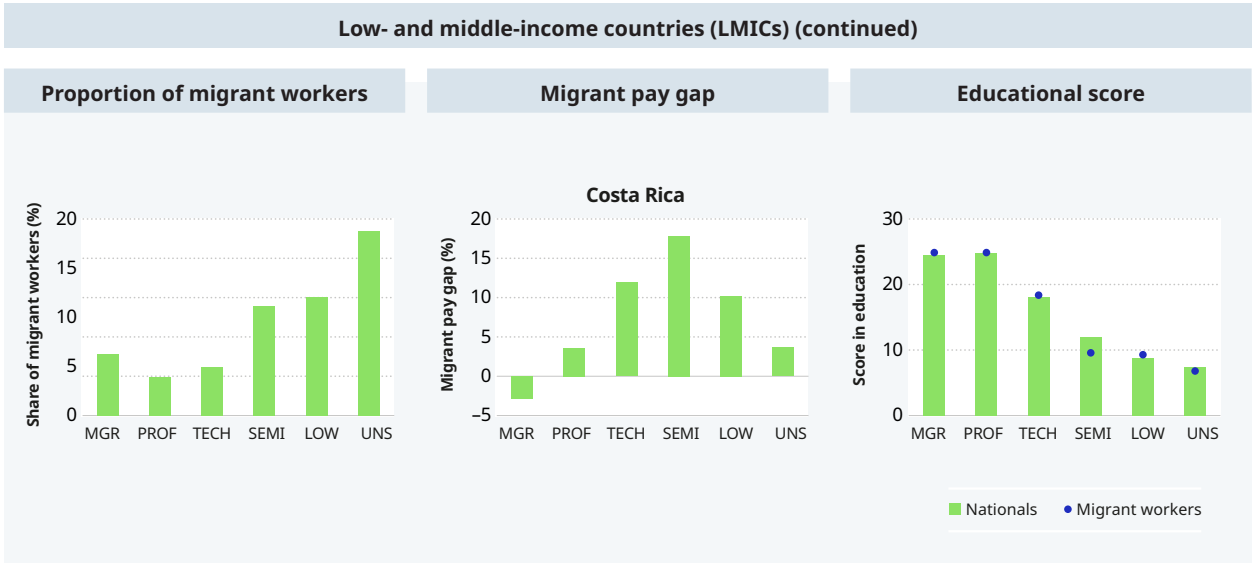
NOTE: MGR = Manager; PROF = Professionals; TECH = Technical; SEMI = Semi-skilled; LOW = Low-skilled; UNS = Unskilled.

Source: ILO estimates based on survey data provided by national sources (see Appendix II).



(Figure A-7 continued on page 162)

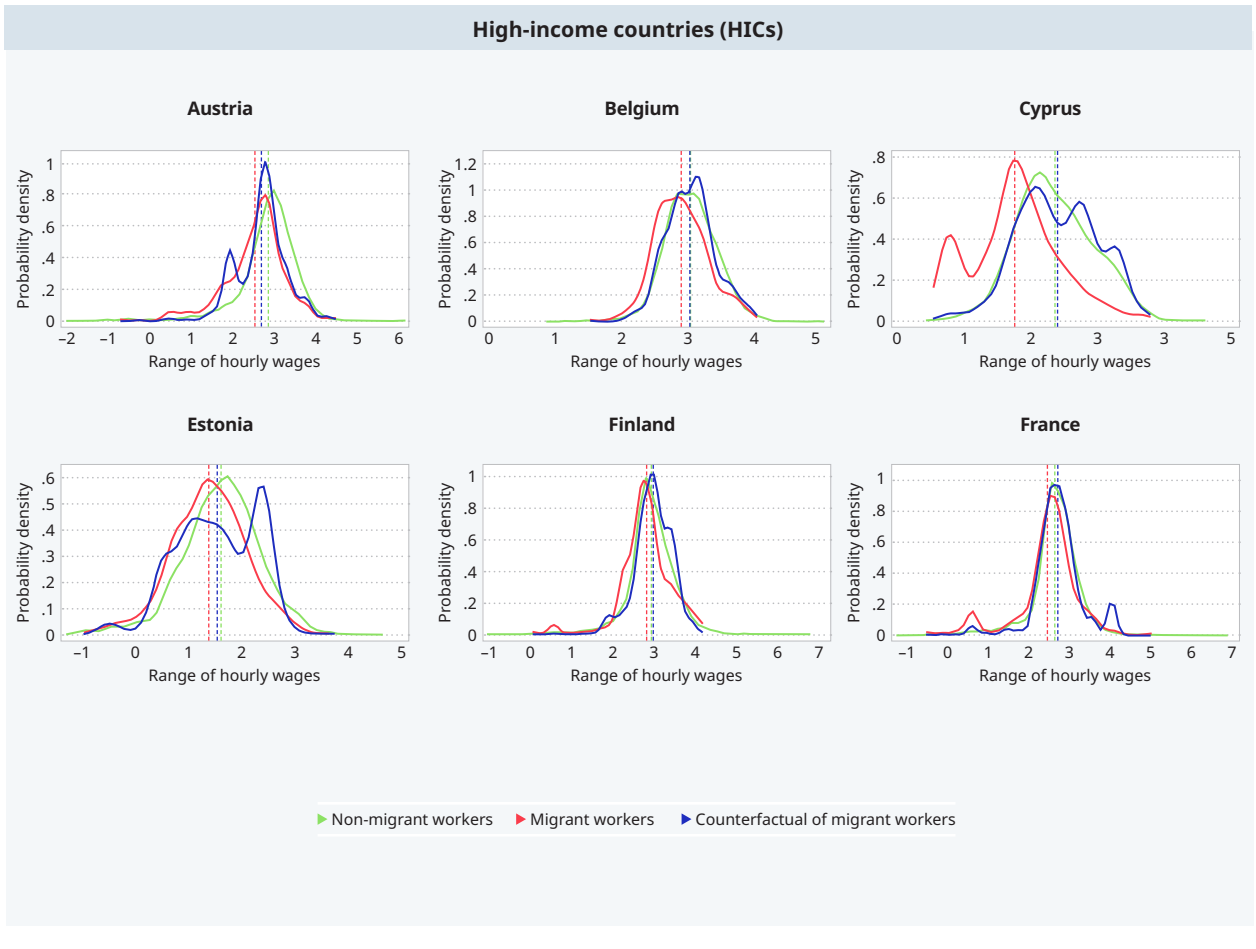
(Figure A-7 continued from page 161)



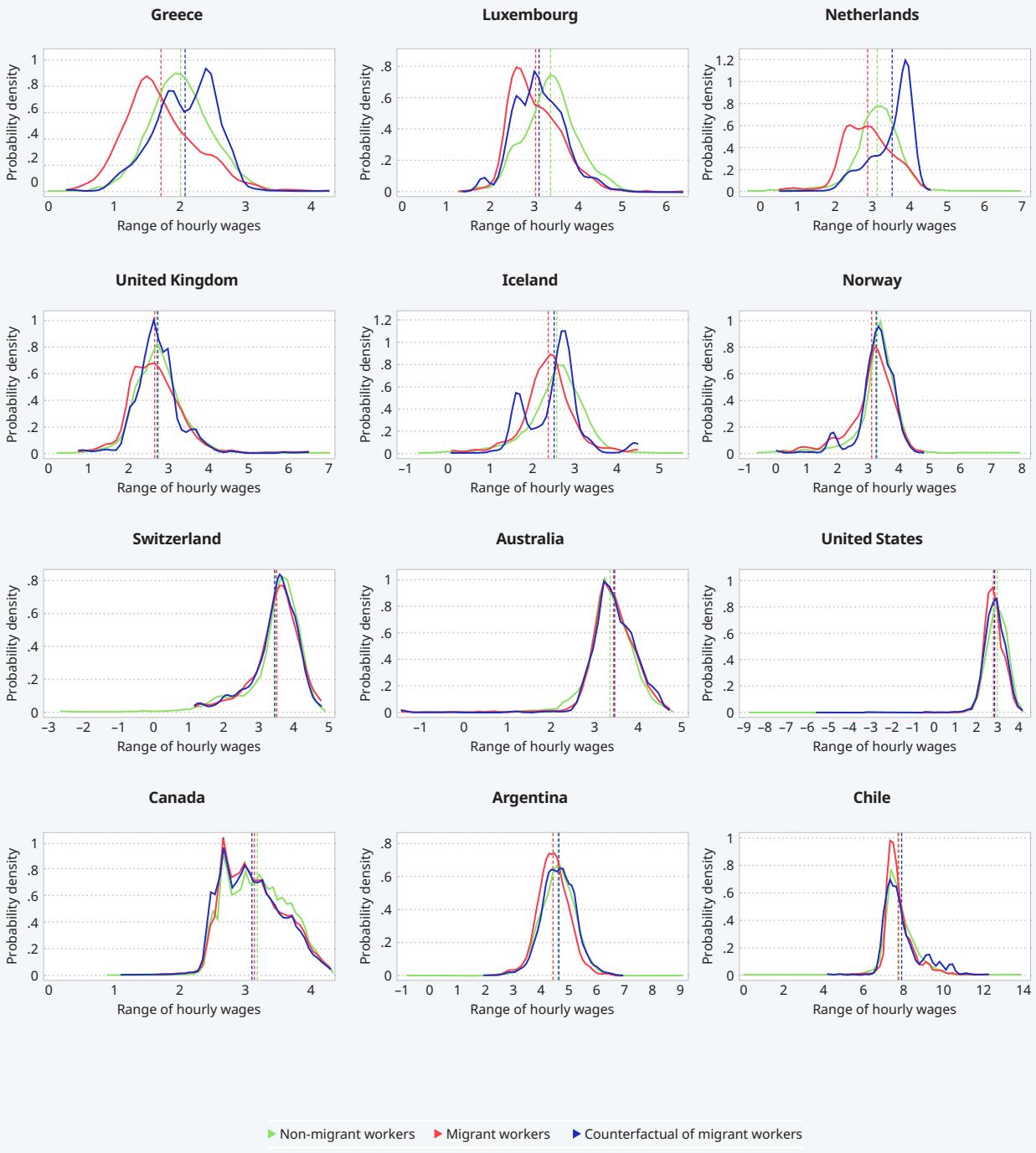
NOTE: MGR = Manager; PROF = Professionals; TECH = Technical; SEMI = Semi-skilled; LOW = Low-skilled; UNS = Unskilled. ** the United Republic of Tanzania.

Source: ILO estimates based on survey data provided by national sources (see Appendix II).

▶ **Figure A-8: The wage structure of migrant and non-migrant workers, with the counterfactual wage distribution of migrant workers, selected countries, latest year**

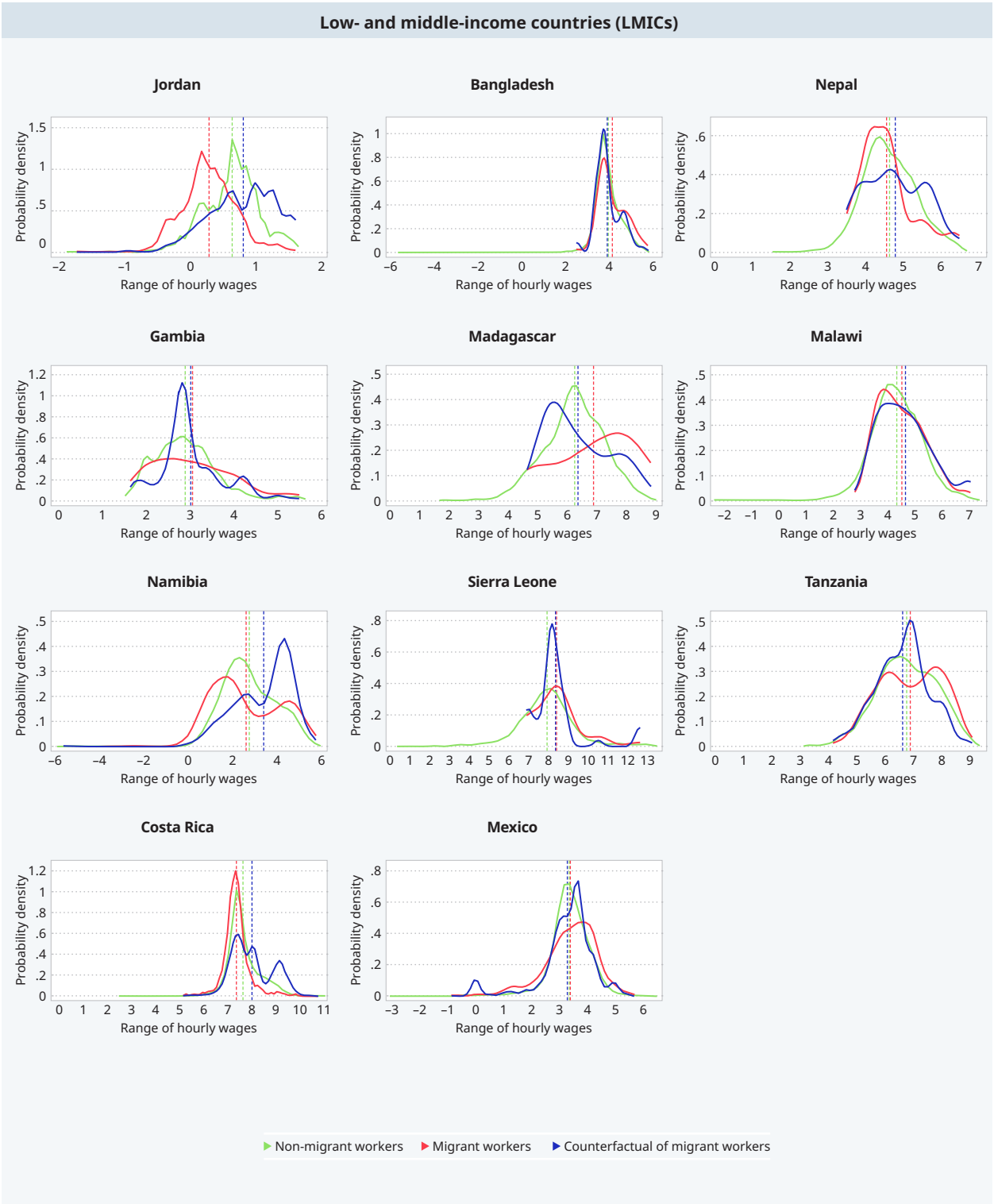


High-income countries (HICs) (continued)



(Figure A-8 continued on page 164)

(Figure A-8 continued from page 163)



Source: ILO estimates based on survey data provided by national sources (see Appendix II).

The migrant pay gap: Understanding wage differences between migrants and nationals

Based on recent data from 49 countries, this report analyzes differences in wages between migrant workers and nationals, providing a global overview of how migrant women and men fare in labour markets in low-, middle- and high-income countries.

The report compares the labour market characteristics of migrants and nationals that contribute to their economic success and the migrant pay gap, with special attention to gender differences within and among these groups. Focusing on wage workers, it studies the raw and the factor-weighted migrant pay gaps, shedding light on the "explained" and "unexplained" parts of the raw migrant pay gap.

In highlighting the persistent differences in wages between migrants and nationals, the report points to the urgency of implementing fair, evidence-based labour migration and labour market policies that contribute to more just societies, in line with the principles embodied in international labour standards.

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