



Migration and its impact on labour markets

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Abstract

Migration—encompassing both international movement across borders and internal movement within countries—is among the most consequential forces shaping global and national labour markets. By 2019, the number of international migrants stood at approximately 272 million, representing 3.5% of the world's population, while internal migration within developing countries involved hundreds of millions more. This paper examines the multidimensional relationship between migration and labour markets up to 2019–20, analysing wage effects, employment composition, occupational mobility, fiscal impacts, productivity spillovers, and the specific dynamics of remittances. Drawing on data from the International Labour Organization (ILO), World Bank, OECD, and national statistical sources, it finds that while migration produces net economic gains at the aggregate level, its distributional impacts—across skill groups, sectors, and geographies—are complex, contested, and politically charged.

Keywords: Migration, international migration, internal migration, labour markets, wage effects, employment composition

Introduction

Human migration is as old as civilisation, driven by the enduring interplay of economic opportunity, conflict, environmental stress, and social networks. In the modern era, however, migration has acquired unprecedented scale, complexity, and political salience. The refugee crisis generated by the Syrian civil war, the mass migration of Central Americans toward the United States, the role of Chinese and Indian diaspora in global knowledge networks, and the quiet but massive internal migration of rural workers to Chinese and Indian cities have each, in different ways, restructured labour markets and reshaped political economies.

Labour economics has long grappled with the question of how migration affects wages and employment for native workers. Early theoretical models predicted that an influx of immigrant workers would depress wages for native workers in competing occupations. However, decades of empirical research have produced a more nuanced picture—one in which the composition of migrant skills, the elasticity of labour demand, occupational complementarities, and the fiscal impacts of migration all condition the ultimate effects on host-country workers and the origin-country labour markets from which migrants depart.

This paper is organised as follows: Section 2 maps global migration trends through 2019–20. Section 3 analyses the theoretical frameworks. Section 4 examines wage and employment effects. Section 5 covers remittances and origin-country impacts. Section 6 addresses internal migration. Section 7 discusses refugee and forced migration impacts. Section 8 examines fiscal dimensions. Section 9 considers gender and vulnerable populations. Section 10 concludes.

Global Migration Trends

1. Scale and Composition

According to the UN Department of Economic and Social Affairs (UNDESA, 2019)^[12], the number of international migrants reached 271.6 million in 2019, up from 173 million in 2000 and 220.7 million in 2010. This represents 3.5% of the global population—a share that has grown slowly but steadily over two decades. Approximately two-thirds of all international migrants reside in high-income countries, while Europe (82.3 million) and Northern America (58.7 million) were the largest destination regions in 2019.

The international migrant stock is predominantly labour migrants. The ILO estimated in 2018 that approximately 164 million of the world's migrants were international migrant workers—people who move to another country for work purposes. Of these, the largest concentrations were in Northern, Southern, and Western Europe (67.8 million), Northern America (53.6 million), and the Arab states (24.8 million, primarily in the Gulf Cooperation Council countries). The top origin countries by migrant stock were India (17.5 million), Mexico (11.8 million), China (10.7 million), Russia (10.5 million), and Syria (8.2 million).

2. Migration to High-Income Destinations

The OECD's International Migration Outlook 2019 reported that permanent-type migration to OECD countries reached approximately 5.3 million in 2018, broadly stable relative to 2017 but substantially higher than the pre-2015 norm of around 4 million annually. The United States remained the largest single recipient (1.1 million permanent residents admitted in 2018), followed by Germany, the United Kingdom, Canada, Australia, and France.

Temporary and seasonal labour migration also expanded significantly, particularly in sectors such as agriculture, construction, hospitality, and domestic work. Guest worker programmes—Germany's Gastarbeiter legacy evolved into EU freedom of movement; the Gulf's Kafala system; Canada's Temporary Foreign Worker Programme; and Australia's Pacific Labour Scheme—funnelled millions of workers into specific occupational niches in host economies.

Region / Country	Migrant Stock 2019 (mn)	Share of Population (%)	Net Migration Rate (per 1,000)	Top Origin Countries
Europe	82.3	11.0%	+2.4	Syria, Ukraine, Morocco
Northern America	58.7	15.9%	+4.2	Mexico, India, China
Northern Africa & W. Asia	49.0	14.4%	+12.7	India, Pakistan, Egypt
Sub-Saharan Africa	23.6	2.3%	-0.8	Intra-regional movement
Central & Southern Asia	18.4	1.0%	-1.6	Afghanistan, India
Eastern & SE Asia	14.7	0.7%	-0.3	Indonesia, Philippines
Latin America & Caribbean	14.8	2.3%	-1.2	Venezuela, Colombia
Oceania	8.9	20.4%	+7.5	UK, India, China

Source: UNDESA International Migrant Stock 2019^[12]; World Bank World Development Indicators 2020.

Theoretical Frameworks

1. Neoclassical and Factor Endowment Models

The neoclassical model of labour migration posits that workers move from low-wage to high-wage regions until wage differentials are eliminated through market equilibration. In the host country, an influx of migrant workers shifts the labour supply curve rightward, exerting downward pressure on wages—particularly for workers who are close substitutes for migrants—and increasing returns to complementary factors of production (capital, high-skilled native labour). The magnitude of these wage effects depends critically on the elasticity of labour demand, the degree of skill substitutability, and the speed of capital adjustment.

The factor proportions model, drawing on Heckscher-Ohlin trade theory, predicts that migration of low-skilled workers to capital-abundant economies increases returns to capital and reduces returns to low-skilled labour. Conversely, migration of high-skilled workers may raise the productivity of both capital and complementary low-skilled labour through innovation and knowledge spillovers. This provides the theoretical basis for distinguishing between high-skilled ('brain gain') and low-skilled ('wage competition') migration effects.

2. Complementarity and Task-Based Models

An influential strand of contemporary labour economics has moved beyond simple substitution models to examine task-based complementarities between migrant and native workers. Peri and Sparber (2009)^[11] demonstrate that in the United States, native workers respond to low-skilled immigration by reallocating toward more communication-intensive tasks—leveraging their comparative advantage in language and host-country social capital—thereby mitigating wage competition and potentially enhancing productivity. This occupational upgrading effect has been documented in multiple European contexts and has important policy implications: the wage effects of immigration depend not only on skill levels but on the task structure of employment.

Wage and Employment Effects in Host Countries

1. Aggregate Evidence

The empirical literature on migration's wage effects is vast and contested. The seminal Mariel Boatlift study by Card (1990)^[3] found that the sudden arrival of approximately 125,000 Cuban immigrants in Miami in 1980 had virtually no discernible impact on wages or unemployment of Miami residents, including prior Cuban immigrants. This finding sparked decades of methodological debate, reignited by Borjas (2017)^[1] who, using different skill-group definitions, found larger negative wage effects for high school dropouts.

A comprehensive meta-analysis by Longhi, Nijkamp, and Poot (2005)^[9] of 348 estimates from 18 studies found that a 1 percentage point increase in the share of migrants in the labour force was associated with a 0.119% reduction in wages of native workers—a statistically significant but economically modest effect. For high-income OECD countries, the OECD's 2014 synthesis found that migration had negligible effects on aggregate unemployment and only modest negative effects on wages of the lowest-skilled native workers, while producing positive fiscal and productivity effects.

In Germany, the mass arrival of asylum seekers between 2015 and 2018—approximately 1.4 million cumulative arrivals—provided a natural experiment. Early studies (Gehrsitz and Ungerer, 2017; Dustmann *et al.*, 2017) found limited wage effects on native workers but some displacement of previously settled migrants in low-wage service sectors, consistent with intra-immigrant competition being stronger than native-immigrant competition.

2. Skill Composition Effects

The distributional effects of migration vary sharply by skill group. High-skilled migration—encompassing scientists, engineers, medical professionals, and technology workers—is generally associated with positive externalities: innovation, knowledge creation, and productivity spillovers. The United States' H-1B visa programme, which channelled approximately 400,000 high-skilled workers annually (predominantly from India and China) into technology and professional sectors, was estimated to contribute significantly to US patent activity, with Kerr and Lincoln (2010)^[8] finding that a 10% increase in H-1B admissions was associated with a 4.7% increase in total patents.

Low-skilled migration has more ambiguous effects, with larger estimated negative wage impacts concentrated among prior low-skilled migrants and the least-educated segment of the native workforce. In Gulf Cooperation Council (GCC) countries, where migrant workers under the Kafala sponsorship system constituted 50–90% of the labour force in Qatar, UAE, Bahrain, and Kuwait by 2019, wages of low-skilled domestic workers were systematically suppressed by the abundant supply of contract workers from South Asia and Southeast Asia willing to accept wages far below what domestic workers would require.

Study / Context	Wage Effect (native workers)	Employment Effect	Key Finding
Card (1990) ^[3] — Mariel Boatlift, USA	~0% (negligible)	Negligible	No discernible labour market disruption
OECD Synthesis (2014) — OECD average	-0.1% to -0.3%	Negligible	Modest wage effects, positive fiscal balance
Peri (2012) — US states panel	+0.4% (LR)	Positive (0.3%)	Complementarity raises native wages
Dustmann <i>et al.</i> (2017) — Germany	-0.2% (low-skill)	Minimal	Intra-migrant competition stronger than native
Manacorda <i>et al.</i> (2012) — UK	-0.5% (migrants)	Negligible (natives)	Migrants compete mainly with prior migrants
GCC Kafala system (2019)	Suppressed domestic wages	Native job protection	Bifurcated labour market; domestic preference policies

Source: Compiled from academic literature; OECD International Migration Outlook 2019^[10].

Remittances and Origin-Country Labour Markets

1. Scale of Global Remittances

Remittances—money sent by migrants to their home countries—constitute one of the largest and most stable sources of external finance for developing countries, surpassing official development assistance (ODA) and, in many countries, FDI. According to the World Bank's Migration and Development Brief (2019), global remittance flows to low- and middle-income countries reached a record \$554 billion in 2019, up 8.9% from \$508 billion in 2018 and nearly four times the \$130 billion recorded in 2000.

The top recipient countries by absolute remittance volume in 2019 were India (\$83.1 billion), China (\$68.4 billion), Mexico (\$38.7 billion), the Philippines (\$35.1 billion), and Egypt (\$26.8 billion). As a share of GDP, remittances were most significant for smaller economies: Tonga (37.6%), Kyrgyzstan (29.2%), Tajikistan (28.8%), Haiti (22.7%), Nepal (26.4%), and El Salvador (20.8%) were among the most remittance-dependent economies in 2019.

Top Recipient Country	Remittances 2019 (US\$ bn)	Share of GDP (%)	Primary Source Countries
India	83.1	2.9%	UAE, USA, Saudi Arabia, Kuwait
China	68.4	0.5%	USA, Japan, Australia, Canada
Mexico	38.7	3.3%	USA (95%+ of total)
Philippines	35.1	9.3%	USA, UAE, Saudi Arabia, Singapore
Egypt	26.8	9.7%	Saudi Arabia, UAE, Kuwait
Nigeria	23.8	5.3%	USA, UK, Italy
Pakistan	21.9	7.8%	Saudi Arabia, UAE, USA, UK
Bangladesh	18.3	5.9%	Saudi Arabia, UAE, Malaysia

Source: World Bank Migration and Development Brief 32 (April 2020); World Development Indicators 2020.

2. Labour Market Effects in Origin Countries

The departure of workers for international employment creates a complex set of effects in origin-country labour markets. In the short run, emigration reduces labour supply, potentially raising wages for remaining workers in the same skill category—a channel often called the 'wage effect of emigration.' Evidence from the Philippines (Yang, 2008)^[15], Mexico (Hanson, 2007), and Eastern Europe (Dustmann *et al.*, 2015) supports modest positive wage effects on remaining workers in high-emigration communities.

However, the 'brain drain' problem—the emigration of highly educated and skilled workers from developing countries—represents a potentially significant loss of human capital. Sub-Saharan Africa loses a disproportionate share of its medical professionals to emigration: the WHO estimated in 2019 that over 57,000 African-born physicians practiced in OECD countries, a number approaching the stock of physicians practicing on the continent itself. This represents an enormous implicit subsidy from poor to rich countries, as the education costs of these professionals are borne by origin countries while the productivity benefits accrue abroad.

Remittances partially offset these losses by enabling recipient households to invest in health, education, and small enterprise formation—building human capital and productive capacity. Household survey data from Bangladesh, Nepal, and the Philippines consistently show that remittance-receiving households spend higher shares on education and healthcare than comparable non-receiving households, suggesting an intergenerational human capital effect.

Internal Migration and Domestic Labour Markets

1. Rural-to-Urban Migration

Internal migration—movement within national borders, typically from rural agricultural areas to urban industrial and service centres—has been the dominant form of migration in large developing economies. In India, the 2011 Census recorded approximately 454 million internal migrants (both lifetime and recent movers), with inter-state migration estimated at 60 million. The Economic Survey of India 2016–17 estimated annual inter-state labour migration at approximately 9 million persons per year, primarily from Uttar Pradesh, Bihar, Rajasthan, and Madhya Pradesh to Gujarat, Maharashtra, Delhi, and Tamil Nadu.

China's internal migration has been even more dramatic. The hukou (household registration) system historically restricted rural-to-urban movement, but its gradual relaxation from the 1980s enabled what is arguably the largest internal migration in human history. The National Bureau of Statistics of China estimated the rural migrant worker population ('mingong') at approximately 291 million in 2019, having peaked at 288 million in 2018. These workers, predominantly employed in manufacturing, construction, and low-wage urban services, were central to China's export-led industrialisation and contributed approximately 20% of GDP growth between 2000 and 2018 according to World Bank estimates.

2. Urban Labour Market Effects

Internal migration has profoundly shaped urban labour markets in both supply and wage terms. In India's major cities—Mumbai, Delhi, Bengaluru, Surat, and Tirupur—migrant workers dominate construction, domestic work, street vending, textile manufacturing, and hospitality. Studies by Mitra (2010) and Srivastava (2012) found that the massive influx of low-skilled circular migrants into Indian cities depressed wages in casual, informal labour markets, while higher-skilled interstate migrants in manufacturing and services experienced wage premiums reflecting skills scarcity in destination cities.

The COVID-19 pandemic of 2020, while beyond the primary scope of this paper, provided a devastating natural experiment: the sudden reverse migration of an estimated 11–14 million internal migrants in India during the March–May 2020 lockdown—the 'reverse migration crisis'—exposed the extreme vulnerability of this population and the structural importance of migrant labour to urban economies. The immediate impact on urban construction, domestic services, and small manufacturing was severe, underscoring how deeply urban labour markets had come to depend on migrant labour flows.

Forced Migration and Refugee Labour Markets

1. Scale of Forced Displacement

The UNHCR's Global Trends report (2019) ^[13] recorded 79.5 million forcibly displaced people worldwide at end-2019—the highest figure ever recorded. This included 29.6 million refugees (including 5.6 million Palestinian refugees under UNRWA), 45.7 million internally displaced persons (IDPs), and 4.2 million asylum seekers. The principal origin countries were Syria (6.6 million refugees), Venezuela (3.7 million), Afghanistan (2.7 million), South Sudan (2.2 million), and Myanmar (1.1 million).

Turkey hosted the world's largest refugee population (3.6 million, predominantly Syrian), followed by Colombia (1.8 million Venezuelan refugees and migrants), Pakistan (1.4 million), Uganda (1.4 million), and Germany (1.1 million). The concentration of refugee populations in developing countries—84% of all refugees were hosted by low- and middle-income countries in 2019—placed disproportionate strain on already pressured labour markets.

2. Refugee Labour Market Integration

Research on refugee labour market integration has grown substantially in recent years, with mixed findings. In host countries with relatively permissive work rights for refugees—Sweden, Canada, Germany—early integration studies found that refugees face significant barriers including credential non-recognition, language deficits, discrimination, and interrupted human capital accumulation. Brell, Dustmann, and Preston (2020) ^[2] synthesised evidence showing that refugees typically experience worse early labour market outcomes than economic migrants but exhibit faster subsequent wage growth as language skills and host-country experience accumulate.

In Turkey, which granted temporary protection status to Syrian refugees but restricted formal labour market access until 2016, large-scale informal employment emerged. Firms in labour-intensive sectors—textiles, food processing, construction—employed Syrian refugees at significantly below-minimum wages, driving competitive pressure on Turkish low-skill workers. Ceritoglu *et al.* (2017) ^[4] found that the Syrian refugee influx reduced informal employment rates of Turkish workers by approximately 2.5 percentage points, as natives shifted to formal employment while Syrians occupied informal roles.

Fiscal and Public Finance Dimensions

The fiscal impact of migration—the net balance of migrants' tax contributions versus their consumption of public services—has been among the most contested issues in the political economy of immigration. The OECD's 2013 study 'The Fiscal Impact of Immigration in OECD Countries' concluded that the net fiscal impact of immigration was small—generally within plus or minus 0.5% of GDP in OECD countries—and that migrants' fiscal contribution depended strongly on their skill level, age at arrival, employment rate, and the generosity of the host country's welfare system.

In the United States, the National Academy of Sciences' comprehensive 2016 study 'The Economic and Fiscal Consequences of Immigration' estimated that while first-generation immigrants represented a net fiscal cost (averaging -\$1,600 per person per year across all levels of government), the second generation of immigrants—the US-born children of immigrants—were among the strongest net fiscal contributors of any population group, averaging +\$1,700 per person per year. This finding underscores the importance of a multi-generational perspective in fiscal impact assessment.

For major remittance-sending countries, the fiscal dividend of emigration includes reduced unemployment pressure, reduced social benefit claims, and the foreign exchange earnings generated by remittances. Pakistan's \$21.9 billion in remittances in 2019 exceeded its total exports of goods and substantially supported the current account, reducing the government's external financing requirement.

Gender Dimensions of Migration

Female migrants constituted approximately 47.9% of all international migrants in 2019, but their labour market experiences differed markedly from male migrants. Women migrants were disproportionately concentrated in domestic work, caregiving, nursing, and hospitality—often in informal arrangements with limited labour protections. The ILO estimated in 2015 that approximately 8.4 million migrant domestic workers were employed globally, predominantly women from the Philippines, Indonesia, Ethiopia, Sri Lanka, and Nepal working in the Middle East, Hong Kong, Singapore, and GCC countries.

The 'feminisation of migration'—the growing share of women migrating independently for economic purposes rather than as dependents—has been a significant trend since the 1990s. Female migrants from the Philippines represented approximately 55% of total Overseas Filipino Workers (OFWs) by 2019, generating \$35.1 billion in total OFW remittances. Studies consistently show that female migrants remit higher shares of their income than male migrants and that remittances received by women within households are more likely to be directed toward children's education and health outcomes.

At the same time, female migrants—particularly those in domestic and care work—face elevated risks of exploitation, abuse, wage theft, and denial of labour rights. The ILO's Domestic Workers Convention (C189, 2011) had been ratified by only 29 countries by 2019, leaving the majority of migrant domestic workers without equivalent labour protections to other workers.

Conclusion

Migration's relationship with labour markets is one of the most studied and most politically sensitive questions in contemporary economics. The evidence accumulated through 2019–20 supports several broad conclusions. At the aggregate level, migration generates net economic gains—through productive complementarities, fiscal contributions, innovation, and remittance flows that support investment in origin countries. The fear of large-scale native unemployment or wage collapse due to immigration is, in most well-functioning labour markets with flexible occupational structures, not supported by the empirical evidence.

However, distributional effects matter enormously. The workers most likely to experience wage competition from immigrants are those who are closest substitutes—often prior migrants and the least-educated segment of the native workforce. Policies that assist labour market adjustment, invest in skill upgrading, and ensure that the fiscal gains from immigration are shared broadly can transform immigration from a zero-sum into a positive-sum outcome for receiving societies.

For origin countries, the picture is similarly nuanced. Remittances—reaching a record \$554 billion in 2019—provide vital macroeconomic support and household welfare gains, but brain drain poses genuine long-run risks for human capital accumulation. Internal migration has been the engine of structural transformation in Asia's largest economies, but its benefits have been accompanied by urban informality, spatial inequality, and severe vulnerability for migrant workers—as the 2020 COVID-19 crisis devastatingly illustrated.

The governance of migration—through bilateral labour agreements, portability of social benefits, credential recognition frameworks, anti-trafficking measures, and refugee integration policies—will be among the defining institutional challenges of the 2020s. Getting it right requires evidence-based policymaking that resists both the nativist impulse to restrict all migration and the laissez-faire tendency to ignore its genuine distributional consequences.

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