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# Exploiting the Brain Gain Potential for Better Human Capital Outcomes in Jamaica

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# Exploiting the Brain Gain Potential for Better Human Capital Outcomes in Jamaica*

Laura Di Giorgio, Claudia Lopez, Pascal Jaupart, Antonio Fuca, Teresa Talo, and Ana Maria Lara Salinas†

## Abstract

Migration presents both challenges and opportunities that significantly impact the long-term socioeconomic development of Caribbean nations. All countries in the region experience high-skilled international migration, with large outflows of skilled workers potentially hindering economic growth by limiting the scalability of skill-intensive sectors and reducing the productivity of local workers. This paper aims to explore high-skilled migration from Jamaica and assess the potential of Global Skills Partnerships (GSP) to promote a more equitable distribution of migration benefits. Jamaica, with a long history of emigration, has a population of emigrants potentially equal to that of those living on the island. A GSP should leverage existing migration pathways, such as the US Exchange Visitor Program (EVP) and H-2B visa, which address skill shortages. The UK could use ad hoc visas for occupations in demand, such as healthcare workers, teachers, and tourism specialists. In Canada, a GSP might incorporate temporary work permits, similar to the Seasonal Agricultural Worker Program (SAWP). For long-term success, GSPs must be technically and financially sustainable.

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# Executive Summary

**Migration poses a broad spectrum of challenges and opportunities that critically influence the long-term socioeconomic development prospects of Caribbean nations**. All countries within the Caribbean region experience high-skilled international migration and its multifaceted impacts. The primary destinations of high-skilled individuals from the region are the United States (US), Canada, the United Kingdom (UK), and various European countries.

**High-skilled emigration can yield both positive and negative outcomes in origin countries.** Large-scale outflows of high-skilled workers can slow down economic growth in origin countries by hindering the attainment of economies of scale in skill-intensive sectors and reducing the productivity of resident workers. Migration of educated / high-skilled workers, particularly health workers and teachers, can have direct negative impacts on human capital preservation and accumulation in the origin country if needed skills are lacking to keep the population healthy and help it develop its full potential. Moreover, if highly educated workers are trained domestically using public resources, it can have fiscal repercussions, diminishing the returns on public investment in tertiary education and affecting the country's GDP per capita. From a positive perspective, brain drain can potentially transform into brain gain: opportunities for employment abroad can amplify the expected returns to education for individuals, thereby fostering higher educational attainment. Concurrently, high-skilled migrants can enhance access to capital, technology, information, foreign exchange, and business networks for firms in their origin countries. Returning high-skilled migrants also play a pivotal role in knowledge transfer to their home countries (Beine et al., 2008; Clemens, 2009; Jaupart, 2023).

**The objective of this policy note is to gain a deeper understanding of the characteristics of high-skilled migration from Jamaica and conduct a preliminary assessment of the potential of Global Skills Partnerships (GSP) to foster a more balanced distribution of migration benefits.** The data used are secondary data such as censuses, administrative sources, UN and academic population estimates, and survey data. Desk research into reports and academic literature supplements and helps interpret results emerging from the data. The information is completed with some sector information provided by the country. The policy note goal is to develop evidence-based policy recommendations that can help mitigate the adverse effects of brain drain and foster a more balanced and equitable distribution of migration benefits among all parties involved.

**Jamaica has a long history of emigration, characterized by increasing numbers of people moving abroad and low and stable immigration**. Some estimates indicate that the number of people of Jamaican descent living abroad may be as high as the population living in Jamaica (IOM, 2018). In 2020, there were over 1.1 million Jamaican-born emigrants living abroad, accounting for 39.7 percent of the population, according to the United Nations Department of Economic and Social

Affairs (UNDESA, 2020). By contrast, the number of immigrants residing in Jamaica was about 23,600, or just 0.8 percent of the population.

**The three main destination countries for Jamaicans are the US, Canada, and the UK**. In 2020, over 70 percent of Jamaican emigrants resided in the US. The second destination is Canada, with 13.3 percent of the emigrants, and the third is the UK, home to 11.5 percent of Jamaican emigrants. Only 3.1 percent of migrants reside in other Caribbean countries. Notably, about a quarter of Jamaicans living in the US have a bachelor's degree or higher and 9 percent find employment in the healthcare sector. Similarly, the number of Jamaican teachers migrating to the US has considerably increased in recent years, with nearly 5,800 teachers obtaining J-1 visas in 2022, a substantial rise from about 2,800 in 2017 (Romero and Cegarra, 2023).

**Jamaican emigration has increasingly comprised high-skilled individuals in more recent years**. High-skilled emigration from Jamaica began to take off in the late 1990s, accelerating in more recent decades. The stock of high-skilled Jamaicans living abroad increased from 91,700 in 1980 to 400,600 in 2010, with about 309,000 high-skilled Jamaicans joining the diaspora. Jamaican high-skilled emigration has historically comprised of a high number of health care workers and teachers, currently representing a serious concern for the government, as acknowledged in Jamaica's National Development Strategy: Vision 2030 Jamaica – National Development Plan. The number of high-skilled women who have emigrated from Jamaica has exceeded high-skilled men, and the gap has been widening since 1995.

**While educational attainment has been growing quickly in recent decades, there are indications that the education and training systems do not meet the needs of the Jamaican labor market**. The combination of a low level of educational attainment and a low degree of training in the labor force in Jamaica suggests an overall low quality of human capital, which can negatively impact productivity and growth (Downes, 2010). The Caribbean Policy Research Institute (CAPRI, 2023) reported that most job growth in recent years happened in mid-skilled occupations and that the country is losing its skilled labor force to emigration (Brissett, 2017; CAPRI, 2023). Furthermore, Jamaica's high returns to education also point to a scarcity of highly skilled workers (CAPRI, 2023). This skill shortage has been particularly severe in the healthcare sector: in Jamaica, there is 1 nurse per 1,000 people, well below the global average of 3.8 per 1,000, and 0.6 physicians per 1,000 people, again severely below the global average of 1.7 per 1,000 (WHO, 2018). A study conducted in 2007 highlighted a very significant shortage in the nursing sector with an average vacancy rate of 42 percent (Salmon, Hewitt, and Guisinger, 2007). Teachers are also listed as one of the most in-demand professions in Jamaica, which further underscores the critical nature of the emigration issue (Ministry of Labour and Social Security, 2018).

**As part of a coherent approach that includes targeted investments and reforms in the country's skills development system, Global Skills Partnerships (GSPs) emerge as a promising policy tool to combat brain drain and address skills mismatches.** A GSP constitutes a bilateral labor migration agreement between an origin country and a destination country. Under this arrangement, the origin country commits to training individuals in competencies that are both immediately and concurrently needed within its own borders and in the destination country. The destination country agrees to provide technology and finance to train potential migrants with targeted skills in the origin country, prior to migration, and provides migrants with the relevant skills they need to integrate and contribute best upon arrival. The country of origin agrees to provide that training and gets support for the training of non-migrants too – increasing rather than draining human capital. One of the defining features of the GSP is the so-called “dual track” model. Trainees can pick which track they want to go down: a “home” track for non-migrants, and an “away” track for migrants. Those who choose to stay are plugged back into the local labor market, with increased skills and earning potential. Those who choose to move also have increased skills and earning potential, and the ability to migrate legally and safely. They can also be provided with additional training in soft skills, for example in different languages or other facets of integration (Adhikari et al., 2021).

**The potential sectors identified to develop GSPs in Jamaica are healthcare, education, tourism, and information technology (IT)**. Jamaica continues to suffer from shortages in specialized health personnel that affect access to and quality of care. The teaching profession in Jamaica is reported to be facing significant challenges due to high rates of skilled emigration to English speaking countries such as the US, UK and Canada (Brissett, 2018), and teachers are also listed as one of the most in-demand professions in Jamaica (Ministry of Labor and Social Security, 2018). While the tourism sector has proved resilient to the adverse impact of COVID-19, it still struggles to find qualified workers for various roles at all levels, most of whom are attracted to higher paying positions in the Global Services Sector (CAPRI, 2024). Lack of IT skills is regarded as serious concerns for Jamaica (World Bank, 2023).

**Jamaica’s potential partner countries for a GSP are the US, Canada, and the UK**. In addition to being the main destination countries of high-skilled emigration from Jamaica, these countries have similar skill shortages and demand in the healthcare, education, tourism, and IT sectors.

**A successful GSP requires a series of key preconditions to ensure mutual benefits for both origin and destination countries**. These crucial elements are: establishing solid communication channels and constructive working relationships with partner countries in migration, labor mobility in the relevant technical sectors of the GSP; utilizing a multi-stakeholder approach and ensuring the active involvement of both governments, education institutions and private actors from early stages; performing labor market analysis and forecasting as essential tools for designing curricula that align with the current and future needs of both origin and destination countries; and leveraging and strengthening existing training institutions in the origin country to ensure that the training infrastructure is robust and sustainable. Overall, Jamaica possesses most requisites and is well positioned to cooperate with the US, UK and Canada and other international partners to ensure that these fundamental elements are further strengthened, but more analytical work is needed before designing a GSP.

**Based on the current global experience, a pilot GSP model can be implemented at a small scale in the early phases, bringing around 100 trainees in the first cohort**. In practice, the UK could support training for Jamaican nurses, aligning educational curricula with both countries' needs and establishing migration pathways for graduates, while also addressing Jamaica's healthcare worker shortage. Canada could support the enhancement of the Jamaican education and training systems through advanced training in pedagogy and leadership, using a dual track approach that prepares educators for local jobs or employment opportunities in Canada, including training in cultural and linguistic nuances. The US could support developing skills in sustainable tourism management and conservation, supporting local eco-tourism and preparing trainees for the US tourism industry, with substantial contribution from American technology and environmental management. Lastly, trainings in the Information Communication and Technology (ICT) field could feature intensive modules on ICT specific skills, complemented by soft skills to manage clients and integration in the destination country.

**A GSP should foresee and design suitable migration mobility pathways taking advantage of preexisting legal migration schemes**. As the US immigration system tends to not make visas available to address shortages in particular occupations, existing visa pathways such as the Exchange Visitor Program (EVP) and the H-2B visa could be used. Conversely, in the UK, ad hoc visas could be relied on as they are available based on specific identified skills shortages, including nurses and allied healthcare workers, teachers, and tourism specialists. In Canada, a GSP could be accompanied by temporary work permits in relevant fields, following the model of the already established seasonal Agricultural Worker Program (SAWP).

**GSP design needs to ensure long-term technical and financial sustainability**. On the technical side, GSPs need to be consistent with the development strategy of the origin country, as well as sector strategies. Ad hoc pilot projects should be accompanied by broader national development projects aimed at strengthening the local skill development system, while making the certifications obtained convertible in a timely manner, recognized and considered of sufficient high quality compared to people undergoing similar-trainings at the destination. Moreover, a contingency plan is needed to identify potential challenges, address risks and mitigate adverse impacts, while a solid monitoring and evaluation scheme should be developed to track the program's progress and outcomes. Concurrently, specific sector sustainability design elements should be implemented, while mainstreaming cross cutting themes such as digitalization, gender dynamics and climate change adaptation. Lastly, financial sustainability is a key GSP feature to address right from the start. In early stages, it can be ensured by blending official development assistance (ODA) financing with co-financing from the private sector to cover the costs of training under the "away" track.

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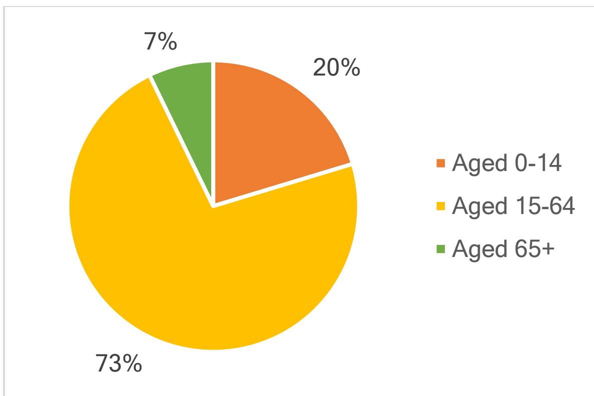
# 1. Country Overview

**Jamaica, with a population of 2.83 million as of 2022, stands as the third most populous Anglophone country in the Americas, following the US and Canada, and the fourth most populous country in the Caribbean.** The median age of the population is 30.8 years, reflecting a similar demographic profile to other Caribbean countries. The country has been experiencing a steady decline in fertility rates and is estimated to have a total fertility rate of 1.35, well below the replacement level of 2.1. Its age structure however remains rather youthful and is quite similar to that of other countries in the region (**Figure 1**).

FIGURE 1. JAMAICA'S POPULATION AGE STRUCTURE




*Source: World Population Prospects (UNDESA 2022)*

**Jamaica is classified as an upper-middle-income and its economy is heavily reliant on tourism, which, alongside mining, is a primary earner of foreign exchange.** Key sectors also include agriculture, manufacturing, petroleum refining, and financial and insurance services (World Bank, 2023).

**Jamaica's service sector, and tourism in particular, accounts for a significant part of the country's economic growth.** Approximately 4.3 million foreign tourists visit Jamaica each year, making tourism a considerable contributor to the economy. The service sector accounts for roughly half of Jamaica's income, underscoring the importance of tourism and related services.

**Remittances also play a crucial role in the economy, accounting for over a fifth (21.6 percent) of the country's GDP in 2022, one of the highest proportions in the region.** By comparison, remittances average 2.6 percent for Latin American and Caribbean (LAC) countries and 9.7

percent in the Caribbean region only. About 70 percent of these remittances come from the US, reflecting Jamaica's large diaspora in the country (IDB, 2023).

**Since 2013, Jamaica has made notable progress in economic management by implementing effective fiscal consolidation measures**. The country reduced its public debt-to-GDP ratio by more than 60 percentage points to 75.5 percent in 2023, the lowest level in 25 years (World Bank, 2023). The country has managed to strengthen fiscal consolidation while prioritizing social protection and welfare in recent years. Jamaica has also sought to integrate climate change adaptation into its policy framework to reinforce its social resilience to climate-related shocks.

**In post-pandemic years, economic growth has been accompanied by improvements in employment**. By October 2023, the unemployment rate had dropped to a record-low 4.2 percent, while the poverty rate decreased from 13.9 percent in 2021 to an estimated 12.3 percent in 2023. However, the quality of employment remains a concern, with high levels of informality (46.8 percent of non-agricultural employment in 2020) and fewer average hours worked compared to pre-pandemic levels (World Bank, 2024). Furthermore, Jamaica remains highly vulnerable to external shocks, particularly those related to climate change, flooding, and hurricanes. Its dependance on sectors such as tourism and trade also increases its vulnerability to external shocks.

# 2. INSTITUTIONAL FRAMEWORK: MIGRATION AND HUMAN CAPITAL

## 2.1. REGIONAL PARTNERSHIPS AND MIGRATION GOVERNANCE

**Jamaica is well integrated in the region through its membership in key organizations**. As a member of the Caribbean Community (CARICOM), Jamaica participates in a regional grouping of 15 states aimed at promoting economic integration and cooperation among its members, fostering collective development. By being part of the CARICOM Single Market and Economy (CSME), Jamaica is also committed to the free movement of goods, services, capital, and labor across member states, which enhances the country's economic opportunities and integration with larger markets.

**One of the most significant aspects of the CSME is the free movement of people**. Citizens of CSME countries are allowed to reside in other member states for up to six months without requiring a work permit. However, during this period, they are not permitted to engage in employment unless they have a Skills Certificate. The CARICOM Skills Certificate plays a pivotal role in the free movement of skilled labor. It serves as a standardized proof of qualification that is recognized by all member states, enabling holders to seek employment in any member country without the need to acquire a specific work permit in the destination country. Workers with specific qualifications, such as university degrees or recognized vocational qualifications (nurses and teachers, among others), can move and work freely within member states.

**The Planning Institute of Jamaica (PIOJ) plays a pivotal role in overseeing the intersection of migration and development within the country**. Supported by a comprehensive legislative framework on immigration and emigration, Jamaica also utilizes an inter-ministerial coordination mechanism to address various migration issues effectively.

**In 2017, Jamaica developed a National Policy on International Migration and Development, aligned with its broader national development plan, Vision 2030 Jamaica**. This policy focuses on enhancing the welfare of both the Jamaican diaspora and returnees, facilitating their reintegration and harnessing their potential to contribute to national development.

**Further institutional support for the diaspora includes the establishment of a Diaspora Advisory Board within the Ministry of Foreign Affairs in 2004**. This board engages in biannual meetings with stakeholders from countries with significant Jamaican populations, such as the US, Canada, and the UK.

**In 2009, the influence of the diaspora was recognized through the formation of a Joint Select Committee of the Houses of Parliament on Diaspora Affairs, aimed at championing diaspora interests within legislative frameworks**. In an effort to further integrate diaspora resources into national development, the Ministry of Foreign Affairs introduced a Diaspora Affairs Department (DAD) within its Consular Division in 2017. This department is tasked with encouraging diaspora participation through various initiatives, including public-private partnerships.

**Jamaica has established bilateral labor agreements with the US and Canada, primarily targeting the agricultural and hospitality sectors**. These agreements focus on low-skilled labor, and in a temporary employment scheme, enabling many Jamaicans to find work abroad and contribute to their home economy through remittances and returning home to spend some time with their families. One of the most prominent bilateral labor agreements is the SAWP between Jamaica and Canada. Established in 1966, SAWP allows Jamaican workers to be employed in Canada's agricultural sector for up to eight months per year. This program is crucial for Canada's agricultural productivity, addressing seasonal labor shortages, particularly in the provinces of Ontario and British Columbia, which are major agricultural hubs[1]. In the US, Jamaica engages primarily with the H-2A and H-2B visa programs. The H-2A visa allows for the temporary employment of foreign agricultural workers, while the H-2B visa covers non-agricultural sectors, including hospitality. These programs are crucial for meeting labor demands in industries that face chronic shortages of domestic workers willing to undertake low-skilled, seasonal, or temporary jobs.[2]

## 2.2. Skills Development Landscape in Jamaica

**Education in Jamaica is a cornerstone of the nation's development strategy, administered primarily by the Ministry of Education (MoE) through its central office and six regional offices**. The formal education system, as stipulated by the Education Act of 1980, comprises four levels: early childhood, primary, secondary, and tertiary. Public education is predominantly funded by

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[1] More than 8000 Jamaican benefited from the SAWP program in 2016 (Williams, 2016) and the temporary foreign workers employed in the agricultural sector in Canada has been constantly growing since then, from 53,842 in 2017 to 70,267 in 2023 (Statistics Canada, 2024).

[2] The Jamaican Ministry of Labour coordinates the screened pre-candidates for criminal records. If security checks are cleared, then candidates are informed of the date scheduled for medical assessment. The Overseas employment unit of the Ministry of Labor and Social Security also coordinates and ensures that workers have a medical check. Once it is completed and workers are found to be in good health, international security checks are carried out by the High Commission of Canada. Subsequently, workers are placed with an employer and then called to attend the Visa Application Centre (VAC) to have their biometrics done. This involves the applicants having their photograph and fingerprints taken electronically. Source: https://mlss.gov.jm/departments/overseas-employment/

taxation revenue through annual budgetary allocations, while private institutions rely on tuition fees and other student charges.

**Tertiary education in Jamaica is delivered in universities, teachers' colleges, community colleges, and specialized institutions**. The most significant institutions include: The University of the West Indies (UWI), a major public university catering to students in the Caribbean region offering a comprehensive range of undergraduate and graduate programs across various disciplines, including science, technology, humanities, social sciences, and medicine; the public University of Technology (UTech), focusing on applied research and professional training in engineering, business, health sciences, and other technical disciplines; the Northern Caribbean University (NCU), a private institution established offering a variety of undergraduate and graduate programs in fields such as business, education, religion, and science; and the private Caribbean Maritime University (CMU), offering programs in shipping, logistics, engineering, marine and nautical studies and related fields.

**Technical and Vocational Education and Training (TVET) is provided by a couple of institutions, offering pathways to further one's education or direct entry to the labor market**. Established in 1982, the Human Employment and Resource Training Trust, National Training Agency (HEART Trust/NTA) is the main institution for technical and vocational education and training in Jamaica. It operates through workplace-based, institution-based, and community-based training modalities. In the fiscal year 2021-2022, HEART Trust/NTA certified 46,473 trainees (including 38 percent in services, 15 percent in tourism and 10 percent in construction). The Vocational Training Development Institute (VTDI) is part of the HEART Trust/NTA and focuses on training TVET instructors. Moreover, the Management Institute for National Development (MIND) also provide management and leadership training for the public sector, playing an important role in enhancing the human resource capacity of government institutions. Lastly, Community colleges, such as Excelsior Community College and Portmore Community College - along with various private institutions - offer a range of academic and vocational programs.

**Jamaica's national development plan, Vision 2030 Jamaica, identifies the misalignment between the skills delivered by the education and training systems and labor market demand as a pivotal challenge**. In 2019, about a third of all workers were underqualified for their jobs, with most of these in mid-skilled employment (World Bank, 2023, Jobs Diagnostic, based on LFS data). In consultations cited by the World Bank 2023 Jobs Diagnostic, most employers indicated that the recruitment of adequately skilled employees, including occupation-specific and soft skills, was a major challenge. Current training programs also seem to be misaligned with the evolving demands of the workplace (CAPRI, 2024).

**To increase the relevance of tertiary education programs, the Vision 2030 plan suggests enhancing collaborations between educational institutions and the private sector, specifically in the development of curricula and research agendas to increase program relevance**. To effectively respond to these changes, high-growth sectors such as hospitality, construction, and ICT should be prioritized. This strategic approach is crucial for equipping the workforce with the necessary skills to thrive in a dynamic economic environment.

**In addition to these strategies, Jamaica has been steadily increasing the number of locally trained doctors, but geographic allocation issues persist.** For example, between 2012-2018, the number of doctors graduating increased from 133 in 2012 to 352 in 2018 (McCartney et al., 2019). Local news also mention graduation of 400 to 500 nurses every year (Radio Jamaica, 2022). However, Jamaica's absorption capacity has remained limited, leaving healthcare workers with few employment opportunities in the country, as reflected by the multiple strikes in the country. Moreover, Jamaica healthcare resources - including facilities and healthcare workers – are unequally distributed across the country, with the majority of doctors and nurses opting to work in the most served urban areas, leaving rural and periphery areas underserved (Edwards & Madu, 2023).

# 3. Migration Landscape in Jamaica

**This section provides an overview of migration population figures**.[3] To delve deeper into the phenomenon of brain drain, the section analyzes emigration based on levels of educational attainment, as well as the rate of emigration out of the total Jamaican population across skill levels. Section 4 investigates the Jamaican diaspora in the US, examining its sociodemographic characteristics and the industries in which its members work.

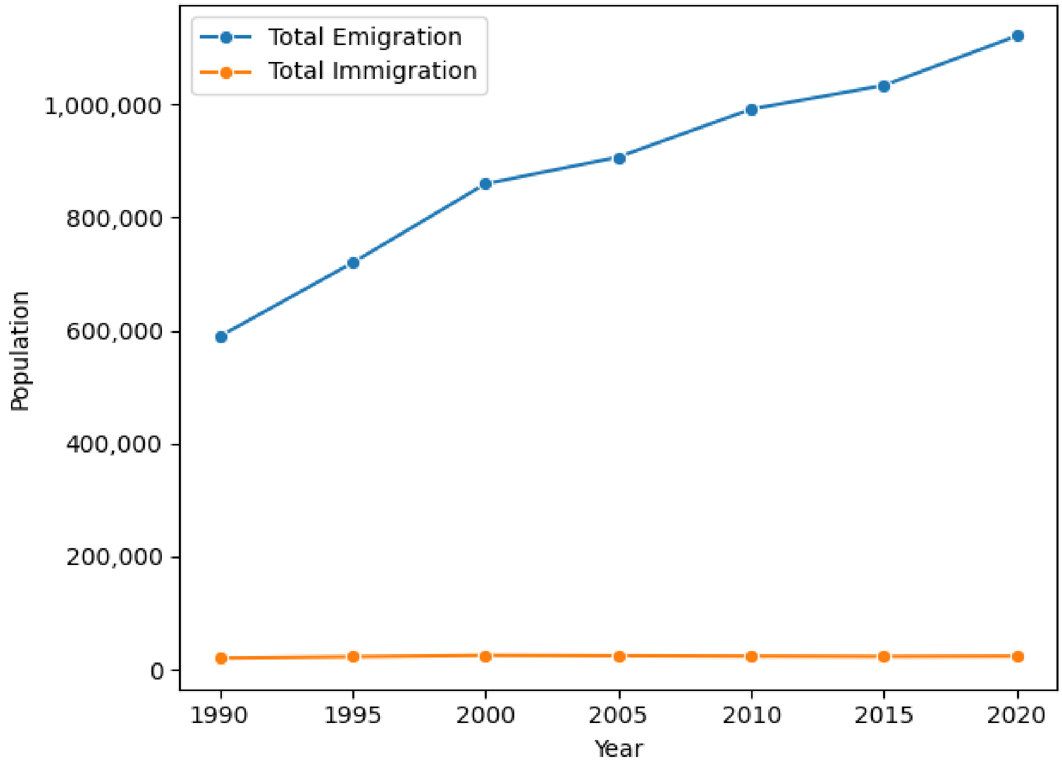
## 3.1. Migration population figures

**Jamaica has a long history of emigration, characterized by increasing numbers of people moving abroad and low and stable immigration**. Some estimates indicate that the number of people of Jamaican descent living abroad may be as high as the population living in Jamaica (IOM, 2018). In 2020, there were over 1.1 million Jamaican-born emigrants living abroad, accounting for 39.7 percent of the population, according to UNDESA. By contrast, the number of immigrants residing in Jamaica was about 23,600, or just 0.8 percent of the population. The number of Jamaicans residing abroad has been consistently high and continues to increase, while the number of immigrants living in the country remains low and stable (Figure 2).

**The three main destination countries for Jamaicans are the US, Canada, and the UK**. In 2020, over 70 percent of Jamaican emigrants resided in the US. This trend is common among several Anglophone Caribbean nations, where the pull of the US is stronger compared to non-Anglophone countries in the region (Figure 3). The second destination is Canada, which hosts 13.3 percent of the migrants, and third is the UK, home to 11.5 percent of Jamaican emigrants. Only 3.1 percent of emigrants are hosted in other Caribbean countries. In the early 20th century, the UK was a major destination for Jamaicans; however, this began to change in the 1960s when policy shifts encouraged more Jamaicans to seek opportunities in North America, particularly in the US (IOM, 2018).

[3] This section and the report at large define a migrant as someone living for a period of over a year outside their country of birth, regardless of the reason for moving. This in line with various international organizations sources of international statistics used (UN Statistics Division 1998, International Organization for Migration 2019, UN 2024).

FIGURE 2. EMIGRATION AND IMMIGRATION STOCKS OVER TIME

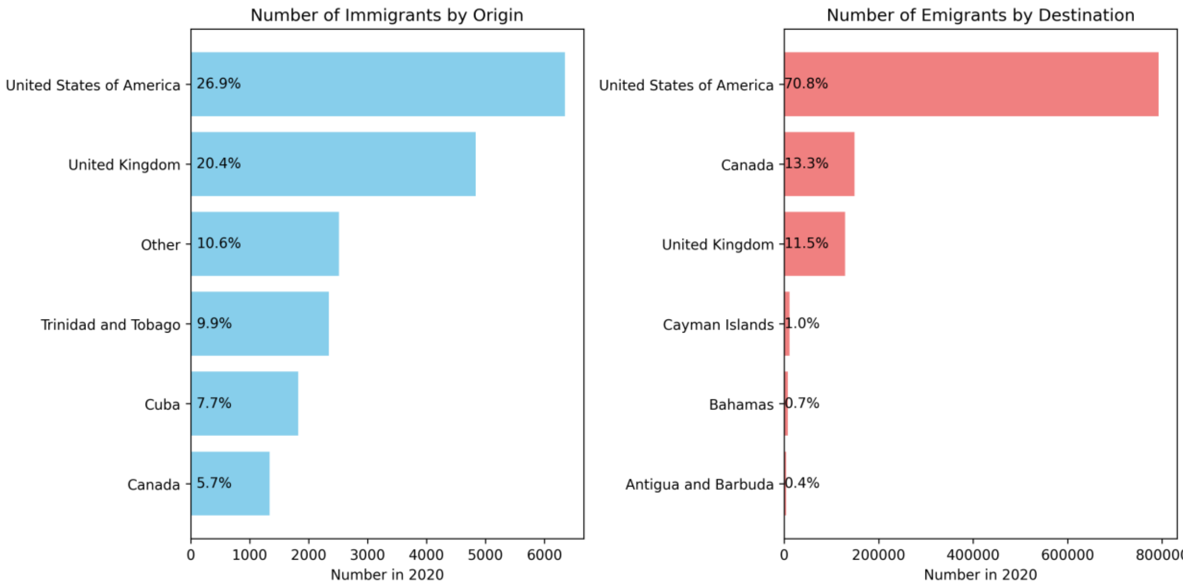



*Source: United Nations Department of Economic and Social Affairs (UN DESA), International Migration Stock, 2020 Revision*

**The primary origin countries of the small number of immigrants residing in Jamaica are the US and Canada.** This may be partly due to the return migration of individuals of Jamaican descent who were born abroad (Lacarte et al., 2023). A small number of migrants from other Caribbean states also settle in Jamaica (Figure 3).

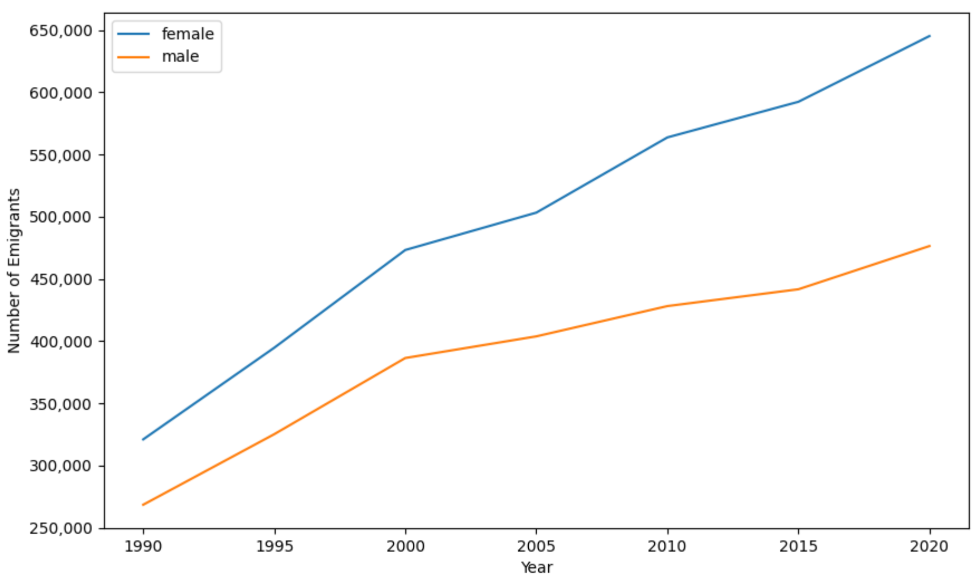
**The majority of Jamaican emigrants are female, and this gender gap in emigration trends has grown over time.** In 2020, 57.5 percent of Jamaican-born migrants residing abroad were female. This prevalence of female emigration is in line with what is observed in other Caribbean countries. By contrast, the ratio of male to female immigrants is fairly balanced (49.2 percent are female). The total number of female emigrants exceeded the number of male emigrants already in 1990. However, the gap between the number of female and male emigrants has grown over time (Figure 4).

## FIGURE 3. NUMBER OF IMMIGRANTS AND EMIGRANTS IN 2020




*Source: United Nations Department of Economic and Social Affairs (UN DESA), International Migration Stock, 2020 Revision*

## FIGURE 4. NUMBER OF EMIGRANTS, BY SEX

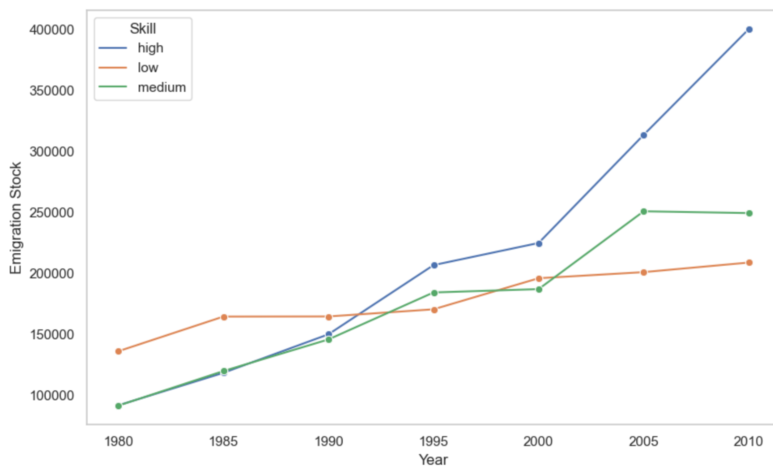



*Source: United Nations Department of Economic and Social Affairs (UN DESA), International Migration Stock, 2020 Revision*

## 3.2. Emigration, Brain Drain and Impact on Human Capital

**In recent years, Jamaican emigration flows have increasingly comprised high-skilled individuals**. To delve deeper into the role of emigration on human capital accumulation and brain drain, it is essential to consider data that encompass both emigration rates and skills.[4] The Jamaican diaspora to OECD countries grew between 1980 and 2010, albeit differently according to skill level (Figure 5). The number of low-skilled Jamaicans abroad was higher than that of medium- and high-skilled Jamaicans throughout the 1980s. High-skilled emigration from Jamaica really began to take off in the late 1990s, accelerating in more recent decades. The stock of high-skilled Jamaicans living abroad increased from 91,700 in 1980 to 400,600 in 2010, with about 309,000 highly educated Jamaicans joining the diaspora. By contrast, the number of low-skilled Jamaicans went from 136,000 in 1980 to 209,000 in 2010, indicating an addition of only 73,000 new people with this skill profile leaving the island.

FIGURE 5. JAMAICAN DIASPORA OVER TIME, BY SKILL LEVEL



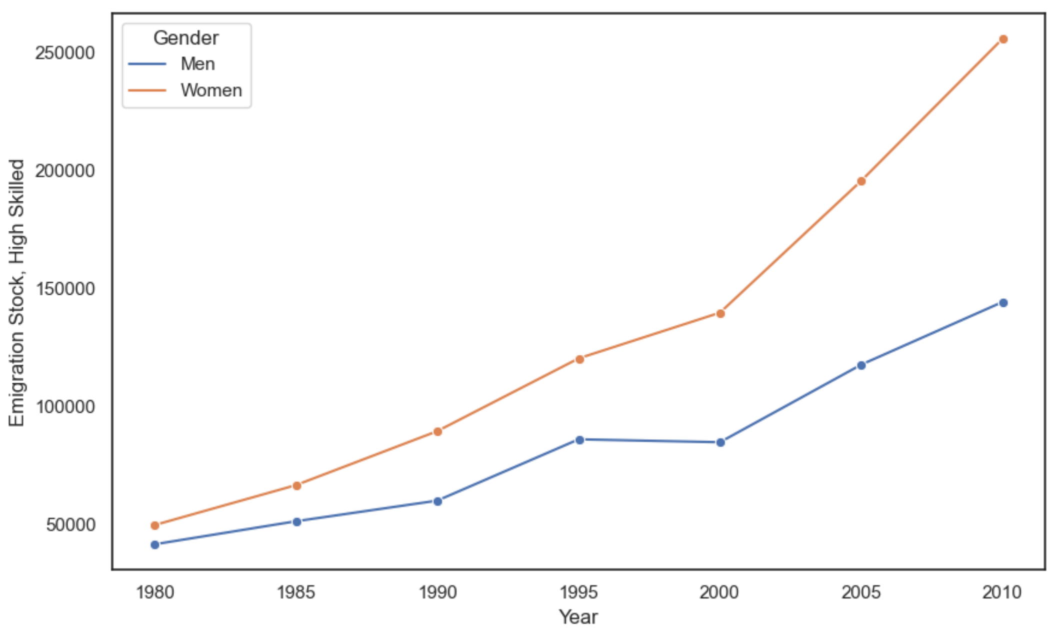

*Source: IAB Brain Drain dataset, Brücker H. et al. (2013).*

[4] Datasets compiled by the German Institute for Employment and Research (IAB) contain emigrants living in 20 OECD countries (i.e., emigration stock figures) as well as emigration rates that refer to the percentage of migrants, out of the total pre-migration population (which includes both residents and migrants) in each source country. Both emigration stocks and rates are broken down by gender, skill level, and year, focusing on individuals aged 25 years and older. The choice to only consider people over 25 is driven by the intention to maximize comparability with data sources in countries of origin. Also, the population over 25 is less likely to contain students that may temporarily emigrate for educational purposes. This dataset builds on Docquier, Lowell and Marfouk (2007), Defoort (2008), as well as OECD figures on migrants and skill level; The main limitation of this dataset is that it only provides figures up to 2010. However, to date there are no equivalent datasets that allow to analyze emigration patterns by educational attainment.

**The number of high-skilled women emigrating from Jamaica exceeds high-skilled male emigrants, and the gap has been widening since 1995**. For those with low and medium skills, the emigration levels between genders remain closely aligned, essentially moving in parallel. In contrast, for high-skilled individuals, a divergence began in the mid-1990s, with more women than men leaving the country, and accelerated in the 2000s (Figure 6). In 1980, there were about 41,800 men with high skills abroad and about 50,000 women; these figures increased to 145,000 men and 256,000 women by 2010.

**Despite a decrease in the emigration rate of high-skilled Jamaicans in recent years, significant brain-drain persists**. To further analyze this trend, it is essential to examine the emigration rate of high-skilled Jamaicans, which can be calculated by comparing the percentage of those emigrating to the total number of Jamaicans with tertiary education, both within Jamaica and abroad. This analysis shows that in 2010, 64.2 percent of high-skilled Jamaicans had migrated abroad (versus 23 percent of moderately skilled individuals and 34.6 percent of those with lower skill levels). While these numbers suggest a substantial relative decrease in the emigration rate of high-skilled Jamaicans in recent years from the 84.7 percent recorded in 1980, a significant level of brain drain persists and has the potential to significantly impact the country's human capital stock.

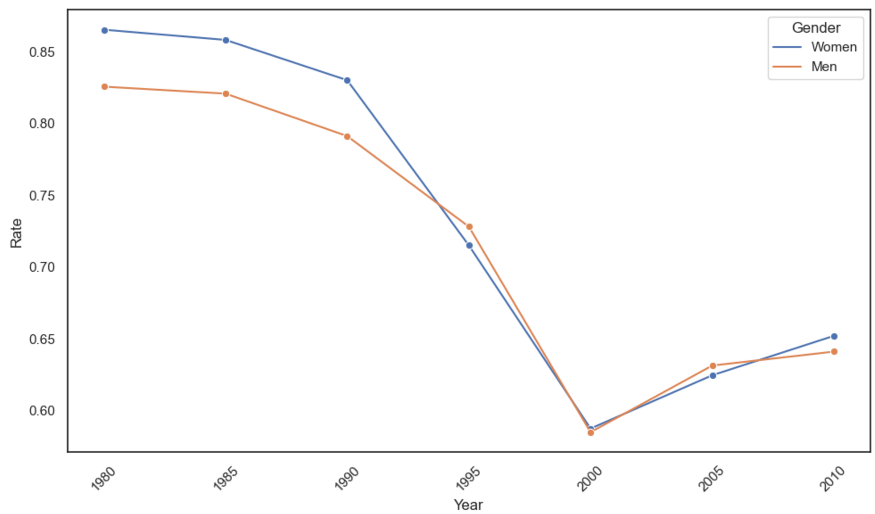
FIGURE 6. HIGH SKILLED JAMAICAN DIASPORA, BY GENDER AND OVER TIME (1980-2010)




*Source: IAB Brain Drain dataset, Brücker H. et al. (2013).*

**The decrease in Jamaica's high-skilled emigration rate is not compensated by sufficient educational attainment after 2000**. Figure 7Figure 7 shows a decrease in the rate of brain drain up to about 2000, after which the rates appear to go slightly up through 2010. This initial decrease could suggest that increasing numbers of Jamaicans are getting tertiary degrees, thus compensating for high-skilled emigration. However, after 2000, it would seem that the increase in education levels is no longer sufficient to mitigate the concurrent emigration of high-skilled Jamaicans.

FIGURE 7. EMIGRATION RATES OF HIGH SKILLED JAMAICANS, BY GENDER




*Source: IAB Brain Drain dataset, Brücker H. et al. (2013).*

**While positive selection based on skill level tends to decrease with countries' income levels and is prevalent in less developed countries, high-skilled emigration poses a significant challenge for the Caribbean region, exceeding expectations based solely on its level of development**. This is in large part due to the fact that many Caribbean nations are small in size, making it difficult for them to absorb high-skilled individuals into their labor markets (Docquier and Schiff, 2008). Small economies tend to be less diversified than larger ones and more reliant on trade: this reduces the demand for diversified skilled labor. Additionally, their proximity to large and prosperous labor markets like the United States makes emigration an attractive option for high-skilled individuals. This pull factor is even more pronounced for Anglophone Caribbean countries, as they do not face significant language barriers.

**Caribbean countries are overrepresented among the top 15 countries exposed to high-skilled emigration.** When countries are ranked according to the percentage of high-skilled individuals who have left their countries of birth, Caribbean nations constitute a significant portion of the top 15 countries, namely 12 out of 15 (see Table 1).

### TABLE 1. TOP 15 COUNTRIES WORLDWIDE FOR RATE OF HIGH SKILLED EMIGRATION

| ***Country*** | ***Total*** | ***Low*** | ***Medium*** | ***High*** |
|---|---|---|---|---|
| Guyana | 48.76% | 30.03% | 36.97% | **99.54%** |
| Barbados | 33.22% | 52.12% | 13.13% | **91.71%** |
| Antigua and Barbuda | 32.71% | 32.12% | 15.10% | **88.96%** |
| Haiti | 11.95% | 4.89% | 13.28% | **84.89%** |
| Trinidad and Tobago | 26.47% | 10.82% | 16.37% | **83.45%** |
| Grenada | 48.19% | 51.17% | 28.84% | **82.27%** |
| Dominica | 50.21% | 64.34% | 24.72% | **80.64%** |
| Saint Kitts and Nevis | 41.40% | 48.42% | 19.85% | **78.37%** |
| Saint Vincent and the Grenadines | 37.54% | 40.83% | 19.31% | **75.90%** |
| Sao Tome and Principe | 17.44% | 14.12% | 19.59% | **72.62%** |
| The Bahamas | 11.54% | 5.47% | 5.40% | **71.04%** |
| Tonga | 49.52% | 54.42% | 38.51% | **69.77%** |
| Cape Verde | 33.63% | 29.19% | 38.15% | **69.61%** |
| Jamaica | 37.23% | 34.55% | 23.01% | **64.81%** |
| Belize | 23.38% | 6.55% | 30.41% | **63.43%** |

*Source: IAB Brain Drain dataset, Brücker H. et al. (2013).*

On the downside, it may impede growth in countries of origin by hindering the attainment of economies of scale in skill-intensive sectors and reducing the productivity of resident workers. Moreover, if highly educated workers were trained domestically using public resources, it can have fiscal repercussions and diminish the returns on public investment in tertiary education.

**However, brain drain can potentially transform into brain gain.** As might be the case for Jamaica, opportunities for employment abroad can amplify the expected returns to education for individuals, thereby fostering higher educational attainment within the country. Additionally, in numerous Caribbean nations, remittances constitute a substantial portion of the GDP. Furthermore, high-skilled migrants can enhance access to capital, technology, information, foreign exchange, and business networks for firms in their countries of origin. Returning high-skilled migrants also play a pivotal role in knowledge transfer to their home countries (Beine et al., 2008; Clemens, 2009; Jaupart, 2023). However, considerations on the costs and benefits of migration of skilled workers need to take into account the equity dimension: while doctors and nurses usually receive at least publicly financed education, remittances are usually sent back to specific private families, potentially exacerbating inequalities by increasing the wealth of the wealthier population groups as compared to the groups most in need (Aluttis et al., 2014).

# 4. Diaspora in the US

**Approximately 70.8 percent of Jamaicans living abroad reside in the US, accounting for 972,000 people out of the 1,119,000 emigrants abroad, according to UN DESA's 2020 data**. ACS survey data[5] suggests that the foreign-born population in the US amounts to about 11.9 percent of the total population, the Caribbean population accounts for 1.08 percent and those born in Jamaica are 0.2 percent.

## 4.1. Socio-demographics of Jamaican Migrants

**Jamaican migrants arrived on average in the US slightly earlier than immigrants from other countries, including those from the Caribbean**. The median year of arrival for Jamaicans is 1995, compared to 1998 for all foreign-born individuals in the US. Jamaican migrants in the US have a similar age profile with respect to other Caribbean migrants and are about four years older that the average immigrant to the US. As for other Caribbean migrants, their median age upon arrival was 22. Jamaican migrants in the US are more likely to be female compared to other migrant groups (Table 2).

TABLE 2. SOCIODEMOGRAPHIC CHARACTERISTICS OF MIGRANT GROUPS IN US

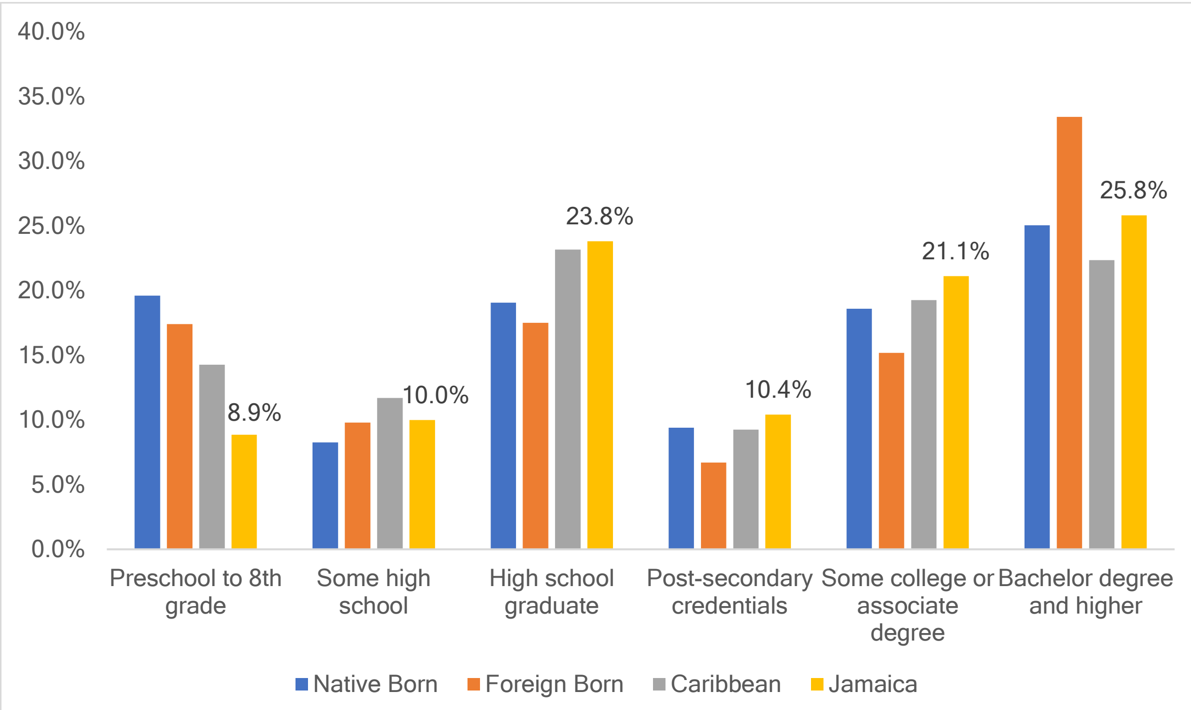
| | Native born | Foreign born | Caribbean | Jamaica |
|---|---|---|---|---|
| Percent women | 50.6% | 52.7% | 54.7% | 56.9% |
| Median age | 42 | 48 | 52 | 52 |
| Percent with at least Bachelors | 25.0% | 33.4% | 22.3% | 25.8% |
| Median year of arrival | N/A | 1998 | 1997 | 1995 |
| Median age at arrival | N/A | 21 | 22 | 22 |

*Source: American Community Survey, 2018-2022 five-year estimates (2022).*

[5] The American Community Survey (ACS) allows to better understand the characteristics of the Jamaican diaspora and compare it with other immigrant populations in the US, in particular Caribbean immigrants. This survey is conducted yearly and contains a random sample of one in 100 people in the US population, which allows to study even a relatively small population such as Jamaicans living in the US. Here the 2018-2022 ACS five-year estimates are used; these data contain a sample size of over 15.7 million observations, including a sample of over 29,500 Jamaicans residing in the US.

**Jamaicans, on average, have a slightly higher level of educational attainment than their US native-born counterparts and are equally likely to have at least a bachelor's degree**. They are also somewhat more educated than other Caribbean immigrants but less than the foreign-born population on average (Figure 8).

FIGURE 8. EDUCATIONAL ATTAINMENT LEVEL, BY MIGRATORY GROUP IN THE US




*Source: American Community Survey, 2018-2022 five-year estimates (2022).*

**About a quarter of Jamaicans living in the US have a bachelor's degree or higher.** These highly educated Jamaican migrants are 65.4 percent female while migrants without a bachelor's degree are 53.9 percent female. Their median age is 51 at the time of the interview and their average age of arrival was 1990. This would suggest that most of them arrived by age 19 and that therefore they are likely to have obtained their degree in the US. Jamaicans without a bachelor's degree had a median age of 53 at the time of their interview and had arrived on average in 1996. This would imply a median age of arrival of 27 suggesting that this group migrated after having completed their education.

## 4.2. Sector of employment of the Jamaican population in the US

**The Jamaican emigrant population presents a higher likelihood of participation in the labor force compared to the non-migrant US population**. Close to 70 percent of Jamaicans in the US are in the labor force compared to around 60 percent for the US natives. They are also more likely to be employed compared to other migrant groups, including Caribbeans (Table 3).

**The industry where Jamaicans are most overrepresented compared to native-born Americans is healthcare support, a trend also generally observed among all Caribbean migrants**. About 9 percent of Jamaicans in the US work in healthcare support, compared to 1.6 percent of the US-born population. This category includes occupations such as medical assistants, aides, and home health aides. Additionally, Jamaican migrants show significant overrepresentation among medical staff – this category includes all Healthcare Practitioners and Technical Occupations, such as physicians, therapists, technicians, and nurses. Jamaicans are also more likely than other Caribbean migrants in the US to be employed as medical professionals. These findings corroborate the suggestion that the emigration of healthcare workers from Caribbean countries, including Jamaica, is indeed taking place (Sands et al., 2020; Lacarte et al., 2023).

TABLE 3. INDUSTRY OF OCCUPATION BY MIGRANT GROUP IN US, PERCENTAGES

| | Native born | Foreign born | Caribbean | Jamaican | Jamaica - Native born[6] |
|---|---|---|---|---|---|
| **Healthcare Support** | 1.6 | 3.0 | 6.0 | 9.0 | 7.3 |
| **Medical** | 3.4 | 4.2 | 4.4 | 6.5 | 3.1 |
| **Transport** | 4.3 | 5.4 | 7.7 | 6.3 | 2.0 |
| **Clean Maintenance** | 1.8 | 4.3 | 4.5 | 3.3 | 1.5 |
| **Office Admin** | 6.7 | 5.8 | 7.2 | 7.8 | 1.2 |
| **Protective Services** | 1.3 | 0.8 | 1.6 | 2.1 | 0.8 |

[6] This column looks at the difference in percentage points between Jamaicans working in these industries and people born in the US. It is a measure of how over(under)represented Jamaicans are in these industries.

| | | | | | |
|---|---|---|---|---|---|
| **Social Service** | 1.1 | 0.9 | 1.2 | 1.7 | 0.6 |
| **Repair** | 1.8 | 1.7 | 2.2 | 2.3 | 0.5 |
| **Personal Care** | 1.6 | 2.3 | 2.3 | 2.0 | 0.5 |
| **Financial** | 1.2 | 1.6 | 1.2 | 1.7 | 0.4 |
| **Construction** | 2.5 | 4.4 | 3.3 | 2.9 | 0.4 |
| **Unemployed** | 0.3 | 0.5 | 0.6 | 0.6 | 0.3 |
| **Education** | 4.0 | 3.7 | 3.3 | 4.2 | 0.2 |
| **Military** | 0.2 | 0.1 | 0.2 | 0.4 | 0.2 |
| **Farm Fish Forest** | 0.4 | 1.1 | 0.2 | 0.3 | 0.0 |
| **Extraction** | 0.1 | 0.1 | 0.0 | 0.0 | -0.1 |
| **Business** | 2.0 | 2.0 | 1.5 | 1.9 | -0.1 |
| **Legal** | 0.7 | 0.5 | 0.5 | 0.6 | -0.1 |
| **Computer and Math** | 1.6 | 3.7 | 1.3 | 1.5 | -0.1 |
| **Scientists** | 0.6 | 1.1 | 0.4 | 0.4 | -0.2 |
| **Food Prep** | 3.1 | 4.2 | 3.3 | 2.8 | -0.2 |
| **Architects and Engineers** | 1.1 | 1.9 | 0.8 | 0.8 | -0.3 |
| **Managers** | 5.3 | 5.6 | 4.3 | 5.0 | -0.4 |
| **Other** | 1.0 | 1.0 | 0.6 | 0.6 | -0.4 |
| **Entertainment** | 1.3 | 1.4 | 0.9 | 0.8 | -0.5 |
| **Sales** | 5.7 | 5.6 | 5.5 | 5.0 | -0.7 |
| **Production** | 3.0 | 4.6 | 3.7 | 2.3 | -0.7 |
| **Not in labor force** | 42.3 | 29.0 | 31.6 | 27.2 | -15.1 |

*Source: American Community Survey, 2018-2022 five-year estimates (2022).*

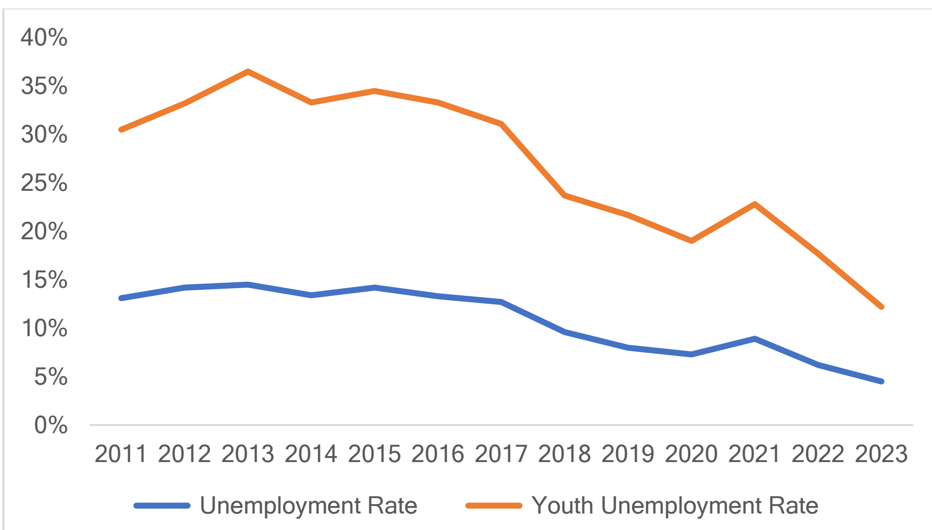
**Jamaican medical and healthcare professionals living in the US seem to be overwhelmingly female**. Among the 207 respondents in these categories in the ACS, 88.2 percent of them are women. This is consistent with the overall proportion of women in the US healthcare workforce, making up about 76 percent (McKinsey, 2023). As the overall women participation in the US labor force is about 56 percent (US Bureau of Labor Statistics, 2022), this indicates that the healthcare is a sector traditionally attracting more women, especially in nurses' specialization. The median age upon arrival in the US of professionals in these categories is 27, with half arriving before the age of 20. This would indicate that some of them may have received their education before moving to the US. Having been trained outside and then moving would constitute a significant loss of human capital for the sending country. This underlines the importance of promoting both education and job opportunities for people interested in healthcare industries in Jamaica, while highlighting the potential benefits of establishing GSP programs. Many are drawn to the US, as well as in Canada and the UK, in search of better employment conditions, wages, and career advances opportunities (ECLAC, 2003; Jaupart, 2023). This is particularly true for women, who may perceive better chances abroad.

# 5. Labor Market and Human Capital in Jamaica

**The working-age population in Jamaica accounted for 65.4 percent of the total population in April 2023.** This rise in the share of working-age population[7] is attributed to the country's rapid decline in youth dependency rates. Labor force participation changes significantly by gender with male participation at 70.9 percent and female participation at 60.2 percent. Over the past two decades, the women's participation has increased, albeit rather slowly as it was at 55.7 percent in 2013 (Statistical Institute of Jamaica, 2023).

**In April 2023, the overall unemployment rate was 4.5 percent while the youth unemployment rate was 12.2 percent.** Youth unemployment (15 to 24 years old) has historically been higher than unemployment in the general population, as shown in Figure 9. While still a rather high figure, this number is much lower than its level a decade earlier when it stood at 37 percent.

FIGURE 9. UNEMPLOYMENT OVER TIME

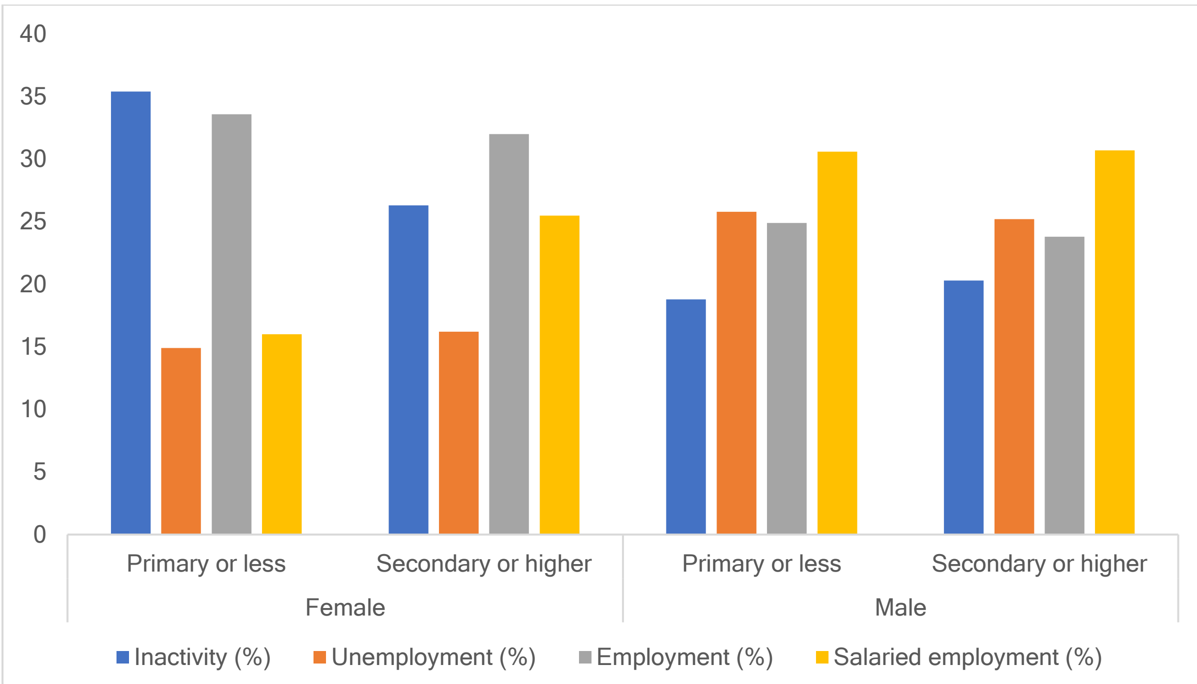



*Source: Statistical Institute of Jamaica, Labor Force Survey Data from 2011 to 2023.*

[7] Between ages 15 and 65.

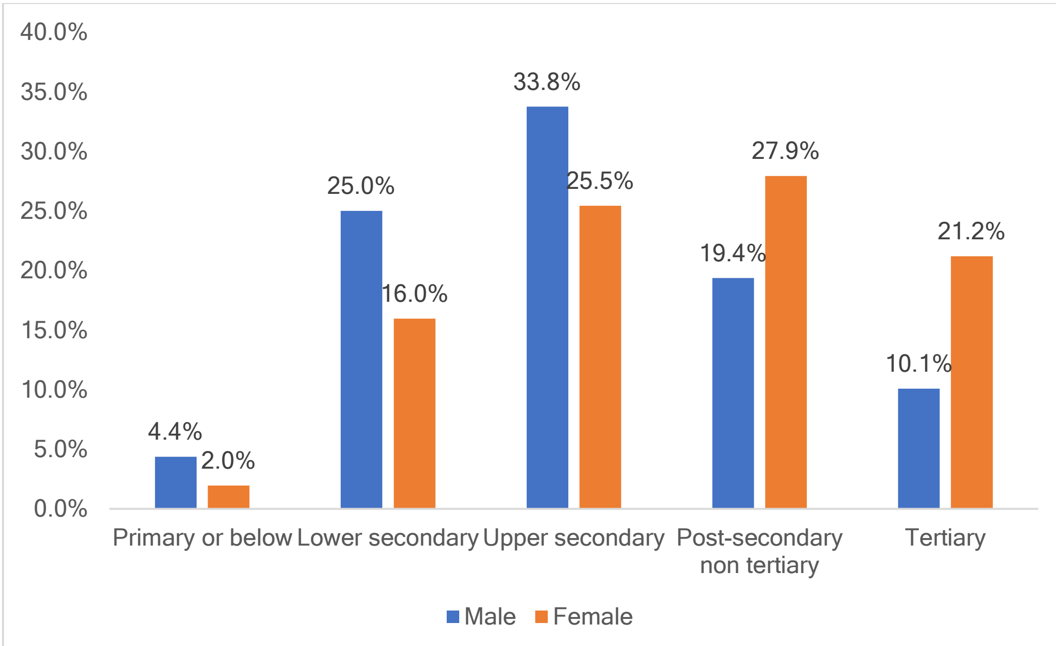
**Data on school-to-work transitions conducted among people aged 15 to 24 show that women are more likely not to enter the labor market compared to men**. Levels of inactivity tend to be high among women with higher levels of education, which could lead to a significant underutilization of human capital. Males, even with lower education, have a relatively high rate of salaried employment, suggesting that they may access more formal employment opportunities compared to their female counterparts (ILO, 2016; see Figure 10).

FIGURE 10. LABOR FORCE STATUS BY EDUCATIONAL ATTAINMENT AND SEX, 15-24-YEAR-OLDS NOT IN SCHOOL




*Source: ILO School-to-work transition survey (SWTS), 2016*

FIGURE 11. LABOR FORCE BY SEX AND EDUCATION




*Source: Education and Mismatch Indicators (EMI), ILOSTAT, 2022.*

**Women tend to have higher level of educational attainment**. About 21 percent of women in the labor force have a tertiary degree compared to 10.1 percent of men (Figure 11). Despite higher educational attainment, women are also much more likely to be unemployed and outside of the labor force (Statistical Institute of Jamaica, 2023). However, this difference has been declining. In 2011, the unemployment rate for women was 17.1 percent and for men it was 9.8 percent, while in April 2023 it was 5.7 percent for women and 3.4 percent for men. Closing the unemployment gender gap and facilitating women's inclusion in the labor market could help increase human capital in the employed population.

**Jamaica's economy has undergone a rapid transition to a service-based model, moving away from its former reliance on sectors such as agriculture, mining, and manufacturing**. This economic transition has been supported by the inflow of remittances that make up about a fifth of GDP. Tourism has become a crucial driver of the country's economic growth accounting for a large part of the jobs and over three quarters of GDP (IOM, 2018). The transition to a service-based economy has led increasingly high demand for skilled individuals not sufficiently present in the labor market (CAPRI, 2023). Men are much more likely than women to work in the primary and secondary sectors. Women on the other hand are more represented in the Arts, Entertainment, Recreation and Other Services, Accommodation and Food Service Activities as 84.8 percent of women chose to work there (Statistical Institute of Jamaica, 2023).

### TABLE 4. SECTOR OF OCCUPATION BY SEX

| Sectors | Total | Males | Females |
|---|---|---|---|
| Wholesale, Retail Trade, Repair of Vehicles | 18.3% | 15.3% | 21.8% |
| Agriculture, Forestry and Fishing | 13.5% | 18.7% | 7.5% |
| Real Estate and Other Business Services | 11.6% | 9.6% | 14.0% |
| Construction | 10.3% | 18.4% | 0.8% |
| Arts, Entertainment, and Recreation | 8.9% | 5.1% | 13.4% |
| Accommodation and Food Service | 8.7% | 5.7% | 12.3% |
| Education, Health and Social Work | 8.1% | 2.8% | 14.1% |
| Manufacturing | 6.2% | 8.1% | 4.0% |
| Public Administration and Social Security | 5.4% | 4.7% | 6.1% |
| Transport and Storage | 4.9% | 7.8% | 1.6% |
| Financial and Insurance Activities | 2.1% | 1.4% | 3.0% |
| Information and Communication | 1.1% | 1.1% | 1.0% |
| Electricity Gas and Water Supply | 0.6% | 0.8% | 0.3% |
| Mining and Quarrying | 0.2% | 0.4% | 0.0% |
| Industry Not Specified | 0.0% | 0.0% | 0.0% |

*Source: Statistical Institute of Jamaica, Labor Force Survey 2023*

**Despite a swift expansion in educational attainment in recent decades, Jamaica's labor force remains challenged by an insufficient level of education and skills.** This skills gap is exacerbated by emigration and inadequate levels of training. The combination of a low level of educational attainment and a low degree of training in the labor force in Jamaica suggests an overall low quality of human capital, which can negatively impact productivity and growth (Downes, 2010). Most job growth in recent years happened in semi-skilled occupations and the country is losing its skilled labor force to emigration (Brissett, 2017; CAPRI, 2023). Furthermore, Jamaica's high returns to education also point to a scarcity of high-skilled workers (CAPRI, 2023).

**A heightened demand for educated workers is evident in industry-specific wages**. Data from the World Bank's Enterprise Surveys further reveals that the percentage of firms offering formal training was significantly lower in Jamaica with respect to other LAC countries and the global average (25.9 percent versus 43.4 percent and 31.4 percent, respectively, World Bank Enterprise Surveys 2010). However, the percentage of firms identifying an inadequately educated workforce as a major constraint to their business was 19.9 percent, in line with the global average.

**Return migration can be a significant economic resource for Jamaica.** Return migration seems to be happening at a large scale in Jamaica (Jaupart, 2023) and has the potential to bring new skills and know-how gained while abroad, thus enhancing human capital in the labor market (Dustmann et al., 2011). According to the 2011 Census, returnees make up about five percent of the Jamaican population. They are predominantly male and half of them are over age 50. As a result, many are likely not to be active in the labor force. Throughout the 1990s many have returned from the UK (43.5 percent) followed by the US (38.4 percent) and Canada (6.1 percent) (IOM, 2018). In the last two decades, returns from the US increased making it country of last residence for the majority of migrants returning. Unfortunately, not much is known about the skills profiles of return migrants nor their occupations once back in Jamaica.

**Box 1: Health workers**

Health workers play a vital role in national health systems. However, Caribbean countries often feature low levels of health workers due to high rates of skilled emigration. The SDG indicator 3.c.1 aims to track the density and distribution of health workers globally, as well as the migration of health workers and potential brain drain. To this end, the World Health Organization (WHO) has developed the National Health Workforce Accounts (NHWA) platform, which gathers data on these issues from member states.

Nurse emigration has been a significant issue for Jamaica. WHO NHWA data reported that in 2017 there were about nine times as many Jamaican-born nurses in the US as there were in Jamaica (WHO, 2018). In Jamaica, there is 1 nurse per 1,000 people, well below the global average of 3.8 per 1,000. A study conducted in 2007 highlighted a very significant shortage in the nursing sector with an average vacancy rate of 42 percent (Salmon, Hewitt, and Guisinger, 2007).

There are also 0.6 physicians per 1,000 people, again well below the global average of 1.7 per 1,000 (WHO 2018). This figure has not improved significantly in recent years.

Analyses conducted by the Jamaican Ministry of Health and Wellness in 2017 highlights gaps in health staff across different specializations, in particular in emergency care, pediatrics and critical care (IOM, 2018). To fill some of the skills gaps, Jamaica has engaged in bilateral medical relationships with countries such as Cuba and Nigeria. For example, as of 2023, over 300 professionals under the Cuba Medical Brigade are in Jamaica, comprising of doctors, nurses, dentists, technologists and biomedical engineers currently serving in hospitals and clinics across Jamaica.

Better training, working, and economic conditions available abroad are key factors driving the emigration of health workers (PAHO, 2019). Analysis shows that significant differences between the conditions in their home countries and destination countries – such as the quality of healthcare, infrastructure, economic opportunities, and training availability – are the main reasons for this migration. These findings are consistent with the 2008 Jamaica Nurse Labor Survey, which also emphasized the importance of good educational opportunities for children as a significant factor influencing nurse migration (World Bank, 2009).

### Box 2: Education workers

In Jamaica, the pupil-teacher ratios are quite close to global averages, with primary schools having a ratio of 25 compared to the global average of 23.4, and secondary schools matching the global average at 17, as reported by the UNESCO Institute for Statistics in 2020. Despite these seemingly adequate ratios, the teaching profession in Jamaica is reported to be facing significant challenges due to high rates of skilled emigration (Brissett, 2018).

Skilled migration of teachers, particularly to English-speaking countries like the UK, the US, and Canada, is driven by factors such as better wages, working conditions, and the alignment of Jamaica's education system with those of these countries (Brissett, 2018; Sives, 2006). This migration trend has been reported by a large range of journalistic sources that highlight that Jamaican teachers are particularly sought after in the UK for their English proficiency and comparable training (e.g., New York Times, 2023; The Guardian, 2024).

The Jamaican Ministry of Education often references the abrupt departure of teachers from the public school system for jobs overseas, emphasizing the strain on Jamaica's education sector (Brissett, 2018). Furthermore, teachers are also listed as one of the most in-demand professions in Jamaica, which further underscores the critical nature of the migration issue (Ministry of Labour and Social Security, 2018).

The literature on this subject however is limited and existing research has generally focused on the methods of recruitment (Brissett, 2018). More in-depth studies would be needed to better estimate the magnitude of the issue and the consequences of emigration on the country’s educational quality.

# 6. General Policy Recommendations

Based on the main findings provided in the first five sections of this note, the following policy recommendations have been identified:

**More data on labor market needs and medical & education worker shortages.** Strengthening the capacity of the Statistical Institute of Jamaica to conduct more frequent and comprehensive labor market surveys that include data on industry-specific demand, skill gaps, and demographic breakdowns would help inform education and labor policymaking. Moreover, collaborating with educational institutions and healthcare facilities is crucial to establish a reporting mechanism that regularly assesses staffing needs and the availability of trained professionals in Jamaica. Lastly, designing and implementing policies within the legal framework and current capacities that allow for the collection of data by regulatory bodies and councils that can adequately track the rate of migration of high-skilled workers leaving the country and negatively impacting the labor market would help inform dynamic policymaking.

**Enhance education and training opportunities.** There is a significant need to invest in the expansion and improvement of post-secondary education opportunities. These interventions should focus on improving the relevance of post-secondary programs, aligning curricula to current and emerging market needs, particularly in digital skills, healthcare, and green technologies. Considering current labor market needs, STEM (Science, Technology, Engineering, and Mathematics) education at the secondary and tertiary levels as well as business management programs should be improved. In parallel to re-aligning curricula, developing public-private partnerships to support a more efficient funding of scholarships and apprenticeships in high-demand fields and reduce the financial burden on students and families is an option to consider. Scholarship programs should specifically target fields where there is a known shortage of skilled professionals, such as healthcare and education, to encourage students to remain in or return to Jamaica after their studies. Partnering with international universities is also important to offer joint degree programs that allow students to receive part of their education in Jamaica and part abroad, ensuring both local relevance and international exposure. International recognition of Jamaican educational credentials is also key to reduce the emigration of students and attract international students, particularly from the Caribbean and Central American region. This is especially important for healthcare studies and skill recognition.

**Design migration policies to attract more high-skilled workers.** Competitive tax incentives and residency options for high-skilled immigrants should be offered particularly in those sectors facing acute shortages such as healthcare and education. Moreover, establishing partnerships with countries that historically attract Jamaica's high-skilled workers would facilitate return migration programs that include skill and technology transfer components.

**Make the Jamaican labor market more attractive for healthcare workers and health support workers.** Working conditions for healthcare workers in Jamaica should be improved by increasing wages, providing more professional development opportunities, and improving workplace safety and support systems. It is important to design incentives for healthcare workers that move to rural areas. Moreover, implementing targeted recruitment campaigns that highlight the benefits of working in Jamaica – such as living in a culturally rich environment, lower cost of living, and proximity to family – would provide Jamaica healthcare support workers with more reasons to pursue a job in the country.  On the other hand, it is also essential to collaborate with international health organizations to ensure that qualifications and training received in Jamaica are recognized abroad, making it easier for those who wish to return after gaining experience overseas.

**Promote female inclusion in the labor market to fill skills gap.** The data indicate that despite higher educational attainment, women in Jamaica have lower labor market participation rates compared to men. To address this, policies should focus on implementing targeted job creation programs in sectors where women have higher educational qualifications to best harness the potential of their acquired skills and qualifications. Moreover, developing childcare support programs is essential to allow more women to enter and stay in the workforce. Lastly, encouraging private sector initiatives and incentives for companies that achieve gender parity in their hiring practices and providing career advancement opportunities for women would not only support higher female participation in the workforce, but also more female representation participation at managerial levels.

**Establishment of larger labor market free movement areas.** It is important to strengthen participation in and implementation of existing agreements within CARICOM for the free movement of skilled labor, ensuring that Jamaican professionals can access opportunities across the Caribbean without bureaucratic hurdles. Furthermore, a regional talent pool database that helps match the supply and demand of skills across neighboring countries – supported by digital platforms for easier access and management – should be developed.

# 7. Global Skills Partnerships

**Numerous policy options are available to nations grappling with the challenge of brain drain and, among these, GSPs are increasingly recognized as an innovative and effective tool**. GSPs do not operate in a vacuum and should be part of a holistic approach to skills development in Jamaica. By aligning GSPs with other national development strategies, Jamaica can create a robust framework that not only curtails brain drain but also contributes to the country's socioeconomic development through enhanced skills sharing and capacity building. This section examines the potential of GSPs to mitigate some of the adverse impacts caused by large-scale emigration of highly skilled professionals from Jamaica.

## 7.1. GSP Definition

**A GSP is a bilateral labor migration agreement between an origin country and a destination country**. As part of this arrangement, the origin country commits to training individuals in competencies that are both immediately and concurrently needed within its own borders and in the destination country. This initiative commonly comprises two distinct tracks: the "home" track, where some trainees remain within the origin country, thereby augmenting its human capital; the "away" track, where others relocate to the destination country (Adhikari et al., 2021).

**The destination country provides technological and financial support for the training programs, as well as broader systemic assistance**, ensuring that the migrant population arrives with highly relevant skills, thus maximizing their contribution and facilitating rapid integration. As defined by IOM (2023), these partnerships are characterized by five key elements: 1) Formalized cooperation between states; 2) Engagement of multiple stakeholders; 3) Targeted training programs; 4) Recognition of acquired skills; 5) Regulated migration processes. These components collectively enhance the efficacy and sustainability of the partnerships, aligning them closely with both countries' labor market demands and developmental strategies.

## 7.2. Why do GSPs matter for Jamaica?

**Addressing skills shortages is a top political priority in Jamaica, as defined by the Jamaica National Development Plan – Vision 2030 Jamaica.** The Plan mentions inadequate access to tertiary education and misalignment with labor market demand as key challenges to address. The labor shortage spans all skill levels and industries and is compounded by a scarcity of several specialized skills, ranging from traditional fields such as healthcare and education to information technology, foreign languages, managerial positions, and technical and mechanical skills (CAPRI, 2024). Overall, the Jamaican workforce has historically been characterized by a high incidence of workers with no training. In 1995, 80 percent of the labor force indicated that they had no training, while in 2008, the percentage was 72 percent, with an increase in the number of such workers from 919,950 in 1995 to 930,325 in 2008 (Downes, 2010). Concurrently, while 70 percent of the labor force remains untrained, the level of funding available is inadequate to finance the training required (Jamaica Vision 2030). This combination of low level of educational attainment and low degree of training of the labor force in Jamaica negatively affect human capital formation in the country, resulting in negative impacts on the level and growth of productivity.

**As in other Caribbean countries, sustained high-skilled migration rates have the potential to adversely impact the availability of skilled workers in Jamaica**. The human capital flight, estimated at over 80 percent in Jamaica (Thomas-Brown, 2023), can trigger a vicious cycle of low human capital leading to low productivity-low growth, followed by low employment generation. GSPs should be explored as a solution to reduce and even reverse brain drain from Jamaica due to new migration while preserving workers' mobility and providing needed skills at the destination. If the emigration of high-skilled migrants is better regulated under such programs, Jamaica can benefit not only by the remittances but also by increasing the number of high-skilled individuals staying in the country, enhancing human capital, and access to new knowledge and information which could also be used to further improve the most strategic sectors for local development.

## 7.3. Designing a Global Skills Partnership for Jamaica

### *7.3.1. Methodology*

**GSPs can assume a wide variety of forms and there no one-size-fits-all solution.** This section follows the methodological framework developed by the World Bank and the Center for Global Development (2021) to inform the potential design of a GSP between Jamaica and potential partner countries. The first step is to identify sectors that countries of origin and destination should focus on. Skill shortages, coupled with actual market demand are the first and most immediate elements that should drive the choice of suitable sectors in the country. The second step is choosing potential destination countries. The most important elements to consider are similar and concomitant labor shortages, existing foreign policy ties and cultural linkages. Following this structure, the section identifies sectors affected by labor shortages and skill mismatches in Jamaica, while matching local labor demands with similar labor shortages in potential destination countries.

### 7.3.2. *Potential Sectors*

**In Jamaica, there is a well-documented shortage of qualified workers in a vast array of sectors**. Inadequate numbers of workers are found in healthcare, education, information technology, foreign languages, tourism and technical and mechanical skills. Private firms also indicate a shortage of instructors and experienced workers who might serve as on-the-job trainers for less experienced workers. Overall, it is reported that professionals, technicians, and managers accounted for approximately 80 percent of vacancies in 2021 (CAPRI, 2024).

**Health**. Jamaica's shortage of doctors, nurses and allied health workers caused by sustained emigration flows has long been an unresolved national issue. While the majority of Caribbean nations experience migration of its nursing personnel, countries such as Jamaica experience much higher migration rates than other Caribbean countries (Sands et al., 2020). WHO NHWA data reported that in 2017 there were about nine times as many Jamaican-born nurses in the US as there were in Jamaica (WHO, 2018). According to the latest data available, In Jamaica, there is 1 nurse per 1,000 people, well below the global average of 3.8 per 1,000 people. Several studies confirm this is a long-term trend: each year, the country loses 8 percent of its registered nurses and 20 percent of its specialist nurses to high-income countries, most of them to the US and the UK (Wyss, 2012). It was estimated that two thirds of Jamaica's nurses have emigrated, causing a significant shortage in the nursing sector with an average vacancy rate of 42 percent (Salmon, Hewitt, and Guisinger 2007). There are also 0.6 physicians per 1,000 people, again well below the global average of 1.7 per 1,000 people (WHO, 2018). This figure has not improved significantly in recent years.

**Education**. Retaining and attracting high-quality teachers is a key priority outlined in Vision 2030 Jamaica. Between September 2019 and February 2020, 390 teachers resigned, leaving numerous schools without their full staff teaching faculty. This figure, predominantly made of high school teachers, represents 1.6 percent of the approximately 26,000 teachers in the system (Jamaica Information Service, 2020). In 2022, over 1,500 Jamaican teachers left their positions within the first nine months (Romero and Cegarra, 2023). The UK alone recruited 486 qualified Jamaican teachers in 2023 (twice as many as the previous year) as part of a movement driven by targeted recruitment efforts from the UK (Adams & Aguilar Garcia, 2024). This outflow of teachers has direct consequences on the education system as teaching is one of the most in-demand professions in Jamaica (Ministry of Labour and Social Security, 2018).

**Tourism**. Jamaica's tourism industry is the largest generator of foreign exchange, a major contributor to GDP and employment, and has been among the country's fastest-growing industries for several decades. Tourism directly employs 175,000 Jamaicans and generates indirect employment for another 354,000 Jamaicans (PIOJ, 2022). After being severely hit by the consequences of the COVID-19 pandemic, the tourism sector has proved resilient, but still struggles to find qualified workers for various roles at all levels, most of whom are attracted to higher paying positions in the Global Services (Business Process Outsourcing) Sector (CAPRI, 2024). This shortage of specialized workers in the tourism sector is a significant political priority for the government, as certified by the Minister of Tourism who recently affirmed that maintaining a sustainable supply of skilled labor is a major issue for the tourism industry of the country (Smith, 2023).

**Information Technology.** The scarcity of workers possessing advanced and highly specialized digital skills presents a significant challenge for Jamaica. This digital skills shortage is a widespread concern among employers and government officials in Jamaica, as it can hamper the sustained enhancement of digital transformation in both public services and private sector operations (UNDP, 2022). Recent data indicate that out of approximately 15,000 tertiary education graduates, merely 670, or 4 percent, demonstrated proficiency in computing (AVASANT, 2018). A prevalent complaint among employers is that graduates from tertiary institutions lack the necessary preparation for the workforce, while the graduates complain that the educational programs fail to equip them adequately for professional environments. While it is important to note that the ICT sector is currently among the smallest employment sectors in Jamaica (1.3 percent of the total workforce as of July 2022), it is the second-fastest growing (World Bank, 2024) and demand for high-level skills will grow. A 2021 skills demand study conducted by HEART/NSTA, utilizing employer surveys and interviews, identified digitalization, automation, and e-commerce as key factors driving the shift in skills demands. The COVID-19 pandemic has accelerated the need for such advanced and specialized skills, increasing demand for roles including data analysts, digital marketers, IT support technicians, developers, and professionals in database management, networking, and information security (MLSS, 2022).

**Other sectors - Agriculture and Construction.** Jamaica Vision 2030 considers a modern agricultural sector as an important priority, but also acknowledges significant shortcomings. The agricultural sector has exhibited persistently low productivity and has been vulnerable to increased competition resulting from progressive rounds of trade liberalization over the past two decades (Vision 2030 Jamaica). The Jamaican agricultural model should be organized on the basis of modern technology and improved management, which would pave the way to increased demand for high-skilled workers. On the other hand, the construction sector, together with the services sector, accounted for 73 percent of newly created jobs in the period 2015 – 2023. The construction sector is short of specialist workers trained in modern techniques like green architecture and precision welding (CAPRI, 2024). However, these sectors have less potential for high-skilled GSPs as most of the labor force employed in destination countries in the field of agriculture and construction have generally been lower-skilled, and there is lower demand for high skilled workers in these fields in destination countries compared to health, education and tourism.

### *7.3.3. Potential GSP Destination Partners*

**The top destination country for Jamaicans is the US, followed by the UK and Canada**. This is mainly due to proximity, a strong labor market, family reunification, and/or political and cultural ties with the destination countries. The generalized political interest in establishing regular pathways, coupled with similar labor and skills shortages in the same sectors, make these countries primary options for setting up a GSP with Jamaica.

#### 1. United States

**The US are by far the first destination country for Jamaica, with 70.8 percent of emigrants choosing the country in 2020** (see Chapter 3, figure 3). Jamaican migrants are already well employed in the US healthcare support system, constituting 9 percent of the total workforce in this sector.

**Healthcare**. While this kind of high-skilled emigration to the US is creating pressures and shortages in the Jamaican healthcare sector as shown in chapter 4, similar shortages are experienced in the US market. According to the Bureau of Labor Statistics, employment of registered nurses (RNs) in the US is projected to grow by nine percent from 2020 to 2030 (3,356,800 jobs), which is about as fast as the average for all occupations. An average of 194,500 openings for RNs are projected each year, on average, over the decade. Despite being the latest data from Bureau of Labor Statistics, these figures were calculated prior to COVID-19, and the true number of openings for RNs is likely significantly higher. Although enrollment in Bachelor of Science in Nursing (BSN) programs increased by 5.1 percent in 2019, there still are not enough nurses to meet the growing demand (CGD, 2022). Moreover, the US is projected to suffer from an estimated shortage of between 37,800 and 124,000 physicians by 2034, including shortfalls in both primary and specialty care (AAMC, 2021).

**Education**. Jamaican migrants are currently underrepresented compared to native born workers in education and the US is facing a shortage of teachers. Based on data from the last few years, most states have more vacant positions and/or more underqualified teachers in the classroom than in previous years. Nguyen et al. (2022) estimate there are at least 55,000 vacant positions and 270,000 underqualified positions in the US, accompanied by a decline or stagnation in enrollment for teacher certification programs for most states as well as a sharp increase in teachers leaving the profession in recent years compared to the last decade.

**Tourism**. The leisure and hospitality sector, which includes tourism-related jobs, has experienced some of the highest quit rates and has struggled to fill positions. The U.S. Chamber of Commerce reported that this sector continues to have high turnover, with the accommodation and food services subsector facing quit rates consistently above 4.5 percent since mid-2022. Despite high hiring rates, the number of vacancies remains significant (Ferguson and Hoover, 2024). Additionally, many hotel workers who were laid off during the pandemic found jobs in other industries with better benefits and more stable working conditions. This has made it challenging for the hospitality sector to recover its workforce fully and the industry is expected to struggle with staffing shortages until at least 2025 (Mann, 2023; EHL Insights, 2023) Programs like the H-2B visa are crucial in addressing these shortages by bringing in seasonal foreign workers to fill gaps in the tourism and hospitality sectors. These programs help alleviate some of the labor pressures but are not a complete solution to the widespread shortages experienced across the industry (Alliance Abroad, 2024).

**Information Technology**. The number of technology and science positions in the United States exceeded the supply of qualified workers by three million at the end of the last decade (Nicolaci Da Costa, 2019). Presently, 64 percent of US businesses report that a scarcity of skilled personnel hampers their adoption of new technologies and their capacity to enhance productivity (Gartner, 2021). Additionally, the prevalence of digital competencies among the U.S. workforce lags behind that of many other OECD nations, despite the growing demand for such skills in the job market. For instance, in 2016, 70 percent of jobs in the US required medium to high levels of digital skills, a significant increase from 44 percent in 2002. This situation has prompted the Information Technology and Innovation Foundation (ITIF) to advocate for heightened investments in digital skills development. The ITIF recommends expanding workforce training and increasing the number of computer science graduates to address this critical skills gap (Ezell, 2021).

## 2. Canada

**Healthcare**. A 2018 analysis predicted a shortage of 117,600 nurses in Canada by 2030 (Scheffler & Arnold, 2018). According to 2020 data, a third of RNs who provide direct care are 50 years old or older and nearing retirement (Registered Nurses' Association of Ontario, 2021). Statistics Canada estimates that 32,295 regulated nurse positions stand vacant, with nearly half (46.5 percent) of vacancies for RNs staying open for 90 days or more (Statistics Canada, 2021). This suggests that employers are having a hard time recruiting nurses, even as the demand for health services is increasing (Canadian Federation of Nurses Union, 2022).

**Education**. As the retirement rates have accelerated and the number of teachers graduating has declined since 2000, a series of research outputs have documented a shortage of teachers in Canada (Alberta Learning, 2003; BCPSEA, 2009; Nova Scotia Department of Education, 2007). Over the years, specialist teachers have been in high demand, but in short supply (Kitchenham and Chasteauneuf, 2010). After the COVID-19 pandemic, the teacher shortage has reportedly worsened and schools in Canada are resorting to negative coping mechanisms such as recruiting uncertified teachers. For example, provincial data from British Columbia show a nearly threefold increase in the number of letters authorizing individuals without certification to serve as educators since 2019: in 2023, 303 such letters were granted compared with 92 in 2019 (Kshatri, 2024).

**Tourism.** The Canadian Tourism Human Resource Council (CTHRC) estimates that, by 2030, tourism labor shortages could surpass a quarter of a million jobs, costing the sector $31.4 billion in foregone revenues and over $4 billion in taxes (TIAC, 2014). Notably, the Tourism Industry Association of Canada (TIAC) makes specific recommendations to Create a Tourism Stream for the temporary foreign worker program similar to the agricultural stream to reflect the seasonal and regional needs of the sector.

**Information Technology.** As of 2024, Canada needs to fill approximately 250,000 digital jobs by 2025 to meet its economic goals. This demand spans various sectors, including cleantech, health and biotech, advanced manufacturing, and interactive digital media (ICTC, 2021). Additionally, a survey found that 73 percent of data professionals believe the tech talent shortage will persist throughout 2024, largely driven by the accelerated adoption of data analytics and AI (Adastra, 2022). Specific areas such as cybersecurity are particularly affected. Reports indicate that one in six cybersecurity positions in Canada remain unfilled, highlighting a significant gap in this critical field. Factors contributing to this shortfall include burnout, competition from higher salaries and a reluctance among students to pursue cybersecurity education (Herron and Quan, 2022). Moreover, the skills mismatch in the Canadian labor market exacerbates the issue. Despite having a pool of ICT graduates and professionals, there are gaps between the skills possessed by job seekers and those demanded by employers. A poll conducted by KPMG revealed that 80 percent of the businesses surveyed need more workers with digital skills and two thirds of them are having trouble finding and hiring talents with the needed skills (KPMG, 2021).

## 3. United Kingdom

**Healthcare.** The Royal College of Nursing (RCN) highlights that the UK is facing record National Health System (NHS) nursing vacancies in a context of unprecedented demand (RCN, 2022). Nursing in social care is also in crisis, with increased workloads and almost 40 percent fewer nurses than 10 years ago (Skills for Care, 2021). Persistent and severe nursing workforce shortages have been exacerbated by government policies that have failed to address the crisis effectively. Recent estimates show that without additional policy intervention and workforce planning, the nursing workforce will grow more slowly than it is currently or will decline, with a projected supply-demand gap of 140,600 nurses in the NHS in England by 2030/31 (Health Foundation, 2022). Importantly, the NHS has officially recognized the importance of overseas international recruitment in the health care system. From April 2020 to March 2023 the number of people arriving in the UK and starting direct care roles in the adult social care independent sector rose from 10,000 to 70,000 (Skills Care, 2022). As highlighted by the Care Quality Commission (2023), it is vital to train internationally recruited staff and make sure they are fully integrated into the service and community.

**Education.** Teacher vacancies in England have nearly doubled since before the COVID-19 pandemic, with a staggering 93 percent increase in vacancies up to February 2023 compared to the same period the previous year (NFER, 2023). The Education Policy Institute (EPI) highlights that the number of teachers in state-funded schools has not kept pace with increasing pupil numbers, leading to higher pupil-to-teacher ratios and rising teacher vacancy rates. Postgraduate teacher training recruitment has also been below target, particularly for secondary school subjects (Education Policy Institute, 2020; Maisuria et al., 2023). Factors contributing to the teacher shortage include low salaries, challenging working conditions, high rates of retirement, and a decrease in the attractiveness of the teaching profession.

**Tourism.** A new analysis of staff shortages by the WTTC, has revealed a significant labor shortfall that could harm the sector's recovery, with 205,000 Travel & Tourism jobs across the UK estimated unfilled in 2021. Over the next few years, the labor market is expected to remain tight with a forecast shortage of tens of thousands of workers (WTTC, 2022).

**Information Technology.** The number of ICT professionals in the UK saw substantial growth, mirroring the rapid evolution of the sector and an increased reliance on digital technologies. Despite this expansion, the demand for skilled workers continues to exceed supply, with the lack of adequate skills representing a significant barrier. Projections suggest that by 2030, two-thirds of the UK workforce could be deficient in basic digital skills (McKinsey & Company, 2019). UK government statistics highlight the severity of this issue, noting that the percentage of "skills-shortage vacancies" – positions unfilled due to a lack of necessary skills, qualifications, or experience among applicants – in the information and communications sector rose from an already high 25 percent in 2017 to 43 percent in 2022 (UK Government, 2022). Additionally, it is reported that 31 percent of technology hiring managers identify the lack of skilled candidates available as their most significant hiring challenge (Morgan McKinley, 2024).

## 7.4. Policy Recommendations on GSP

### *7.4.1. Key Preconditions for a Successful GSP*

**A successful GSP requires a series of preliminary elements to ensure mutual benefits for both origin and destination countries**. Drawing on the GSP literature (Clemens and Gough, 2018; EMN and OECD, 2022; IOM, 2023) these general prerequisites are key to guaranteeing the success of a GSP pilot, whose specific components will be detailed in the following section.

**Establishing solid communication channels and constructive working relationships with partner countries in migration, labor mobility and relevant sector of the GSP is key**. This element is a crucial preliminary step to effectively negotiate a GSP and establish clear, formal agreements between the origin and destination. Early dialogue and systematic cooperation can lay the groundwork for the conclusion of specific agreements detailing the roles and responsibilities of each party, including the financial and technical support provided by the destination country for training in the origin country. Such a structured framework not only ensures accountability and clarity within the partnership but also reinforces the reliability of the cooperative efforts. Jamaica enjoys constructive cooperation with US, Canada and the UK in the field of migration management and labor mobility, positioning them as suitable partner countries to negotiate a GSP. On the other hand, facilitation remains needed and international organizations can play a significant role in steering targeted partnerships.

**A multi-stakeholder approach and the active involvement of the government, education institutions and private actors should be pursued right from the start to ensure consistency**. This includes support and coordination across the relevant ministries such as labor, education, immigration, and development. While a number of ministries are relevant and could be involved, there should be one “champion” ministry willing and able to take this forward. Additionally, engaging private sector employers and labor groups from both countries from the early stages of the GSP design ensures that the training meets specific job market needs and facilitates seamless integration of migrants. The Jamaica’s national development plan recognizes that a whole-of-society approach is key to address skills shortages, and both governmental and private actors should be involved in this endeavor.

**Labor market analysis and forecasting are indispensable tools for designing curricula that align with the current and future needs of both origin and destination countries**. In the context of rapidly changing market trends and technological advancements, effective labor market analysis provides critical data on the skills in demand, emerging sectors, and labor shortages, which is essential for developing educational programs that are directly relevant to market requirements. The Statistical Institute of Jamaica (STATIN) already plays a critical role in conducting labor market analyses. Concurrently, the Labor Market Information System (LMIS) managed by the Ministry of Labor and Social Security provides up-to-date labor market information and offer an overview of major market trends. These institutions' capacities may be leveraged and further strengthened within a GSP.

**Leveraging and strengthening existing training institutions in the origin country is critical**. These institutions can be public or private and should be involved from the outset to ensure that the training infrastructure is robust and sustainable. This also includes building local capacity through professional exchanges and capacity-building initiatives. Education is a key priority in Jamaica, and the country counts on a solid tertiary education system, with university institutions such as The University of the West Indies (UWI), the public University of Technology, Jamaica (UTech) and the Northern Caribbean University (NCU) playing a pivotal role. Furthermore, major TVET institutions such as the Human Employment and Resource Training Trust, National Training Agency (HEART Trust/NTA) deliver a large number of trainings each year (46,673 trainees in 2021-2022) and have great potential to be further strengthened and leveraged in the context of a GSP.

### *7.4.2. The GSP Design*

**Based on the current global experience, a pilot GSP model can be implemented at a small scale in the early phases, bringing around 100 trainees in the first cohort**. These programs are usually divided between a "home" track for trainees that would be employed in Jamaica, and an "away" track for those choosing to emigrate in the partner country. Smaller scale pilots are ideal so that assumptions inherent in the design can be tested and adapted. In the long run, given sustained demand for the identified categories of high-skilled workers (nurses and allied health workers teachers, IT specialists, and tourism professionals), there is potential to scale the project to thousands of trainees per year, perhaps even expanding opportunities to other Caribbean countries that show similar migration and labor market characteristics.

**In practice, the identified destination countries could invest in specific pilots in Jamaican industries where there is most potential to implement shared curricula development.** For instance, the UK could invest in training a group of RNs and older persons' care nurses in Jamaica, cooperating with local education and training institutions to align curricula. This step is particularly important, as training curricula should be jointly designed to address the precise skills shortages common in the two countries. In parallel, the two countries should explore the possible creation of dedicated visa pathways to ensure that some of the qualified graduates, those on the '"away" track, would be able to access opportunities in UK. Those on the "home" track would increase the low health worker density in Jamaica and contribute to improved health outcomes. Canada may use its cutting-edge experience in education to train Jamaican teachers and educational leaders in cutting-edge pedagogical techniques, leadership, and curriculum development. The dual track approach of the program allows educators to either apply their new skills in Jamaica to improve local educational outcomes or prepare for career opportunities in Canada through additional training in Canadian educational standards, cultural nuances, and language skills. The project may leverage Canadian private sector technological expertise and online learning platforms to deliver these trainings. The US may leverage its businesses expertise in the tourism sector to equip training participants with the necessary skills in sustainable tourism management, conservation, and hospitality, relevant to both Jamaica and US labor markets. Trainees on the "home" track will enhance local eco-tourism and conservation projects, while those on the "away" track will be prepared for opportunities within US eco-tourism industry. The collaboration will include support from US organizations in the form of expertise and advanced technologies for environmental management. Lastly, trainings in the ICT field could feature intensive modules on ICT specific skills, complemented by soft skills to manage clients and information on work and life in the destination country.

**A GSP should foresee and design suitable mobility pathways, and countries such as US, UK and Canada have existing visa schemes that could be leveraged in the context of a GSP**. As the immigration system in the US tends not to make visas available to address shortages in particular occupations, existing visa pathways such as the Exchange Visitor Program (EVP) and the H-2B visa could be used as a base to develop a GSP. Conversely, in the UK, ad hoc visas are available based on specific identified skills shortages, including nurses, teachers and tourism specialists, and could be leveraged in a potential GSP. In Canada a GSP could be accompanied by temporary work permits in relevant fields based on the model of the already established SAWP.

**In addition to offering guaranteed employment at the end of the training program, the GSP model could allow or require participants in the "away" track to return to their country of origin for periods of time, granting greater development returns.** However, this return component should be carefully designed and agreed between the two countries, as it might be incompatible with particularly severe skills shortages in one of the two. For instance, given the significant nurses shortage in the UK, the country may not agree to a return component of the away track. Moreover, return and reintegration might represent a whole new mobility and development component of the partnership, which would require additional planning.

### *7.4.3. Technical Sustainability*

#### General

**To ensure overall long-term sustainability, it is key that GSPs are consistent with the development strategy of the origin country, as well as the overall skills development system**. Ad hoc pilot projects should be accompanied by broader development projects to strengthen local skills development systems. This is fundamental to potentially institutionalize and scale up the GSP, as well as effectively developing the local labor market so that the acquired skills are employable locally. Concurrently, well designed GSPs programs for Jamaica would need to coordinate with ongoing skills development programs funded by the government and international development partners.

**The private sector should be involved in all stages of the design of training curricula**. A strong private sector engagement is not only needed to ensure that trainees have relevant and readily employable skillsets demanded by the market, but also to potentially bring more private investments into the GSP program. Involvement and financing of GSPs by private sector employers requires a positive cost-benefit calculation on their part, and they might be willing to invest more when they can be sure that trainings are relevant and effectively respond to their specific demands.

**For the trained individuals to be successfully employed in the destination country it is needed that the certification obtained is promptly convertible, recognized, and considered of sufficient high quality compared to people undergoing local training**. To this end, skill recognition and micro-credentials systems should be in place. These conditions are fundamental so that the partnership is actually advantageous and sustainable in the long term for both countries.

**A contingency plan should be included in the design of the GSP to identify potential challenges, address risks and mitigate adverse impacts**. Sustainable GSPs need to take into account potential risks and their impact on the effectiveness of the program, which may even result in early suspension or termination. For instance, there may be students in the “away” track who cannot or will not migrate and students in the “home” track who will attempt to migrate, jeopardizing the original design and overall sustainability of the program. In the case of Jamaica, the lessons learned from the discontinued training program for nurses to be employed in Canada highlights the importance of addressing unexpected circumstances. The program faced significant challenges, including the inability of students to complete required practical training and delays in job placements, resulting in only 30 out of 156 trainees departing to Canada (Clemens, 2015). By anticipating and keeping the program design flexible, a GSP can remain resilient and adaptable, ultimately leading to successful outcomes for both origin and destination countries.

**Developing a robust monitoring and evaluation (M&E) scheme is essential to assess the effectiveness of GSP programs**. An M&E framework allows stakeholders to systematically track the progress and outcomes of the program, ensuring that it meets its objectives and delivers value to both the source and destination countries. By collecting and analyzing data on various aspects of the program, such as trainee performance, employment outcomes, and stakeholder satisfaction, an M&E scheme provides insights into what works well and what needs improvement in order to react quickly. Furthermore, M&E facilitates transparency and accountability, ensuring that all stakeholders, including trainees, trainers, employers, and funding bodies, are informed about the program's progress and impact. This ongoing assessment builds trust among partners and provides a basis for scaling successful initiatives and replicating best practices in other contexts.

## Sector Specific

**Health**. ODA contributions should be channeled towards the strengthening of the overall health system of the country to enhance the quality of services delivered and working conditions. Concurrently, nursing training should be specifically designed to meet the needs of some specific categories requested in destination countries for which visas are promptly available and that are at the same time in strong need in the origin country. For instance, to match the current nursing specialization needs in Jamaica and available visas for nurses in the UK, it is suggested to look at specializations such as mental health, intensive care, and community care.

**Education**. One of the key challenges identified in the education sector in Jamaica is that teachers at the secondary and post-secondary levels lack the required skills to deliver the curriculum. This implies that GSPs should be accompanied by capacity-building initiatives to build local skills and enhance ownership in a longer-term perspective. Specific programs, targeted to high-demand sectors, should also be developed in partnership with Heart/NSTA. Concurrently, public-private partnerships are particularly important in this sector, as the education sector has been reported to be disconnected from the private sector (Vision 2030 Jamaica; CAPRI, 2024)

**Tourism**. The correct design of training curricula is particularly important in this specific sector, as they should focus on building skills for higher level positions rather than low-middle-skilled positions. Indeed, positions such as tourism manager, travel consultant, event planner are generally in higher demand in source markets; concurrently, these positions have a much higher potential to enforce a sustainable approach to eco-tourism (see further below: "Climate change and adaptation"), as they could actively design sustainable tourism activities, compared to those lower-skilled position that do not have an activity managing/designing role.

**Information Technology**. Trainings should focus on general features, as well as higher level skills in the specific sectors most demanded by the employers, such as cybersecurity, data science and analytics, and AI applications. Moreover, as the industry of ICT in countries such as the US, UK, and Canada has been traditionally dominated by the Indian and Chinese diasporas, it is fundamental that these trainings provide highly tailored education, providing Jamaican trainees in the "away" track with highly competitive profiles in the destination countries' job market.

## Mainstreaming and cross-cutting themes

To ensure technical sustainability in each sector, some important cross-cutting themes should be mainstreamed in all skills development activities.

**Digital Skills**. Digital skills are considered a priority in the Jamaica's development strategy. As the country is transitioning to the fourth industrial revolution, digital skills are increasingly demanded by private employers as a base skillset for a vast array of different positions (CAPRI, 2024). As a result, all activities should include specific trainings for strengthening digital competency of the trainees, making them flexible and ready to adapt to an increasingly digitalized working environment in all sectors.

**Gender dynamics.** In Jamaica, although women are generally more skilled than men, they are less employed and less remunerated at parity of education and role (see section 4). On the other hand, the rate of participation of women in tertiary education is considerably higher than men: approximately 66 percent who enrolled in 2007 were females compared to 34 percent males. At the premier local institution, UWI, the level of differentiation is more pronounced with over 70 percent females to less than 30 percent males (Vision 2030 Jamaica). Gender imbalances in trainings and employment have the potential to hinder the development potential of the country. For this reason, GSPs should be designed taking into consideration gender dynamics, favoring higher inclusion of women in the labor market, while promoting higher participation of men in high-skill trainings. While one phase of the pilot may focus on female trainees to directly test the effectiveness of improved skill sets on women's employment rates in Jamaica, another component may specifically address male labor force, favoring the acquisition of higher-level skills in sectors where male is underrepresented.

**Climate change and adaptation.** Jamaica is extremely prone to high risk of extreme weather events and rising sea levels. All training activities should take into consideration environment adaptation challenges. This is particularly relevant in the tourism sector, where trainees should be trained in sustainable and ecological tourism practices to better meet the demand of employers in destination countries, where environment sustainability is also a top priority for employers and environmentally aware customers.

#### 7.4.4. *Financial Sustainability*

**Besides being technically sustainable, a GSP needs to be financially sustainable**. Evidence shows that the collective investments loss for origin countries can be significant: a study by Mills et al. (2011) of nine sub-Saharan countries estimated that training doctors who are currently working abroad amounted to a loss of about US$2.17 billion. Such investment losses reflect into savings for the origin countries. It has been estimated that the total financial savings of recruiting doctors from abroad amounted to up to US$846 million for the US alone, effectively constituting a subsidy for wealthier countries' health systems (Mills et al., 2011). While GSPs can be financed in a number of ways, one of the guiding principles is that little to none of the financial burden should rest on the country of origin. This means that costs need to be borne by the country of destination itself, employers within the country of destination, and potentially also the trainees. Such a budget depends on the size of the GSP.

**The most diffused source of funding for GSPs pilot programs is ODA budgets**. To date, all pilots are being funded through ODA and multilateral organizations (CGD, 2022). OECD Development Assistance Committee (DAC) guidance in this space indicates that ODA may be spent on facilitating legal labor migration, as long as this ODA is spent in the country of origin (in this case Jamaica). Jamaica receives a significant amount of ODA from the three potential partner countries, with the following total envelope and focus sectors (OECD Creditor Reporting System, 2022):

TABLE 5. ODA TO JAMAICA

| Donor Country | ODA (US$ m/year) | Sectors |
|---|---|---|
| US | $35.420 | • Education policy and environmental education/training<br>• Multi-hazard response preparedness<br>• Social protection<br>• ICT<br>• Renewable Energy<br>• Human rights |
| Canada | $16.36 | • Education policy and vocational trainings<br>• environmental education and training<br>• agricultural development<br>• employment creation<br>• legal and judicial development<br>• women's rights<br>• democratic participation. |
| UK | $4.911 | • Higher education and training<br>• Democratic participation<br>• Human rights<br>• Anticorruption<br>• Security system management. |

*Source: OECD Creditor Reporting System, 2022.*

**International development partners with co-financing from the private sector could provide funding to cover the costs of a first GSP pilot.** Experience to date seems to suggest that there is rarely sufficient trust in these types of migration partnerships from the private sector, the country of origin, or migrants themselves to substantially cover the cost of implementation, at least in the pilot stage. In Jamaica, sustained financing is key as the majority of TVET programs are state funded and highly dependent on grants and loans from donor agencies. The impact of COVID-19 on government's revenue and its debt profile further worsened this dependence (UNDP, 2021). As a result, international development partners might step in to provide "seed funding" to cover the costs of the initial pilot through ODA resources. Co-financing from the private sector could also be leveraged to cover the costs of training under the "away" track. Operating such a cost-sharing structure would enable the pilot to scale and sustainably cover its costs, while protecting it from potential political backlash (CGD, 2022).

# 8. Conclusions

**High-skilled migration in Jamaica presents a complex interplay of challenges and opportunities that could significantly impact the country's socioeconomic development in the medium to long term**. The emigration of skilled professionals to richer countries like the US, Canada, and the UK depletes essential human capital in critical sectors such as healthcare and education and can slow economic growth by limiting the availability of skilled labor. On the other hand, it also has the potential to foster a more educated population motivated by the prospects of better opportunities abroad. Overall, the observed decrease in emigration rates of high-skilled Jamaicans in recent years is not accompanied by sufficient educational attainment after 2000, and the challenge of brain-drain remains significant, deserving careful policy consideration.

**Addressing skills mismatches and other issues associated with high-skilled migration requires evidence-based and data-driven policies in key sectors.** It is crucial to enhance data collection and analysis so that detailed labor market surveys and skill gap analyses can inform targeted policy interventions. Investments in education, particularly in STEM, healthcare, and green technologies, are essential. PPPs can help fund scholarships and apprenticeships, aligning educational outcomes with market demands. Additionally, migration policies should attract high-skilled workers to Jamaica through competitive incentives and programs that facilitate the return of Jamaican professionals abroad.

**While high-skilled migration poses significant challenges to Jamaica's development, it also offers opportunities for enhancing human capital and fostering economic growth**. By implementing strategic policies focused on education, gender equality, sustainability and international cooperation, Jamaica can effectively manage the complexities of high-skilled migration, turning potential brain drain into a source of brain gain and driving sustainable development.

**Within a systematic approach that includes targeted investments and reforms in the country's skills development system, GSPs emerge as a promising policy tool to combat brain drain and address skills mismatches**. By forming bilateral agreements with destination countries, Jamaica can create structured pathways that facilitate the migration of skilled workers, while enhancing local human capital. These partnerships involve targeted training programs that equip individuals with competencies needed both domestically and abroad. The dual-track approach allows some trainees to remain in Jamaica, augmenting the local workforce, while others migrate, fostering international cooperation and development. Implementing GSPs on a pilot basis can help test and refine the approach, eventually scaling up to benefit more trainees and sectors.

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