

Statistical Report

Special Issue

Stepwise and Return Migration between the Gulf, Europe and North America – How do GCC Countries Fare in the Global Competition for Talent?

The Global Competition for Talents: Comparative Overview of Highly Skilled Emigration Trends to Canada, France, Germany, the UK, and the US

The Global Competition for Talents

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Executive Summary

This report provides a comparative analysis of highly skilled migration to five major OECD destination countries—Canada, France, Germany, the United Kingdom (UK), and the United States (US)—with the objective of assessing both their attractiveness to highly skilled migrants and their capacity for long-term retention and settlement. In an increasingly competitive global context involving the Gulf states, the report examines not only where highly skilled migrants go, but how destination-country institutions structure entry, temporariness, and access to permanence.

The analysis combines OECD stock data on foreign-born, tertiary-educated migrants with national administrative flow data on visas, permits, renewals, and permanent residence. To ensure conceptual clarity, the report adopts a four-stage analytical framework distinguishing between entry authorisation, first-time access to skilled employment, continuation through renewals, and long-term stabilisation. These stages are analysed as distinct administrative processes rather than as individual trajectories.

Stock data show that Canada, the US, and the UK host the largest stocks of highly skilled migrants, reflecting long-standing selection mechanisms favouring education and professional experience. Germany and France host smaller relative stocks, though Germany has experienced notable recent growth. Across all five countries, highly skilled migrants display strong labour market attachment but also persistent risks of skills mismatch and overqualification. Nationality-specific stock patterns reveal the cumulative imprint of past migration regimes, with Indian and Filipino nationals dominating highly skilled stocks in North America and the UK, while Tunisian, Egyptian, and Pakistani nationals show more destination-specific profiles.

Flow data organised across the four stages highlight structurally distinct national models. Canada stands out as a settlement-oriented and explicitly sequenced system, where high inflows and renewals are

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matched by strong and predictable access to permanent residence. Germany represents a gradual settlement model, characterised by rising entries and renewals but extended intermediate phases before stabilisation. France remains a controlled and niche-oriented system. The UK combines high openness at entry with increasingly constrained settlement prospects, while the US operates at a very large scale but remains structurally constrained, with prolonged temporariness driven by numerical caps and backlogs.

Overall, the report confirms that temporariness has become a durable feature of highly skilled migration, but with very different meanings across systems. In some countries, it functions as a managed progression toward settlement; in others, it reflects long-term uncertainty despite sustained labour demand. These findings are particularly relevant for highly skilled migrants originating from or transiting through the Gulf, as they show that migration to OECD countries does not uniformly resolve temporariness, but may instead reconfigure it under different institutional forms.

The report concludes that institutional design—more than labour demand alone—shapes the long-term outcomes of highly skilled migration, with important implications for retention, equity, and global competition for talent.

Introduction

Over the past two decades, the Gulf Cooperation Council (GCC) countries have emerged as one of the world's most significant migration hubs. Today, the six GCC states constitute the largest migration hub in the Global South and the third largest worldwide, after North America and the European Union. At the same time, the region is undergoing profound economic and social transformations. Driven by ambitious national reform agendas aimed at transitioning from oil-based, rentier economies to diversified, knowledge-based development models, Gulf states are increasingly competing on a global scale to attract and mobilise highly skilled human capital.

The GLMM-KAS research project 'Highly Skilled Migration to the Gulf States',¹ which seeks to situate Gulf migration regimes within the broader global competition for talent, shows that while Gulf states attract global talent for national development, they struggle to retain it. The GCC mainly serves as a temporary hub where skilled migrants gain experience and wealth before moving onward to Europe or North America.

Due to a lack of data on interregional migration—specifically, onward migration of non-Gulf nationals to other destinations—the scale and nature of such movements remain unclear. As a result, this report offers a global comparative analysis of highly skilled migration to the five major migrant-receiving OECD² countries: Canada, France, Germany, the UK, and the US. Although step-migration from Gulf states is included in these patterns, it cannot be examined separately.

The core objective of the report is twofold. First, it seeks to measure the relative attractiveness of the five destination countries for highly skilled migrants, as reflected in entry volumes, permit issuances, and the composition of migrant stocks by nationality and skill level. Second, it examines the institutional prospects for long-term retention and settlement, asking whether systems that attract highly skilled workers also provide credible and predictable pathways toward stability, permanent residence, and, ultimately, citizenship.

To address these questions, the report adopts a four-stage analytical framework that distinguishes between entry authorisation, first-time access to skilled employment, continuation through renewals, and long-term stabilisation.³ This framework allows for a systematic comparison of migration systems that differ widely in size, policy design, and legal traditions. Importantly, the report does not longitudinally follow individual migrants over time; instead, it analyses system-level dynamics, using permit issuances

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and stock indicators to infer how migration regimes structure opportunities and constraints for highly skilled workers.

Methodologically, the report combines OECD stock data on foreign-born, tertiary-educated migrants with nationality-disaggregated administrative data on permits and statuses where available. While differences in national data systems limit full harmonisation, the comparative approach highlights robust structural contrasts between settlement-oriented, gradual, controlled, and constrained models of skilled migration. The report is structured as follows:

Section 2 outlines the conceptual framework and data sources. Section 3 analyses stocks of highly skilled migrants by destination and nationality. Section 4 examines flows and transitions across the four stages. Section 5 concludes with a synthesis of the findings and a discussion of their implications for long-term competitiveness and global talent mobility.

Methodological Framework

This report adopts a comparative, institutionally grounded approach to the analysis of highly skilled migration. Its primary objective is not to estimate individual migration trajectories, but to characterise how destination countries' structure, govern, and stabilise highly skilled mobility over time. To do so, it combines harmonised administrative data, international stock data, and a conceptual framework designed to avoid analytical pitfalls in the study of skilled migration.

Populations of Reference: Definitions

The Migrants

In the analysis of stock data published by the OECD Database on Immigrants (DIOC)⁴, see Annexed Table 2), a migrant is defined as an individual born outside the country of current residence (foreign-born), in a country outside the OECD region (foreign, non-OECD-born individual). This definition seemed the most appropriate for capturing a population of new immigrants, whose characteristics may be similar to those of step-migrants from Gulf states to the five countries of destination. In the processing of flow data, the migrants are the holders of the permits relevant to the population of interest in the report (the highly skilled).

The 'Highly Skilled'

Throughout the report, 'highly skilled' is defined primarily through institutional and educational criteria, rather than through occupational prestige alone. This choice reflects the structure of available data and the logic of migration regimes themselves.

Three operational definitions are used, depending on the source:

1. **Permit-based definitions** (flows, Stages 1–4 of the migration process, as explained in section 2.3 below): Migrants admitted under categories explicitly designed for skilled workers (e.g., H-1B, Blue Card, Skilled Worker Visa, Express Entry Economic Streams, Passport Talent - See Annexed Table 1). These definitions reflect how states classify and manage skills. The full list of categories of permits or programmes used to isolate the highly skilled workers' population in the report is available in Annexed Table 1.

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2. **Education-based definitions** (stocks): Tertiary-educated (levels 5–8 of the UNESCO-International Standard Classification of Education (ISCED)⁵ classification, or BA and above), non-OECD foreign-born adults aged 25–64, as captured in OECD-DIOC and related datasets. This reflects their education level and allows cross-country comparability. However, such a measurement is unrelated to migrants' levels of employment, activity, or type of occupation in receiving countries.
3. **Occupation-based descriptors** (where available): ILO-International Standard Classification of Occupation (ISCO)⁶ major groups of occupation (levels 1–3) are used illustratively, not as a primary filter.

This plural definition is intentional. No single criterion captures the empirical diversity of highly skilled migration across countries. Rather than forcing uniformity, the report preserves definitional transparency.

Data Sources and Types

This report combines two main types of data.

Stock data are drawn from OECD harmonised datasets, especially the DIOC Database on Immigrants in OECD Countries, which compiles and harmonises population census and large-scale survey data produced by national statistical offices. OECD processes and standardises the data for cross-country comparability, to provide information on the stock of immigrants in OECD countries, including characteristics such as country of birth, education level, labour market outcomes, and duration of stay. The unit of observation in such datasets is the individual.

Flow data are based on administrative records from national immigration authorities, e.g. Ministries of Interior, migration agencies, or immigration services, such as the Federal Office for Migration and Refugees BAMF (Germany), the U.S. Citizenship and Immigration Services (USCIS) or the Immigration, Refugees and Citizenship Canada (IRCC), which collect, as well as process and disseminate permit and visa data for operational and legal purposes. The report used original extractions and processing of datasets publicly available from these institutions' websites (See Annexed Table 2). The unit of observation in the flow data analysis is the entry/residency permit, an administrative event.

The Four-Stage Analytical Framework

The core methodological device of the report is the four-stage framework, which distinguishes analytically between different moments of the migration process:

- **Stage 1 – Entry authorisation** (e.g. entry visas, including those linked to a specific employer and job issued abroad⁷)
- **Stage 2 – Start of stay** (e.g. work-based residence permits activated)
- **Stage 3 – Continuation** (extensions, renewals, in-country status changes)
- **Stage 4 – Stabilisation** (permanent residence and settlement)

Each stage and related immigration trends are taken as indicators of the attractiveness of each of the five countries (Stages 1 and 2), and retention characteristics (Stages 3 and 4). Retention involves the evolution of long-term temporariness, or long-term stay in temporary residency statuses (Stage 3), and settlement prospects through access to permanent residency and naturalisation (Stage 4).

This framework is not a pipeline model. Stages do not represent the same individuals moving sequentially through a system. Instead, each stage is a separate administrative universe governed by distinct

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eligibility rules, selection logics, and policy objectives. This distinction is essential to avoid invalid inferences.

For example, Stage 3 volumes cannot be interpreted as ‘retention rates’, and Stage 4 volumes cannot be interpreted as the proportion of Stage 1 entrants who settle. The framework is designed to reveal how states manage time and conditionality, not to infer individual trajectories.

Avoiding Cohort Fallacies

A central methodological choice in this report is the rejection of pseudo-retention rates constructed from unrelated time series (e.g., dividing permanent residence flows by earlier visa issuances). Without longitudinal microdata linking individuals across statuses and years, such ratios are not only imprecise but conceptually invalid.

Instead, the report uses:

- **Level comparisons** (e.g. size of highly skilled stocks, volume of highly skilled permits issued per year)
- **Indexed trends** (base = 100 at first relevant year)
- **Structural comparisons** (e.g., presence or absence of stabilisation pathways)
- **Cross-stage relationships** (e.g., whether Stage 3 growth is accompanied by Stage 4 growth)

This approach emphasises system behaviour rather than individual behaviour.

Stocks vs. Flows

The report systematically distinguishes between **stocks** and **flows**:

- **Stocks** (from OECD-DIOC and related sources) capture the demographic imprint of past retention.
- **Flows** (from national administrative datasets) capture how systems process and govern mobility in real time.

Comparative Logic

The five destination countries (Canada, the United States, Germany, the United Kingdom, and France) are analysed not as isolated cases but as attraction and retention regimes. The report identifies patterns in how each system structures attractiveness, temporariness, and access to permanence.

Analytical Limitations of the Data and Methodological Approach

The analysis of **stock** data is based on censuses and surveys and therefore refers to individuals at a given moment in time. However, the analysis of **flow** data does not observe individual life courses. Permits measure administrative events: these may involve multiple permits per person over time, rather than unique individuals, making it impossible to directly track personal trajectories, cumulative duration of stay, or transitions across statuses. This is why we have specified that time series related to each of the four stages of the migration process (authorisation to enter the destination country; first entry on a temporary basis; renewals and extension of temporary permits; access to permanent residency) would be treated separately. The report does not estimate causal effects; its contribution is structural and institutional: it shows how different migration systems produce different forms of temporariness, stability, and long-term inclusion.

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Stock Data: Highly Skilled Migrants in the Five Destination Countries

Purpose and Scope of the Stock Analysis

This section examines stocks of highly skilled migrants in Canada, France, Germany, the United Kingdom, and the United States. Stock data provide a snapshot of the demographic imprint of past migration and retention outcomes, rather than a direct measure of current policy attractiveness or recent inflows. As such, they capture the cumulative effects of earlier admission policies, labour market integration, on-ward mobility, and settlement trajectories.

As indicated in the methodology section, the analysis focuses on non-OECD foreign-born highly skilled individuals, defined by educational attainment at ISCED levels 5–8, in line with OECD and UNESCO standards. Such a definition does not reflect current occupation or permit status.

Stocks of Migrants and Highly Skilled Migrants

As indicated in Table 3.1, the US hosts a record high number of foreign migrants. Across the five destination countries, migrants represent significant but highly variable shares of the total population. Canada stands out with the largest relative migrant stock, while France, Germany, the UK, and the US display more moderate proportions.

Within these migrant populations, the share of highly skilled individuals differs markedly across countries. Highly skilled migrants constitute a particularly large proportion of the foreign-born in Canada, the US, and the UK, reflecting long-standing selection mechanisms favouring tertiary education, professional experience, and language skills. By contrast, France and Germany exhibit lower relative shares of highly educated migrants, partly due to historically larger humanitarian and family-based migration channels.

Table 3.1. Migrants' and Highly Skilled Migrants' Populations, by Country of Destination (2015-16 and 2020-21)

	Total population (aged 15-64)	Non-OECD foreign-born population (aged 15-64)	% of non-OECD foreign-born in total population (aged 15-64)	Tertiary educated (aged 25-64)	% tertiary educated		
					2015-16	2020-21	among women
Canada	25,104,410	6,515,210	26%	3,184,455	68%	67%	69%
France	41,876,070	5,601,324	13%	1,332,656	31%	35%	36%
Germany	53,299,643	7,483,000	14%	N.A.	24%	N.A.	N.A.
United Kingdom	42,904,270	4,776,000	11%	N.A.	49%	N.A.	N.A.
United States	215,541,683	25,630,151	12%	10,297,348	46%	49%	52%

Sources: OECD-DIOC database, 2015-16 and 2020-21; International Migration Database; Historical population data.

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Across all five countries, women among the migrant population tend to display slightly higher educational attainment than men, a pattern that is consistent across destinations and mirrors trends observed in OECD-wide data.⁸

Labour Market Attachment of Highly Skilled Migrants

Stock data in Table 3.2 also allow an assessment of labour market attachment, although with important limitations. Employment rates among highly skilled migrants are generally high by international standards, and higher than employment rates of total immigrant populations (around 71% on average in OECD countries),⁹ except in France. However, employment rates of the specific subset of migrants observed here (non-OECD, foreign-born, migrants aged 25-64) remain below those of total populations (native-born and migrants) with similar educational levels (86% in OECD region).¹⁰ Across the five countries, employment rates for highly skilled migrants thus cluster around the OECD average, with variation reflecting national labour market structures, credential recognition systems, and sectoral demand. Canada and the United States display relatively strong labour market absorption of highly educated migrants, while outcomes are more mixed in France.

Crucially, stock data also reveal that employment in highly skilled occupations does not perfectly align with educational attainment. A non-negligible share of highly educated migrants is employed in occupations below their qualification level, possibly suggesting:

- skills mismatch and overqualification
- difficulties in credential recognition
- language barriers
- segmentation of labour markets

These patterns are important for interpreting later findings on temporariness and settlement: long duration of stay does not necessarily imply full labour market integration.

Table 3.2. Employment Rates of Tertiary-Educated Migrants and Share of Tertiary-Educated Migrants Employed in High-Skill Occupations, by Country of Destination (2015-16 and 2020-21)

	Employment rate of tertiary educated (2020-21)	Share employed in skilled occupations (ISCO cat. 1-3) (2015-2016)
Canada	77%	62%
France	70%	66%
Germany	N.A.	65%
United Kingdom	N.A.	63%
United States	81%	64%

Sources: OECD-DIOC 2020-21 and 2015-16 databases.

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Sectoral Distribution of Highly Skilled Migrants

Highly skilled migrants in all five destination countries are concentrated in a relatively narrow set of economic sectors. Across OECD countries,¹¹ the most prominent sectors include:

- **Health and social care**
- **Education and research**
- **Professional, scientific, and technical services**
- **Finance and business services**
- **Information technology and digital industries**

In particular, OECD publications show that foreign-born health professionals, especially doctors and nurses, form a substantial and growing share of health systems in OECD countries, especially in the UK, where the share of foreign-born doctors exceeded 40% of all doctors in 2024, and increasingly in Germany.¹² These economic sectors are important for origin countries' economies and societies, and the emigration of specialised professionals creates a 'brain drain' damaging to origin countries' development process. These sectors also largely overlap with those prioritised by destination countries' high-skill migration policies and, importantly, with sectors targeted by Gulf states' diversification strategies. These overlaps underscore the relevance of OECD destinations as potential alternatives—or complements—to Gulf labour markets for highly skilled professionals and, more generally, the worldwide competition for talents.

Focus on Five Selected Nationalities

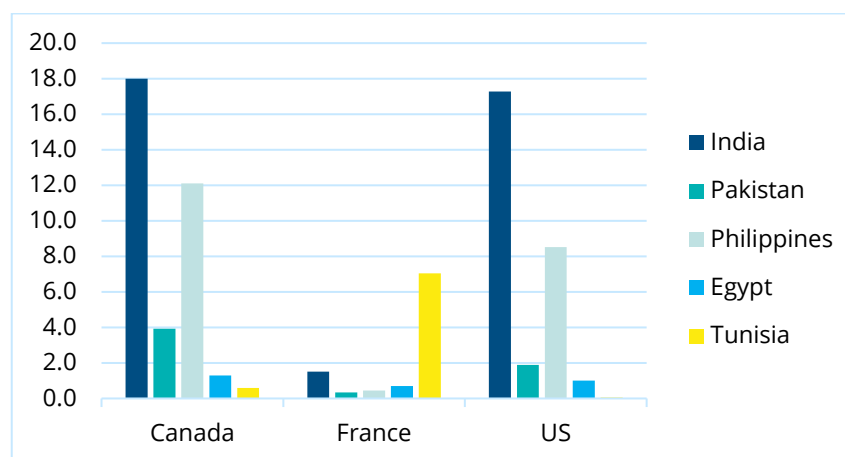
To better capture heterogeneity within the highly skilled migrant population, the section focuses on five non-OECD nationalities that are of particular relevance to Gulf-based migration dynamics: Indians, Pakistanis, Filipinos, Egyptians, and Tunisians. These nationalities were focused upon in the first phase of the GLMM-KAS project on highly skilled migration to the Gulf states. The first four nationalities were known to make up a significant share of the highly skilled populations in Gulf states.¹³ Tunisian nationals, though not many compared to the other nationalities, were chosen as an example of a largely francophone population increasingly diversifying destinations of its highly skilled components from Europe to the Gulf (and North America).

Across the five destination countries, the five nationalities display markedly different settlement patterns, reflecting both country-specific admission systems and nationality-specific migration histories. Some nationalities are heavily concentrated in traditional settlement countries such as Canada and the United States, while others are more evenly distributed across European destinations.

The *International Migration Outlook 2025* confirms that India is the largest source of migrants to OECD countries overall, including through skilled and permanent channels. This is due to the large size of the Indian population as a whole, but India also has the highest number of emigrants with a postsecondary degree residing in OECD countries, further supporting the prominence of Indian origin in skilled migration.¹⁴ Figure 3.1 indicates that Indians, as well as Filipinos to a slightly lesser extent, make up the largest share of highly skilled migrant populations in Canada and the US.¹⁵ In France, where the other four nationalities each make up 1% or less of the total immigrant population (Annexed Table 3), the 94,000 Tunisians holding a tertiary education make up 7% of the highly educated in the country. However, Tunisians are largely outnumbered by Asian nationalities in Canada and the US.¹⁶

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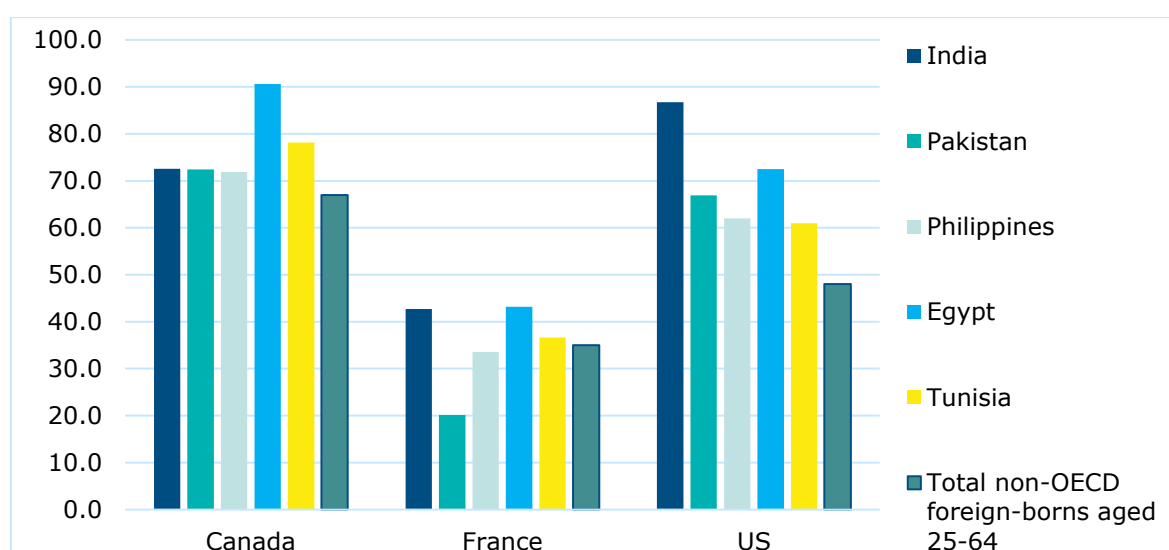
Figure 3.1. Share of Immigrants from India, Pakistan, the Philippines, Egypt and Tunisia in Total Highly Skilled Migrant Populations in Selected Destination Countries (2020-21)



Source: Authors' elaboration, using DIOC 2020-21 database

Figure 3.2 also underlines the role of receiving countries' policies and past migration dynamics in defining migration trends and migrants' characteristics. The share of people with tertiary education (aged 25-64) varies significantly by country of destination, as indicated in Figure 3.1, but also by nationality (Figure 3.2). While the five nationalities (except Pakistanis in France) consistently display higher shares of highly skilled among them than among the total migrant populations (in black), their scores align with each country's general skill profiles among migrants: consistently high in Canada, consistently lower in France, and high but displaying diversity among migrants' nationalities in the US.

Figure 3.2. Share of Tertiary-Educated Among Immigrants (Aged 25-64), by Country of Origin and Destination (2020-21)



Source: Authors' elaboration, using DIOC 2020-21 database

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Data from OECD's Health Workforce Migration dataset further highlight the extent of the health sector's dependence on foreign doctors and nurses in the five countries, and especially, immigrants from India and the Philippines (Table 3.3).

India has become a major supplier of highly skilled medical personnel. Indian immigrants make up one third of the foreign, non-OECD born doctors in the UK and 26 and 35% of nurses, respectively in Canada and Germany in 2022. Pakistan also supplied 15% and Egypt 9% of the immigrant doctors in the UK. Nurses from the Philippines compose between a third (in Germany) and 60% (in the UK) of migrant nurses.

Table 3.3. Number of non-OECD, Foreign-Born Doctors and Share of Selected Nationalities among Them (Selected Destination Countries, 2022)

	India		Pakistan		Philippines		Egypt		Tunisia		Total non-OECD, foreign-born	
	Doctors	Nurses	Doctors	Nurses	Doctors	Nurses	Doctors	Nurses	Doctors	Nurses	Doctors	Nurses
Canada	12.5	25.7	6.7	1	1.4	45.7	7.1	0.1	0.3	0.3	17,192	30,492
France	N.A.	N.A.	0	N.A.	N.A.	N.A.	1	N.A.	8	N.A.	21,100	85,000
Germany	2.6	34.7	0.3	0.9	0.1	34	4.3	0	2.1	0	36,169	130,098
UK	33.1	8.5	14.7	N.A.	0.4	59.6	8.9	N.A.	0	N.A.	59,089	159,115

Source: OECD Health Workforce Migration dataset

Interpretation of Stock Data: Key Insights and Implications

The stock data presented in this section provided a structural backdrop against which current migration dynamics must be interpreted. They reflect the cumulative outcomes of past admission regimes, labour market integration processes, and settlement opportunities, rather than current policy attractiveness or recent inflows. As such, they capture inherited patterns that may not be reproduced under today's policy conditions.

Large stocks of highly skilled migrants in Canada, the United States, and the United Kingdom primarily reflect long-standing selection mechanisms favouring tertiary education and settlement, combined with sizeable labour markets. In contrast, the more moderate stocks observed in France and Germany are the outcome of historically more restrictive or segmented skilled migration channels and a greater reliance on humanitarian and family-based migration. Stock size should therefore not be read as a direct indicator of current openness or future retention capacity.

Across all five destination countries, highly skilled migrants display relatively high employment rates by international standards, and clearly higher rates than total migrant populations. However, their employment rates remain below those of the total population with comparable educational attainment, pointing to persistent integration frictions. Moreover, a significant share of tertiary-educated migrants is employed in occupations below their qualification level. This mismatch highlights the role of credential recognition barriers, language constraints, and labour market segmentation, and cautions against equating long duration of stay with full economic integration.

Sectoral concentration patterns further illustrate the interaction between labour demand and policy design. Highly skilled migrants are concentrated in a narrow set of sectors—notably health and social care, education and research, professional and technical services, finance, and IT. The health sector is particularly emblematic, with foreign-born doctors and nurses forming substantial shares of the workforce in all five countries, especially in the UK and increasingly in Germany. These sectors largely coincide with

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national skill-shortage priorities and with the strategic sectors targeted by Gulf states, underscoring the relevance of OECD destinations as competing or sequential labour markets for highly skilled migrants.

Nationality-specific profiles reflect the cumulative effects of migration regimes and historical ties, rather than differences in skills alone. Indians and, to a lesser extent, Filipinos form large shares of highly skilled migrant stocks across multiple destinations, reflecting both scale effects and strong positioning in global labour markets, particularly in STEM and health. By contrast, the destination-specific concentration of Tunisians, Egyptians, and Pakistanis illustrates how institutional filters, language, and historical linkages shape migrant composition.

Finally, stock data capture past retention outcomes, not future settlement prospects. The patterns observed today were shaped under earlier policy regimes, while subsequent sections show that access to permanent residence and naturalisation has become more uncertain in several countries. This reinforces the need to complement stock analysis with flow data and staged indicators, which better capture how contemporary systems govern highly skilled migration in real time.

Comparative Trends in Highly Skilled Migration: Stages, Transitions and Retention

This section analyses recent trends in highly skilled migration to Canada, France, Germany, the United Kingdom, and the United States, using administrative flow data organised along a four-stage analytical framework. Unlike stock data, which reflect cumulative past outcomes, flow data allow an examination of how migration systems process mobility in real time, revealing patterns of attraction, temporariness, and settlement.

Each stage corresponds to a distinct administrative universe and policy logic. Trends are therefore analysed stage by stage, without assuming linear or automatic progression from entry to settlement.

Stages 1 and 2: Attractiveness of the Five Countries to Highly Skilled Workers

Stages 1 and 2 capture the initial moments of migration: the granting of entry authorisations (where observable) and the effective start of stay through the issuance of temporary permits for highly skilled employment. Together, these stages provide the closest available indicators of a country's attractiveness to highly skilled migrants.

Due to data limitations and incomplete harmonisation of entry-visa statistics across countries, the analysis focuses primarily on Stage 2 inflows, measured through the number of first-time temporary permits delivered to highly skilled workers.

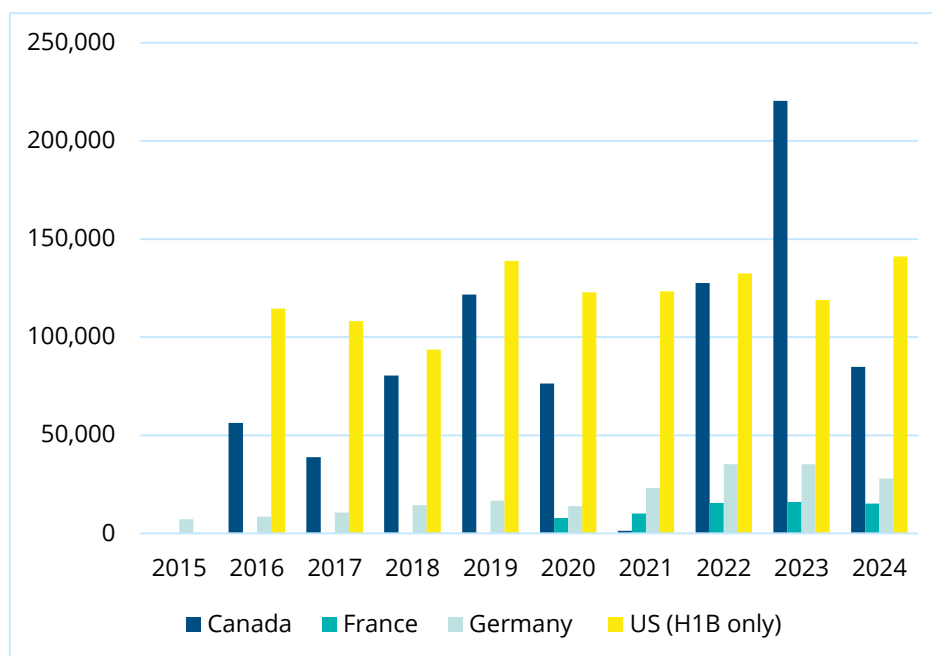
Real-Size Inflows of Highly Skilled Migrants

In absolute terms, Canada¹⁷ and the United States dominate highly skilled first-time inflows among the five countries (Figure 4.1). Their scale reflects both labour market size and the breadth of their skilled migration channels. Germany follows at some distance, while France receives more moderate volumes. In France, Stage 2 entries of highly skilled workers have increased only gradually, reflecting a selective system centred on employer sponsorship and relatively limited direct recruitment from abroad.¹⁸ Phase 2 indicators (start of stay) are not available for the United Kingdom.¹⁹

These differences in scale should not be interpreted as differences in policy openness alone. They also reflect population size, economic structure, and long-standing migration networks.

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Figure 4.1. First-Time Inflows of Highly Skilled Migrants, Real Numbers, by Country of Destination

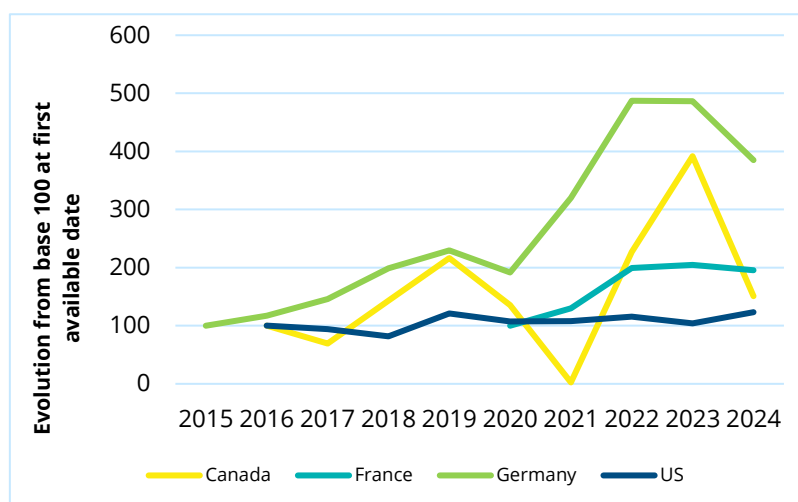


Sources: See Annexed Table 2

Comparative Evolution Since 2015 (Indexed Trends)

To facilitate comparison across countries with very different absolute volumes, inflows are also analysed using indexed series (base = 100 in 2015, or first year of availability of data). This approach highlights relative change over time, rather than levels.

Figure 4.2. Evolution of Highly Skilled Inflows by Destination Country since 2015, Indexed (2015 = 100)



Sources: See Annexed Table 2

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Stage 2 trends (Figure 4.2) reveal three distinct entry models among the main destination countries. Canada shows the strongest and most dynamic growth in first-time temporary permits, driven primarily by the rapid expansion of Post-Graduation Work Permits (see Annexed Tables 1 and 5) and supported by employer-driven streams under the International Mobility Program (IMP) and Temporary Foreign Worker Program (TFWP) in response to labour shortages. In 2023, Canada indeed issued an exceptionally high number of first-entry work permits.²⁰

Germany displays a steadier and more gradual increase, reflecting a structural transition toward a more open skilled migration regime centred on direct recruitment through the EU Blue Card and related permits rather than post-study pathways alone.²¹

The United States, while maintaining high absolute volumes of first-time entries dominated by the H-1B programme and sustained employer demand, exhibits flatter and more volatile trends, constrained by numerical caps, lottery mechanisms, and administrative bottlenecks.²²

The decline in first-time entries observed in 2024 reflects a normalisation after the exceptional post-COVID expansion of 2021–2023, rather than a structural fall in demand for highly skilled migrants. In several destination countries, notably Canada and the UK, governments introduced policy tightening and caps to relieve pressure on housing, services, and administrative systems, while the clearance of pandemic backlogs mechanically reduced inflow volumes.²³ In Canada, restrictions on international students directly reduced downstream post-study entries (PGWP). More generally, the Canadian authorities announced a plan to decrease the number of temporary residents to 5% of the total population over the next three years, including temporary foreign workers and international students, and changes affecting work permit streams.²⁴ These policy trends were reinforced by macroeconomic uncertainty and slower hiring in parts of 2023–2024. Overall, the 2024 decline reflects policy recalibration and system capacity limits, not diminished attractiveness of OECD destinations.

Taken together, these patterns point to an expansionary and flexible Canadian model, a reform-driven German model, and a capacity-constrained US. These trends underline that attractiveness is not static: it evolves with policy choices, administrative capacity, and global competition for talent.

Stage 3: Increasing Temporariness?

Stage 3 focuses on the continuation of stay, captured through renewals and conversions of temporary permits. High volumes of renewals may indicate either successful labour market integration or, conversely, extended temporariness when access to long-term residence remains constrained.

Renewals of Temporary Permits

Across the main destination countries, Stage 3 trends show a general increase in renewals since the mid-2010s, with particularly strong growth after 2021 and 2022 in Canada (Figures 4.3 and 4.4). Increasing renewals show that institutions depend on temporary arrangements, not just ongoing labour needs. Both continuous labour demand and the use of temporary permits for screening before allowing settlement play important roles.²⁵ However, the scale and trajectory of renewals vary markedly by country.

In Canada,²⁶ Stage 3 growth reflects a system explicitly designed around temporary-to-permanent transitions. Renewals of work permits (including bridging permits following PGWP or employer-specific permits) increased alongside strong labour demand and predictable settlement pathways through Express

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Entry, as will be shown in the next section. As a result, high renewal volumes in Canada are not primarily indicative of blocked settlement, but rather of managed progression within a multi-stage system.²⁷ The dip in renewals observed in 2022 reflects a transitional effect, as accelerated transitions from temporary to permanent residence, combined with pandemic-era public policies and backlog clearance, reduced and rescheduled renewal events rather than signalling a decline in labour demand or system performance.²⁸

Concerning France, Stage 3 trends show moderate but steady renewals, indicating continued labour-market attachment but a progression model that remains incremental rather than expansionary.

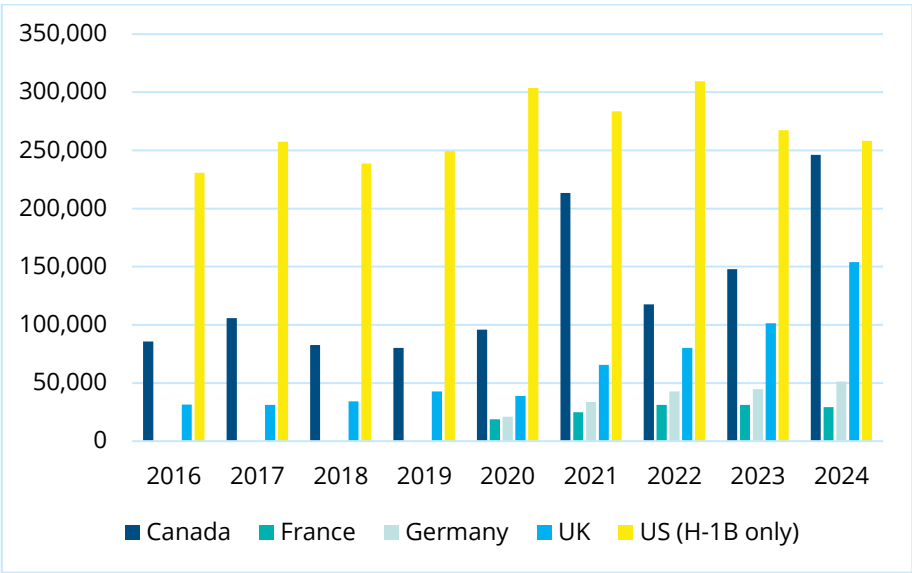
In Germany, Stage 3 trends also show rising renewals, particularly among EU Blue Card holders and other skilled workers. This reflects a gradual integration model, where continued temporary residence precedes permanent settlement after several years of employment: “[r]esidence permits for skilled workers are typically renewed several times before permanent settlement is granted, as continued employment remains a prerequisite”.²⁹ While access to settlement has improved following reforms to the Skilled Workers Immigration Act, the data suggest that temporary continuity remains structurally embedded, even after reforms, resulting in longer periods spent in intermediate statuses.

In contrast, the United States displays a different Stage 3 logic, where renewals and continued temporary residence often reflect structural constraints on transition to permanent residence. As of 2024, employer demand for H-1B workers remained high, but labour migration pathways have been tightly capped and associated green-card backlogs stretch for many years, with some highly skilled workers facing wait times of nearly a decade before receiving permanent status under employment categories. U.S. work visa and green-card systems are characterised by low annual caps and extensive administrative backlogs, making transitions from temporary to permanent residence uncertain even for long-term employed workers. These features point to a structural decoupling between employer demand and accessible settlement outcomes, rather than a deliberate sequencing strategy moving temporary holders toward a defined permanent track.³⁰

In the United Kingdom, Stage 3 dynamics are also shaped by a policy environment that has shifted markedly toward tighter controls on work visas and related settlement conditions. The government’s Restoring Control White Paper (May 2025) outlines stronger restrictions on skilled migration routes and higher eligibility requirements,³¹ while transitional arrangements allow existing skilled workers to extend visas under evolving rules, indicating a constrained renewal landscape rather than a clearly defined temporary-to-permanent progression. Analysis of the White Paper reforms further underscores that existing visa holders may renew in the short term, but future entrants face more restrictive criteria, reflecting a broader policy shift toward selectivity and control rather than straightforward settlement pathways.

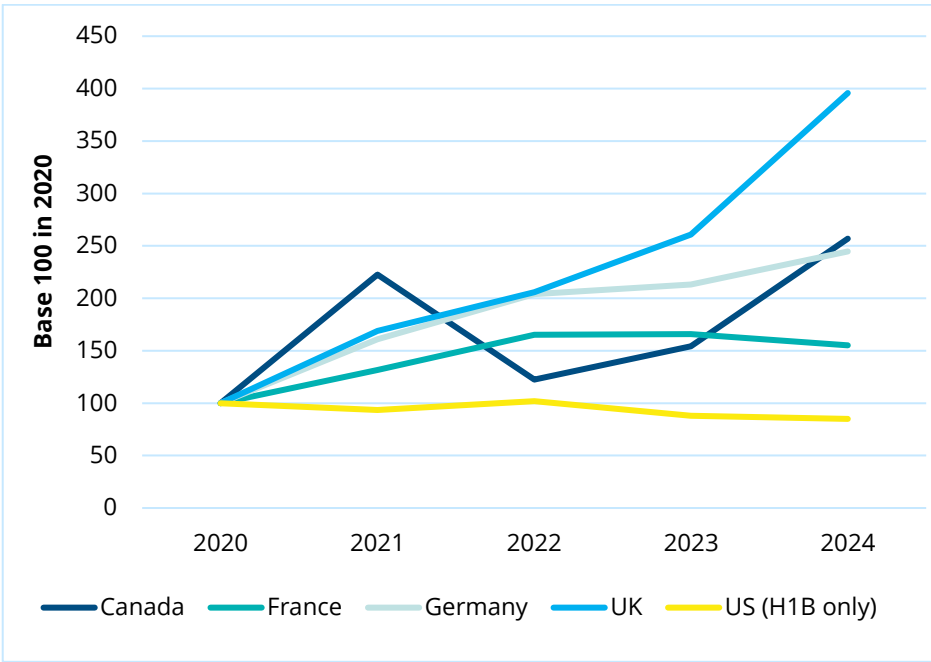
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Figure 4.3. Renewals and Conversions of Temporary Skilled Permits, by Country (2016-2024)



Sources: See Annexed Table 2

Figure 4.4. Evolution of Highly Skilled Permits Renewals and Extensions, by Destination Country since 2020, Indexed (2020 = 100)



Sources: See Annexed Table 2

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Broader Implications: Long-Term Temporariness as a Structural Outcome

Taken together, Stage 3 patterns indicate that temporariness has become a durable feature of highly skilled migration systems. However, temporariness does not have a uniform meaning. In settlement-oriented systems (notably Canada), it functions as a managed phase leading toward permanence. In more constrained systems (notably the United States), it increasingly represents long-term uncertainty, with potential implications for retention, mobility decisions, and onward migration.

These findings underline the importance of analysing renewals in conjunction with Stage 4 outcomes. High renewal rates alone cannot be interpreted as either success or failure; their significance depends on whether systems ultimately provide credible and accessible pathways to long-term residence.

Stage 4: Retention in Comparative Perspective: Permanent Residence and Naturalisations

Stage 4 captures the final stabilisation of stay, measured through access to permanent residence and, over time, naturalisation. In contrast to Stages 1, 2 (attraction and entry) and 3 (continuation through renewals), Stage 4 provides the clearest indication of long-term retention capacity. Comparing Stage 4 outcomes with earlier stages allows an assessment of whether systems that attract and retain highly skilled migrants in the short term ultimately convert this presence into durable settlement.

Permanent Residence Outcomes

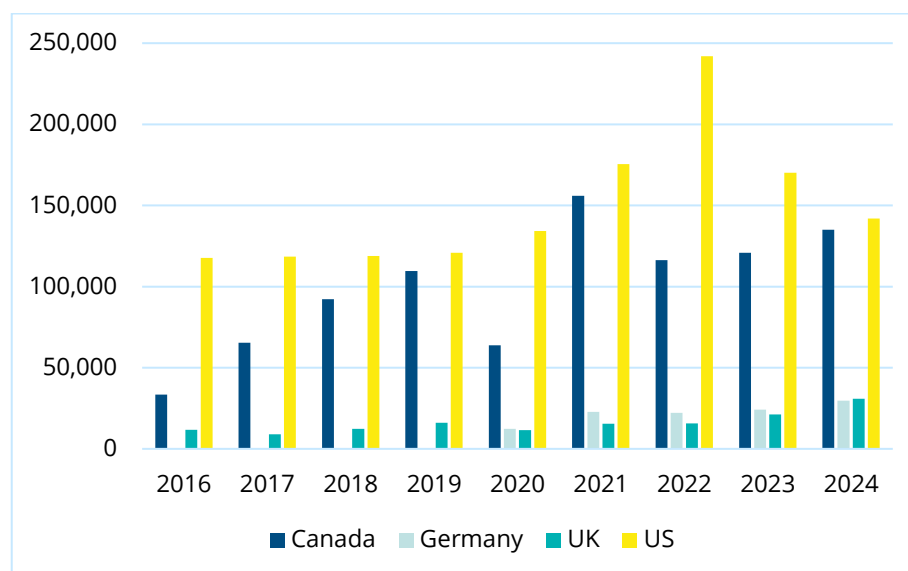
Stage 4 raw data (Figure 4.5) show that Canada grants substantially more permanent residence permits through employment-based and transition pathways than European destination countries, reflecting its settlement-oriented model. The United States has granted higher absolute numbers of permanent residence permits than individual European countries since 2021; however, these outcomes remain weakly aligned with earlier entry and renewal stages, reflecting a capped and backlog-driven settlement system rather than a managed transition from temporary skilled work to permanence.

European countries such as Germany and the United Kingdom grant permanent residence to comparatively smaller numbers of highly skilled migrants each year, consistent with more gradual and conditional settlement frameworks. No long-term or permanent residency data disaggregated by skill level were available for France.

More generally, long-term settlement issuances grew more slowly and unevenly than earlier stages, confirming that high inflows and renewals do not automatically translate into permanent residence and reflecting the cumulative effects of policy design and institutional constraints.

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Figure 4.5. Issuances of Permanent Highly Skilled Permits, by Country of Destination (2016-2024)



Sources: See Annexed Table 2

Comparative Evolution Since 2020 (Indexed Trends)

Across destination countries, Stage 4 indicators show a generally upward but uneven trend, with permanent residence and naturalisation increasing over time but at markedly different speeds. While Canada and, to a lesser extent, Germany, displays sustained growth in long-term settlement outcomes, the United Kingdom and the United States exhibit flatter and more volatile trajectories, reflecting tighter or more constrained access to permanence (Figure 4.6).

In Canada, Stage 4 outcomes strongly confirm conclusions drawn from Stages 2 and 3. High levels of permanent residence admissions among former temporary workers indicate that temporariness functions as a managed pathway rather than a bottleneck. OECD analyses consistently identify Canada as distinctive for the scale and predictability of its temporary-to-permanent transitions, notably through Express Entry and provincial nomination programmes. This confirms that elevated renewals at Stage 3 reflect sequenced progression, not blocked settlement. The dip in Stage 4 issuances observed in 2022 reflects a post-pandemic re-sequencing effect, following the front-loaded permanent residence admissions of 2021 under exceptional transition measures, rather than a weakening of settlement capacity.³²

In Germany, Stage 4 patterns broadly align with the Stage 3 interpretation of a gradual integration model. Access to permanent settlement has increased—particularly for EU Blue Card holders—but typically occurs after extended periods of temporary residence. OECD and national policy evaluations emphasise that settlement remains conditional on sustained employment, language acquisition, and residence duration. Stage 4 thus confirms that Germany's system prioritises progressive stabilisation rather than rapid settlement, even as overall retention capacity improves following recent reforms.

The United Kingdom presents a more ambivalent Stage 4 picture. While Stages 1–3 show strong attraction and continued stay through skilled worker renewals, Stage 4 outcomes increasingly reflect a tightening settlement regime. Recent policy documents emphasise higher thresholds and more restrictive conditions for settlement and citizenship, signalling a shift away from implicit settlement towards a more

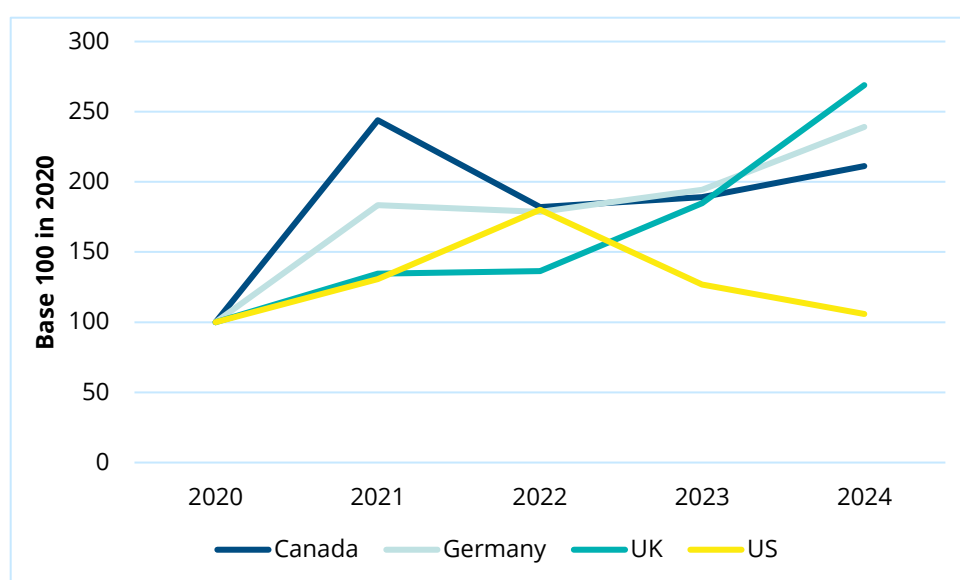
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conditional and selective model. As a result, renewals observed at Stage 3 do not systematically translate into long-term residence, confirming that temporariness in the UK has become less clearly sequenced toward permanence.³³

In contrast, the United States shows the clearest disjunction between early stages and Stage 4. High first entries (Stage 2) and substantial renewals (Stage 3) are not matched by proportional access to permanent residence. Policy analyses document that numerical caps and long employment-based green-card backlogs result in prolonged stays in temporary status, often lasting many years despite stable employment. Stage 4 therefore confirms that earlier-stage retention reflects structural constraints on settlement, rather than a managed pathway.

Overall, Stage 4 outcomes confirm that differences observed in Stages 1–3 reflect structurally distinct national models of skilled migration, with important implications for long-term retention and international competition for talent.

Figure 4.6. Permanent Residences Granted to Highly Skilled Migrants, Indexed Trends (2020-2024)



Sources: See Annexed Table 2

Naturalisation Trends

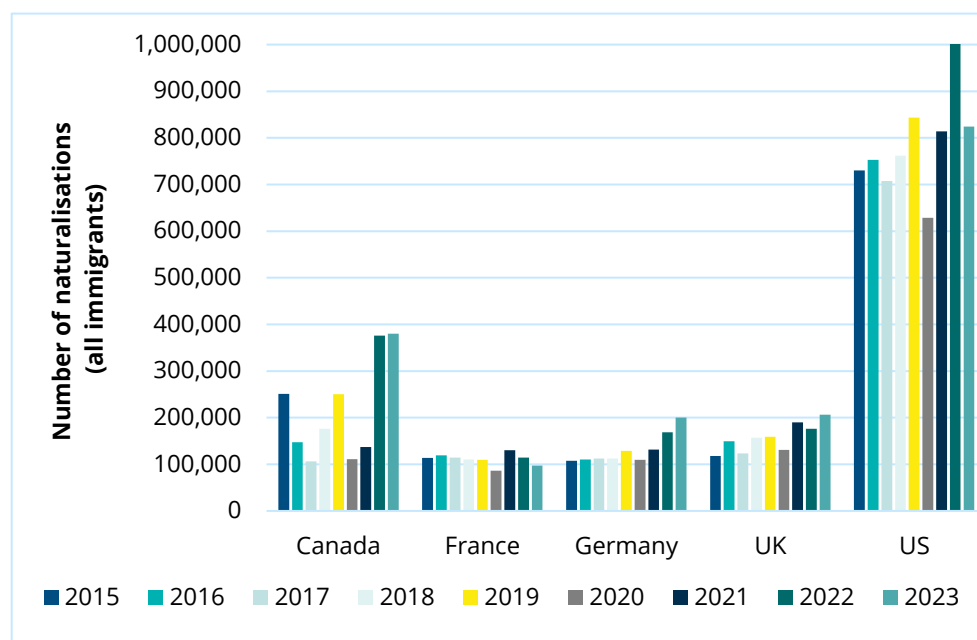
Naturalisation provides a longer-term perspective on retention. Across all five countries, naturalisation trends reflect conditions and inflows from earlier periods, rather than recent policy changes.

No data was available on naturalisations according to previous residency status, skill, profession, or education level. Figure 4.7 thus displays the numbers of acquisitions of citizenship by all profiles of immigrants in the five destination countries. Taking into account these reservations, the data indicate:

- stable or slowly increasing naturalisations in Canada and Germany
- more limited growth in France and the UK
- a noticeable slowdown in the United States in 2023, which nonetheless grants the largest numbers of naturalisations

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Figure 4.7. Naturalisations of Foreign-Born Population, by Country of Residence (Total Population, 2015-2023)



Source: OECD, International Migration Database

These patterns suggest that long-term integration outcomes may diverge from current inflow dynamics, reinforcing the need to analyse stocks and flows jointly.

Synthetic Overview: Contrasting National Models but Tighter Management of In-flows Everywhere

As of 2024, synthetic comparison across the four stages highlights structurally distinct national models of highly skilled migration, reflecting different relationships between attraction (Stages 1–2), continuation (Stage 3), and stabilisation (Stage 4).

Canada operates a settlement-oriented and explicitly sequenced model, combining strong attraction at entry with high continuity and predictable transitions to permanent residence. Temporary permits function primarily as managed stepping stones toward settlement. Its highly skilled migration system is explicitly designed as a settlement system rather than as a temporary labour regime. Canada's system is designed not only to fill vacancies but also to shape the future population, emphasizing its settlement orientation rather than functioning solely as a temporary labour regime.³⁴

Germany represents a gradual settlement model, characterised by rising first entries and sustained renewals, but with extended intermediate phases before stabilisation. Settlement prospects are improving but remain conditional on duration and employment continuity.

France displays a controlled and niche-oriented model, centred on employer-driven entry and moderate renewals. Highly skilled migration remains selective, with limited scale and less systematic progression toward long-term residence.

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The United Kingdom combines high openness at entry with constrained stabilisation, resulting in strong inflows and renewals but uncertain and tightening settlement prospects. Temporariness increasingly reflects policy design rather than transitional sequencing.

The United States follows a large-scale but structurally constrained model, with high first entries and substantial renewals for skilled workers, yet a weak alignment between earlier stages and permanent residence, due to caps and backlogs. High absolute settlement numbers coexist with prolonged temporariness.

Looking ahead, several trends are likely to shape highly skilled migration to the five countries:

- continued global competition for talent, particularly in health, IT, and scientific sectors
- increasing use of temporary permits as screening devices, followed by selective settlement
- greater differentiation between countries offering clear settlement horizons and those relying on prolonged temporariness

Policy uncertainty, processing capacity, and geopolitical developments will play a critical role in shaping future outcomes. Importantly, past stock patterns may not be replicated if current barriers to settlement persist. In the US, especially, major developments of the H-1B policy reforms since 2025 should affect the selection, vetting, and administrative mechanisms applied to highly skilled immigrants.³⁵ This synthetic table summarises the dominant features of each national model, highlighting structural differences rather than policy intent.

Table 4.1. Highly Skilled Migration: Synthetic Country Contexts

Country	Entry Gate (Stage 1)	New, Temporary Inflows (Stage 2)	Temporariness Signals (Stage 3)	Settlement Prospects (Stage 4)	Structural Profile (c. 2024)	Short-Term Prospects (2025–2027)
Canada	Managed, points-based and employer-linked	Very high, expansionary (PGWP-led)	High renewals, transitional	Strong and predictable PR for workers	Settlement-oriented, sequenced	Selective moderation, more tightly policy-managed
France	Selective, employer-centred, administratively bounded	Moderate, niche-oriented	Moderate renewals, incremental	Limited but accessible PR	Controlled, niche employer model	Stable, low growth under tighter controls
Germany	Expanding access (Blue Card reforms)	Steady growth, recruitment-driven (EU Blue Card, skilled permits)	High and sustained renewals	Improving, gradual settlement	Gradual settlement with long temporariness	Selective growth, reform- and wage-weighted
United Kingdom	Highly elastic, policy-sensitive	High but volatile	High renewals, uncertain sequencing	Constrained and tightening	Open at entry, constrained settlement	Elevated volatility, policy-driven downside risk
United States	Large-scale but capped	Very high (H-1B-dominated)	High renewals, prolonged stays	High volumes, weak conversion	Scale with structural constraints	Plateauing, policy-filtered, wage-weighted, and backlog-constrained

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Conclusion

This report set out to examine how five major OECD destination countries—Canada, the United States, Germany, the United Kingdom and France—structure, govern, and stabilise highly skilled migration over time, using a four-stage analytical framework and a combination of stock and flow data. Rather than tracing individual trajectories, the analysis focused on system behaviour, revealing how different institutional designs produce distinct forms of attractiveness, temporariness, and long-term inclusion.

Summary of Main Findings

Stock data confirm that Canada, the United States, and the United Kingdom host the largest stocks of highly educated migrants, reflecting long-standing selection mechanisms favouring tertiary education and professional experience. Germany and France host smaller relative stocks of highly skilled migrants, though with notable recent growth in Germany. Across all destinations, highly skilled migrants display comparatively strong labour market attachment, but also persistent risks of skills mismatch and over-qualification, reinforcing Atique's finding³⁶ that settlement does not automatically imply full economic integration.

Nationality-specific stock patterns further demonstrate the long-term imprint of past migration regimes. Indian nationals form the backbone of highly skilled migrant stocks in North America, Germany, and the UK, while Filipino nationals are strongly represented in health-related occupations. Pakistani, Egyptian, and Tunisian nationals display more fragmented and destination-specific profiles, shaped by language, sectoral demand, and administrative filters. These patterns reflect cumulative outcomes of earlier policy choices rather than current openness alone.

Flow analysis across the four stages reveals pronounced structural differences among destination countries. Consistent with Asma Atique's legal analysis, Canada stands out as a settlement-oriented and explicitly sequenced system, where high inflows and renewals are matched by strong and predictable access to permanent residence.³⁷ Germany has undergone a significant transition toward a more open skilled-migration regime, centred on the EU Blue Card and direct recruitment, but continues to rely on extended periods of temporariness before stabilisation. France remains a controlled and niche system for highly skilled migration. The United Kingdom combines high openness at entry with growing instability and tightening settlement rules, while the United States operates at very large scale but remains structurally constrained, with prolonged temporariness driven by caps and backlogs.

The report confirms that temporariness has become a durable feature of highly skilled migration, but with very different meanings across systems. In some countries it functions as managed progression; in others it represents long-term uncertainty.

Why These Results Matter for Highly Skilled Migrants from the Gulf

These findings are particularly relevant for highly skilled migrants currently based in Gulf countries, where migration regimes are typically employer-sponsored, time-limited, and weakly connected to settlement. As highlighted in the GLMM-KAS project 'Highly Skilled Migration to the Gulf States: How do GCC Countries Fare in the Global Competition for Talent?', OECD destinations are often perceived as offering a qualitative shift away from Gulf-style temporariness. This report shows that such expectations must be carefully differentiated.

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Canada remains the clearest alternative for migrants seeking predictable long-term horizons. Germany increasingly offers opportunities, but often through prolonged intermediate statuses. By contrast, the United Kingdom and the United States increasingly resemble forms of reconfigured temporariness, where openness at entry coexists with constrained or uncertain stabilisation. For migrants moving from the Gulf, this implies that migration may not represent a simple transition from temporary to permanent regimes, but rather a change in the legal architecture of temporariness, echoing Asma Atique's argument.

Short-Term Prospects (2025–2027)

Looking ahead, short-term prospects suggest moderation rather than reversal of these patterns. Canada has signalled tighter management of temporary inflows while maintaining strong settlement targets, implying continued selectivity but sustained pathways to permanence. Germany's recent reforms point to continued expansion of skilled recruitment, though administrative capacity and integration requirements are likely to prolong temporary phases. The UK's recent policy tightening and political volatility suggest downward risks for both inflows and settlement. In the United States, demand for skilled workers remains high, but in the absence of legislative reform, wage-weighted selection, higher compliance thresholds, and persistent backlogs are likely to entrench selective access and prolonged temporariness.

Overall, the report confirms that highly skilled migration is increasingly shaped by institutional design rather than by labour demand alone. For migrants from the Gulf, understanding these systemic differences is crucial: the choice of destination increasingly determines not just where one works, but how long uncertainty lasts, and whether settlement is realistically attainable.

The Data Issue

Finally, the report highlights a critical blind spot: the absence of data on step migration from the Gulf to OECD countries. Without direct observation of these pathways, it remains difficult to assess whether OECD destinations provide a genuine alternative to Gulf migration regimes or simply extend temporariness across regions. Addressing this gap is essential for informing both policy design and individual decision-making in an increasingly competitive global market for highly skilled labour.

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Annexed Tables

Annexed Table 1: Highly Skilled Permits by Country and Migration Stage

Country	1a – Entry visa (highly skilled)	1b – Graduation → work transition	2 and 3 – Temporary first-time permit for highly skilled employment + Renewals of temporary permits	4 – Long-term (≥10 years), permanent residence and naturalisations
Canada	No distinct VLS/D-Visa → skilled workers enter directly on a work permit	PGWP (open): one-time, non-renewable <i>de jure</i> ; passport-expiry top-up possible; de facto continuity may appear in stock data via post-PGWP open/bridging permits or public-policy measures	<ul style="list-style-type: none"> • IMP (LMIA-exempt): International agreements (e.g. FTAs/CUSMA professionals), Intra-company transferees (ICT), Significant benefit (C10), Reciprocal employment (C20), Francophone Mobility, other Canadian-interest exemptions • TFWP/ TWP (LMIA-required): Global Talent Stream (Cat. A/B), High-wage stream • PGWP holders in employment (counted where skilled work is observed) 	Permanent Residence (economic): Express Entry streams: <ul style="list-style-type: none"> • Federal Skilled Worker (FSW) • Canadian Experience Class (CEC) • Federal Skilled Trades (FST) • PNP (incl. EE-aligned nominations) Naturalisations: Canadian citizenship acquisitions (total population)
Germany	D-Visa (national long-stay, skilled work)	18-month post-study job-seeker residence permit	<ul style="list-style-type: none"> • § 18a AufenthG (skilled workers with vocational training) • § 18b AufenthG (skilled workers with academic training) • § 18g AufenthG (EU Blue Card) • § 18d AufenthG (researchers) • Intra CT & Mobile ICT (§19, §19b) 	Niederlassungserlaubnis (permanent residence) for highly skilled categories: <ul style="list-style-type: none"> • §18c(3) (Especially highly qualified (academic or vocational)) • §18c(2) (Blue Card holders) • §18c(3) (Researchers; Highly Qualified Persons) Naturalisations: German citizenship acquisitions (total population)
France	VLS “Passeport Talent” (highly skilled entry visa; incl. Blue Card, salarié qualifié, chercheur)	RECE/APS (<i>recherche d'emploi ou création d'entreprise</i> , ~12 months, generally non-renewable)	Passeport Talent (multi-year residence permits): <ul style="list-style-type: none"> • EU Blue Card • Qualified employee, • Researcher, • Entrepreneur/innovative project/investor/company officer (depending on category scope used) 	Carte de résident (long-term residence) Naturalisations: French citizenship acquisitions (total population)
United Kingdom	Skilled Worker entry clearance (also Global Talent/HPI where used as first skilled entry)	Graduate Route (time-limited; non-renewable)	<ul style="list-style-type: none"> • Skilled Worker • Global Talent; • Scale-up Worker • High Potential Individual (HPI) • Innovator Founder 	ILR (Indefinite Leave to Remain) Naturalisations: British citizenship acquisitions (total population)
United States	H-1B entry visa (or O-1, where analysed)	OPT (12 months) + STEM OPT extension (24 months where eligible)	<ul style="list-style-type: none"> • H-1B (specialty occupation) • O-1 (extraordinary ability/achievement) • L-1 (ICT) 	Employment-based permanent residence: <ul style="list-style-type: none"> • EB-1 • EB-2 • EB-3 Naturalisations: US citizenship acquisitions (total population)

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Annexed Table 2: Data-Producing Institutions and Dissemination Sources Used in the Report, by Country of Destination

Geographic unit	Main data-producing institution	Body producing / disseminating data	Type of institution	Main publications / datasets used		Original administrative source of data	Role in the report
Five OECD countries	Organisation for Economic Co-operation and Development (OECD)	Directorate for Employment, Labour and Social Affairs (ELS), International Migration Division	Intergovernmental organisation	International Migration Database; DIOC 2015-16 and 2020-2021 databases	https://www.oecd.org/migration ; https://data-explorer.oecd.org/	National administrative migration statistics transmitted by member states; national population registers and statistical offices	Harmonised, cross-country comparable stock data
Canada	Immigration, Refugees and Citizenship Canada (IRCC)	IRCC – Research and Statistics Division	Federal executive agency (immigration authority)	IRCC Administrative Immigration Data: Temporary Foreign Worker Program (TFWP) and International Mobility Program (IMP) Work Permit Holders – Monthly IRCC Updates; Permanent Residents – Monthly IRCC Updates; Express Entry Year-End Reports	https://search.open.canada.ca/opendata/?owner_org=cic&page=1&sort=metadata_modified+desc	IRCC administrative case management systems (temporary and permanent residence applications and permits)	Measurement of first entries, renewals, permit transitions (IMP, TFWP, PGWP) and permanent residence outcomes
United States	Department of Homeland Security (DHS)	U.S. Citizenship and Immigration Services (USCIS)	Federal executive agencies (immigration authorities)	USCIS Immigration and Citizenship Data; H-1B Employer Data Hub; DHS Yearbook of Immigration Statistics and reports	https://www.dhs.gov/immigration-statistics ; https://ohss.dhs.gov/topics/immigration	USCIS administrative petition and approval systems for non-immigrant and immigrant visas	Measurement of temporary skilled inflows (H-1B only: L-1, O-1 unavailable), renewals, and employment-based permanent residence
Germany	Federal Ministry of the Interior	Federal Office for Migration and Refugees (BAMF)	Federal executive agency	Annual BAMF Migrationsbericht; BAMF Wanderungsmonitoring; BAMF Educational and Labour Migration Monitoring (2020-2024)	https://www.bamf.de/SharedDocs/Anlagen/EN/Forschung/BerichtsreihenMigrationIntegration/MonitoringBildungsErwerbsmigration/mobemi-jahresbericht-2024.html?nn=447198 ; EU Blue Card Statistics – https://www.bamf.de	Central Register of Foreigners (Ausländerzentralregister – AZR)	Measurement of skilled inflows, permit renewals, and transitions to settlement
France	Ministry of the Interior	Directorate-General for Foreigners in France (DGEF) / France-Visas	Central government directorates	Passeport Talent statistics; immigration professionnelle datasets; France-Visas open data	https://www.data.gouv.fr/ ; https://france-visas.gouv.fr	AGDREF administrative system (Application de Gestion des Dossiers des Ressortissants Étrangers en France)	Measurement of selective skilled inflows, post-study transitions, and permit renewals
United Kingdom	Home Office	Migration and Borders Analysis Unit	Central government department	Immigration System Statistics; visa and settlement transparency data	https://www.gov.uk/government/collections/migration-statistics	Home Office visa, extension, and settlement casework systems	Measurement of skilled worker inflows, graduate transitions, renewals, and ILR outcomes

Note: Administrative flow data are produced primarily for legal and operational purposes by national immigration authorities.

Publications listed above disseminate aggregated statistics derived from these administrative systems. The report uses these disseminated datasets, harmonised ex post for comparative analysis.

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Annexed Table 3. Total and Highly Skilled Migrants Stocks (Aged 25-64), by Countries of Destination and Origin (2020-21)

	Canada		France		US	
	Total migrant stocks	Tertiary educated	Total migrant stocks	Tertiary educated	Total migrant stocks	Tertiary educated
India	789,875	572,880	47,144	20,147	2,049,478	1,778,115
Pakistan	172,745	125,100	22,867	4,611	290,714	194,426
Philippines	536,520	385,445	17,734	5,959	1,416,745	877,809
Egypt	45,790	41,485	21,352	9,214	144,157	104,539
Tunisia	24,140	18,860	256,190	93,906	7,953	4,849
Total non-OECD foreign-born aged 25-64	4,723,070	3,184,455	3,824,197	1,332,656	21,244,958	10,297,348

Source: OECD-DIOC Database, 2020-21

Annexed Table 4. Stage 1: Issuances of Entry Authorisations for Highly Skilled Employment (2015-2024)

	Canada	France	Germany	UK	US
		Visa de long séjour Talent	D-visa issuances for highly skilled routes	Entry authorisations (high-skilled work)	
2015	N.A.	N.A.	N.A.	54,946	N.A.
2016	N.A.	N.A.	N.A.	55,679	N.A.
2017	N.A.	N.A.	N.A.	54,407	N.A.
2018	N.A.	N.A.	N.A.	58,054	N.A.
2019	N.A.	N.A.	N.A.	65,656	N.A.
2020	N.A.	12,590	N.A.	38,487	N.A.
2021	N.A.	18,424	N.A.	70,916	N.A.
2022	N.A.	25,261	41,017	160,192	N.A.
2023	N.A.	26,872	N.A.	231,754	N.A.
2024	N.A.	23,979	34,773	102,790	N.A.

Sources: see Annexed Tables 1 and 2

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	Canada	France	Germany	UK	US (H1B only)
Category of permit/programme	IMP selected + TFWP higher-skilled + PGWP	Talent Permits	EU Blue Card- §18b Abs. 2+ Researchers (§18d, §18f, §18d Abs. 6)+ ICT & Mobile ICT (§19, §19b)	Skilled Worker+ Global Talent+ Scale-up Worker+ High Potential Individual + Innovator Founder	Petitions Approved (Initial petitions) (H1B only)
2015	N.A.	N.A.	7,232	N.A.	N.A.
2016	56,249	N.A.	8,485	N.A.	114,503
2017	38,881	N.A.	10,571	N.A.	108,101
2018	80,517	N.A.	14,387	N.A.	93,615
2019	121,716	N.A.	16,605	N.A.	138,927
2020	76,336	7,790	13,869	N.A.	122,886
2021	1,364	10,117	23,154	N.A.	123,414
2022	127,618	15,522	35,237	N.A.	132,429
2023	220,386	15,949	35,186	N.A.	118,948
2024	84,790	15,248	27,850	N.A.	141,205

Annexed Table 5. Stage 2: Issuances of Temporary Entry Permits for Highly Skilled Employment (Aggregated Data, 2015-2024)

Sources: See Annexed Table 1 and 2

Note: Figures in each country column are the addition of the numbers of permits granted within each highly skilled permit category or programme. Numbers refer to work permit holders, not their family dependents.

Annexed Table 6. Stage 3: Renewals or Extensions of Temporary Entry Permits for Highly Skilled Employment (Aggregated Data, 2016-2024)

	Canada	France	Germany	UK	US (H-1B only)
2016	85,681			31,427	230,759
2017	105,684			31,109	257,581
2018	82,678			34,126	238,743
2019	80,275			42,857	249,476
2020	95,859	18,875	20,925	38,923	303,824
2021	213,401	24,858	33,695	65,693	283,657
2022	117,507	31,178	42,675	80,117	309,614
2023	147,994	31,309	44,585	101,507	267,370

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2024	246,250	29,272	51,200	154,048	258,190
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Sources: See Annexed Table 1 and 2

Note: Refers to renewals and extensions of permits and programmes listed in Annexed Table 5.

Note: Figures in each country column are the addition of the numbers of permits granted within each highly skilled permit category or programme

Numbers refer to work permit holders, not their family dependents.

Annexed Table 7. Stage 4: Issuances of Permanent Highly Skilled Permits, by Country of Destination (Aggregated Data, 2016-2024)

	Canada	France	Germany	UK	US
	Express Entry programmes: CEC+ EE- PNP+FST+ FSW		Skilled workers (§18c(1))+ Blue Card holders (§18c(2))+ Especially highly qualified (§18c(3))	ILR	EB1+EB2+EB3
2015	9,805	N.A.	N.A.	19,450	N.A.
2016	33,415	N.A.	N.A.	11,762	117,653
2017	65,420	N.A.	N.A.	8,899	118,474
2018	92,230	N.A.	N.A.	12,318	118,837
2019	109,605	N.A.	N.A.	16,094	120,764
2020	63,895	N.A.	12,411	11,465	134,272
2021	155,850	N.A.	22,752	15,434	175,384
2022	116,375	N.A.	22,170	15,651	241,876
2023	120,820	N.A.	24,135	21,187	170,240
2024	134,980	N.A.	29,680	30,834	142,030

Sources: Annexed Tables 1 and 2

Note: Figures in each country column are the addition of the numbers of permits granted within each highly skilled permit category or programme.

Numbers refer to work permit holders, not their family dependents.

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Endnotes

1 Gulf Labour Markets, Migration and Population Programme (GLMM) and Konrad Adenauer Foundation (KAS) project “Highly Skilled Migration to the Gulf States: How do GCC Countries Fare in the Global Competition for Talent?” <https://gulfmigration.grc.net/projects-highly-skilled-migration/>.

2 OECD: The Organization for Economic Co-operation and Development, currently composed of 38 high-income countries (<https://www.oecd.org/en/about.html>).

3 Stages 1 and 2, however, may be merged within one single stage if labour migration operates through one single administrative stage (entry visa framed as temporary labour admission, when the worker is issued an entry visa linked to a specific employer and job, for example).

4 Database on Immigrants in OECD and non-OECD Countries (<https://www.oecd.org/en/data/datasets/database-on-immigrants-in-oecd-and-non-oecd-countries.html>).

5 The International Standard Classification of Education (ISCED) developed by UNESCO is the reference international classification for organising education programmes and related qualifications by levels and fields.

6 The International Standard Classification of Occupations (ISCO) is a four-level classification of occupation groups managed by the International Labour Organisation (ILO). Its structure follows a grouping by education level (<https://ilostat.ilo.org/methods/concepts-and-definitions/classification-occupation/>).

7 In this case, stages 1 and 2 may be merged into one.

8 OECD 2020: International Migration Outlook 2020, OECD Publishing, Paris, p. 131.

9 OECD 2025: International Migration Outlook 2025, OECD Publishing, Paris.

10 OECD 2025: Education at a Glance 2025, OECD Publishing, Paris https://www.oecd.org/en/publications/education-at-a-glance-2025_1c0d9c79-en/full-report/how-does-educational-attainment-affect-participation-in-the-labour-market_ae451464.html.

11 OECD 2025, N 9, Table 1.A.8. No data available for highly skilled or tertiary-educated migrants alone, but the health sector, for instance, stands as one of the highest skilled.

12 Ibid., pp. 166-68.

13 See relevant papers and figures in the project's section: <https://gulfmigration.grc.net/projects-highly-skilled-migration/>. On Filipino nurses, see: AlAwad, Mouawiya/Malit, Froilan Jr 2025: Beyond the Gulf: Rethinking Stepwise Migration, Citizenship Penalty, and Filipino Nurses in the UAE, in: GLMM/GRC - KAS/RPG Project Policy Brief, 2025.

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14 Singh, Ruchi 2022: Origin of World's Largest Migrant Population, India Seeks to Leverage Immigration, Migration Information Source, March 9.

15 OECD-DIOC database for 2020-2021 does not provide data on migrants in Germany and in the UK.

16 Figures 3.1 and 3.2 are based on the raw numbers of tertiary and total populations (aged 25-64) by nationality and country of destination in Annexed Table 3.

17 Canadian datasets on temporary workers' inflows merge first-time issuance and renewals of permits. To disaggregate the two stages, first entries were proxied by year-to-year increases in permit stocks (available), while renewals were identified from administrative flow records.

18 France operates a predominantly employer-centred skilled-migration system, where access to residence and work rights is primarily conditional on a pre-existing employment relationship rather than points-based or quota-driven selection. The French government's "Passeport Talent" scheme is designed to enable non-EU professionals with an eligible employment contract to obtain a multi-year residence permit tied to work and economic contribution. See: France-Visas (Government of France) 2025: International Talents and Economic Attractiveness. [31.01.2026]. <https://france-visas.gouv.fr/en/france-visas/international-talents-and-economic-attractiveness>.

19 Unlike other destination countries, UK administrative statistics do not distinguish between entry authorisation and the start of stay, as work visas are granted prior to arrival and no separate in-country permit issuance is recorded. As a result, Phase-1 and Phase-2 events are statistically merged in UK data.

20 SPPB 2024: IRCC Deputy Minister Transition Binder 2024 – IRCC Overview Dashboard, January 2024. This rise was largely due to relaxed recruitment rules for high-skilled workers – especially in healthcare (OECD 2025, N 9, p. 34).

21 Ibid.; Federal Ministry of the Interior and Community (BMI) 2025: Immigration by Skilled Workers Up Considerably, Irregular Migration Declines: Skilled Worker Immigration Increased by 77% Since 2021. Press release, 01.04.2025. Federal Ministry of the Interior and Community, Germany <https://www.bmi.bund.de/SharedDocs/pressemitteilungen/EN/2025/04/bpk-bilanz-en.html>.

22 The H-1B programme operates under a numerical cap and lottery system in peak years, where petitions are accepted until the cap is reached and then allocated by random lottery, illustrating how policy limits constrain firm access to skilled workers. Glennon, Britta 2020: How Do Restrictions on High-Skilled Immigration Affect Offshoring? Evidence From the H-1b Program, Nation Bureau of Economic Research (NBER) Working Paper 27,538 <http://www.nber.org/papers/w27538>.

23 OECD 2024: International Migration Outlook, OECD Publishing, Paris; OECD 2025, N 9.

24 IRCC 2025: 2025–2027 Immigration Levels Plan, in: <https://www.canada.ca/en/immigration-refugees-citizenship/news/2024/10/20252027-immigration-levels-plan.html>.

25 OECD 2023: *International Migration Outlook 2023*, OECD Publishing, Paris, Policy Developments chapter.

26 Renewal data for Canada were estimated (see note 17).

27 IRCC 2024: An Immigration System for Canada's Future: A Plan to Get Us There, in: <https://www.canada.ca/en/immigration-refugees-citizenship/campaigns/canada-future-immigration-system/plan.html>.

28 IRCC 2023: Annual Report to Parliament on Immigration, Ottawa: Government of Canada, in: <https://www.canada.ca/en/immigration-refugees-citizenship/corporate/publications-manuals/annual-report-parliament-immigration-2023.html>.

29 Federal Ministry of the Interior (BMI)/BAMF 2023: Skilled Immigration Act – Evaluation.

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30 Pierce, Sarah and Gelatt, Julia 2018: Evolution of the H-1B: Latest Trends in the Program & Reform, Migration Policy Institute, 03.2018. <https://www.migrationpolicy.org/research/evolution-h-1b-latest-trends-program-brink-reform?; FWD.us. 2025: H-1B Visa Program — Policy Brief. 27.01.2025. https://www.fwd.us/news/h1b-visa-program; Bier, David J. 2022: Processing Backlogs in the U.S. Immigration System: Describing the Scale of the Problem. Cato Institute Briefing Paper No. 141, 06.10.2022, https://www.cato.org/briefing-paper/processing-backlogs-us-immigration-system-describing-scale-problem>

31 UK Government 2025: Restoring Control over the Immigration System. White Paper, London, Home Office.

<https://assets.publishing.service.gov.uk/media/6821aec3f16c0654b19060ac/restoring-control-over-the-immigration-system-white-paper.pdf>.

32 “In response to the COVID-19 pandemic, Canada implemented temporary public policies to facilitate permanent residence for temporary residents already in Canada, resulting in unusually high admissions in 2021.” In: IRCC 2023: Annual Report to Parliament on Immigration, Ottawa, Government of Canada, in: <https://www.canada.ca/en/immigration-refugees-citizenship/corporate/publications-manuals/annual-report-parliament-immigration-2023.html>.

33 UK Government 2025, N 31.

34 Atique, Asma 2026: Comparative Legal Frameworks for Highly Skilled Migration: A Post-COVID Analysis of Canada, France, Germany, the United Kingdom, and the United States, GLMM/GRC - KAS/RPG Project Legal Report; OECD 2023, N 25.

35 U.S. Citizenship and Immigration Services (USCIS) 2025: Weighted Selection Process for Registrants and Petitioners Seeking to File Cap-Subject H-1B Petitions. Federal Register 90 (249): 94567–94578, <https://www.federalregister.gov/documents/2025/12/29/2025-23853/weighted-selection-process-for-registrants-and-petitioners-seeking-to-file-cap-subject-h-1b>; U.S. Department of State 2025: Expansion of Screening and Vetting for H-1B and H-4 Visa Applicants, Visa News, <https://travel.state.gov/content/travel/en/News/visas-news/announcement-of-expanded-screening-and-vetting-for-h-1b-and-dependent-h-4-visa-applicants.html>; USCIS 2026: H-1B Cap Season and Electronic Registration Process, <https://www.uscis.gov/working-in-the-united-states/h-1b-specialty-occupations>.

36 Atique 2026, N 34; OECD 2023, N 25.

37 Ibid.; ibid.

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Imprint

Published by Konrad-Adenauer-Stiftung, 2026,
Berlin, Federal Republic of Germany

This publication was published with financial support of
the Federal Republic of Germany.

This statistical report was written in the framework of a joint project with the Gulf Labour Markets, Migration and Population (GLMM) Programme of the Gulf Research Centre (GRC) entitled “Stepwise and Return Migration between the Gulf, Europe and North America – How do GCC Countries Fare in the Global Competition for Talent?”. It forms part of a broader publication series that examines the drivers, governance, and impacts of migration and talent mobility across the Gulf and key global destinations. All publications can be accessed on the Konrad-Adenauer-Stiftung (KAS) website [here](#) and through the GLMM website [here](#).

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