

Global Talent Mobility, Innovation and Growth

Case Study Brazil

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Focusing on the empirical case of Brazil, this profile examines the recruitment and retention of highly skilled professionals and international students in the case of Brazil. The aim of this study is to foster a deeper understanding of the role that policy programs and industry strategies play in attracting and retaining migrant professionals in STEM (Science, Technology, Engineering and Mathematics).

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Key messages

➤ **Brazil's innovativeness and competitiveness are hindered by a lack of STEM talent**

A shortage of skilled and educated individuals is compromising Brazil's innovativeness and competitiveness. Currently, the country is enjoying a 'demographic bonus': Mortality rates have been dropping at a faster pace than fertility rates, leaving Brazil with a relatively young and economically active population. In the medium term, the country should aim to benefit from this demographic window of opportunity by promoting stronger Science, Technology, Engineering and Mathematics (STEM) training to its nationals. However, in the short term, Brazil must design and adopt a strategy of global talent attraction to address existing talent gaps and increase its economy's innovativeness and competitiveness.

➤ **Most COVID-19-related restrictions have been lifted, but immigration is yet to recover**

The outbreak of COVID-19 has generated considerable impacts and losses in Brazil. As the country enters a recovery trajectory and most border restrictions are lifted, immigration numbers will start to rise again but are likely to still fall short from previous years. As many businesses and universities have temporarily moved their activities to virtual platforms in 2020 (a pattern expected to continue until the number of COVID-19 infections is controlled and an adequate share of the population is vaccinated), immigration numbers are expected to remain low.

➤ **The country needs to adopt a well-coordinated strategy for immigration. The upcoming 'National Policy on Migration, Asylum and Statelessness' should be accompanied by strategies to attract high skilled professionals.**

Unlike most other countries, Brazil's immigration affairs fall solely under federal jurisdiction. Despite having enacted a new immigration legal framework in 2017, Brazil still lacks a well-coordinated strategy to attract and retain global STEM talent. The 2017 Immigration Law calls for the creation of a 'National Policy on Migration, Asylum and Statelessness' (Article 120), however, this policy is yet to be finalized and little is known about its current stage and content. Ideally, this policy should incorporate a strategy for attracting high-skilled migrants and inputs from state-level representatives and employers. Moreover, Brazil's government also needs to liaise more closely with stakeholders experiencing talent shortages in order to develop and implement strategies that cater to their talent needs.

➤ **Recruitment of high-skilled immigrants from outside the Mercosur region needs to be simplified, and regulations regarding visas and work permits for foreign nationals with 'strategic professional capabilities' should be enhanced.**

Foreigners from outside the Mercosur region can only obtain a Brazilian work visa based on the invitation (and recruitment) from a Brazilian employer and a prior authorization granted by the Labour Ministry. In this respect, procedures for recruiting high-skilled immigrants from outside the Mercosur bloc are still relatively complex. This could be made easier through the regulation of certain mechanisms which were created in the 2017 Immigration Law and would allow for the enhanced and easier facilitation and approval of visas and work permits for individuals with 'strategic professional capabilities' without employer recruitment (Articles 38 and 147).

➤ **Brazil's higher education sector should be made more attractive for international students and foreign scholars**

Brazil should consider developing new initiatives to improve the attractiveness of its higher education sector for international students, scholars, and researchers, which are important assets for innovation. Universities should amplify the availability of programs and courses offered in English and Spanish (widely spoken in the region). At the graduate level, Brazil should increment existing policies for targeted attraction of visiting researchers and professors through more competitive grants and bursaries. Moreover, procedures for recognizing foreign credentials should be simplified and agreements for mutual recognition of foreign diplomas expanded.

➤ **Gaps in statistics on migration to be addressed, and Brazil's *DataMigra* project to be finalized**

Statistics related to several migrant groups (in particular international students, migrant workers from within the Mercosur region, permanent residents, naturalized Brazilians, and Brazilian returnees) are notably scarce. The government should work towards integrating different databases that compile data on immigration and making statistics on different migrant groups publicly available. Brazil's *DataMigra* project, which intends to create a web portal with all relevant statistics on immigration, should be finalized.

I. Economic situation and talent shortages

From 2003 to 2014, Brazil experienced considerable economic growth with an average real annual gross-domestic-product (GDP) increase of about 3.5 percent.¹ During this same period, per-capita incomes increased while public revenues also benefited from a rise in commodity prices.² This growth came to a halt in 2015 when the country's economy started to face a significant downturn due to a decline in the prices of some of its main exports, growing fiscal deficits, and a deteriorated political environment caused by the impeachment of President Dilma Rousseff.³ While in 2017, following the implementation of austerity measures, Brazil's GDP began to see modest growth again, this pace is likely to once again lose cadence with the outbreak of the COVID -19 pandemic and its aggressive effects already felt throughout 2020. In fact, between 2019 and 2020, Brazil's GDP dropped by 4.1%.⁴

Prior to the COVID-19 pandemic, Brazil was strongly dependent on its services sector, which accounted for 62.8% of all economic outputs in 2019.⁵ The second largest sector was industry and manufacturing (17.8% of GDP).⁶ A considerable share of this sector (nearly a quarter) was comprised by Brazil's automotive industry, which employs approximately 1.3 million individuals.⁷ During the 1950s, amidst a government-led push for industrialization, the country saw important institutional and technological developments aimed at restructuring the national industry.⁸ One of the most prominent results of this process was the creation of Embraer, today the world's third-largest commercial aircraft producer.⁹ However, in comparison to other emerging economies, Brazil currently has the lowest ratio of industrial manufacturing activity per GDP. In 2019, Brazil's exports reached \$225.3 billion, and manufactured goods only accounted for \$5.9 billion.¹⁰

¹ Instituto Brasileiro de Geografia e Estatística (IBGE) (2021), *Sistema de Contas Nacionais Trimestrais 2020*: Ministry of Economy (2020), *Informações Gerais*: <http://comexstat.mdic.gov.br/pt/comex-vis>; Faz Comex (2020), *Exportação no Brasil: Quais os principais produtos exportados?*: <https://www.fazcomex.com.br/blog/quais-principais-produtos-exportados-brasil/>

² Organization for Economic Co-Operation and Development (OECD) (2018), *Economic Surveys. Brazil*: https://issuu.com/oecd.publishing/docs/oecd_economic_survey_for_brazil_feb/4

³ Klafke, Renata & Lages, Alexandre (2017), "Why Has Brazil Stopped Growing? Reverberation about the Brazilian Crisis", *International Business Research* 10(10): 103-104.

⁴ Reuters (2021), *Brazil GDP drops 4.1% in 2020, COVID-19 surge erodes rebound*: <https://www.reuters.com/article/us-brazil-economy-gdp-idUSKBN2AV1FZ>

⁵ IBGE (2021).

⁶ IBGE (2021).

⁷ Ministry of Economy (2017), *Setor Automotivo*: <http://www.mdic.gov.br/index.php/competitividade-industrial/setor-automotivo>

⁸ United Nations Conference on Trade and Development (UNCTAD) (2002), *Transfer of Technology for Successful Integration into the Global Economy: A case study of Embraer in Brazil*: https://unctad.org/en/Docs/iteipcmisc20_en.pdf.

⁹ Bloomberg (2020), *Boeing's Other Headache Is Its Joint Venture With Embraer*:

<https://www.bloomberg.com/news/articles/2020-03-02/boeing-s-other-headache-is-its-joint-venture-with-embraer>

¹⁰ Ministry of Economy (2020), *Brasil: Informações Gerais*: <http://comexstat.mdic.gov.br/pt/comex-vis>; Faz Comex (2020), *Exportação no Brasil: Quais os principais produtos exportados?*: <https://www.fazcomex.com.br/blog/quais-principais-produtos-exportados-brasil/>

In order to successfully compete in the global knowledge-based economy, Brazil will have to boost its research and development (R&D) and innovation-oriented sectors. This need had already been identified with Brazil's Innovation Act of 2004. This piece of legislation allows innovation-strong companies to establish preferential partnerships with prestigious domestic universities and benefit from tax breaks.¹¹

According to the 2019 Global Competitiveness Report, the skillset of the Brazilian workforce placed comparatively low, ranking 96 amongst 141 countries. Moreover, the availability of scientists and engineers in the country was considered below the world average.¹² Since the late 1990s, Brazil has tried to address its skill shortages and enacted dedicated programs to facilitate access to higher education. As a result, the share of Brazilians with at least an undergraduate academic degree has increased considerably and almost doubled between 2008 and 2018.¹³ Brazil's students are, however, still in their majority undergraduate students. Only 0.8% of Brazilians hold a Masters' degree and even less (0.2%) a Ph.D.

In order to stimulate the mobility of STEM students, who constitute a small share among Brazilian students, and to scale-up research and innovation in the country, the Brazilian government carried out the 'Science without Borders' (SwB) program.¹⁴ This program which existed between 2011 and 2017 focused on sending Brazilian undergraduate and graduate students abroad while also attracting foreign researchers to work in domestic universities. In total, more than 104,000 scholarships were offered to Brazilians (mostly for undergraduate students) and approximately 4,000 research grants were given to foreign scholars.¹⁵ Since 2017, the government has been implementing the 'Institutional Internationalization Program' (IIP), which focuses on offering scholarships to Brazilians interested in conducting Ph.D. studies at foreign universities, and thereby fostering the internationalization of Brazilian research projects.¹⁶ So far, 36 Brazilian

¹¹ Presidência da República (2018), *Decreto 9.283/2018*; Ministry of Economy (2020), *Brasil: Informações Gerais*: <http://comexstat.mdic.gov.br/pt/comex-vis>; Faz Comex (2020), *Exportação no Brasil: Quais os principais produtos exportados?*: <https://www.fazcomex.com.br/blog/quais-principais-produtos-exportados-brasil/>

¹² World Economic Forum (WEF) (2019), *The Global Competitiveness Report 2019*: http://www3.weforum.org/docs/WEF_TheGlobalCompetitivenessReport2019.pdf, 112. Sociedade Brasileira para o Progresso da Ciência (SBPC) (2017), *O fim do Ciência sem Fronteiras depois de R\$ 13 bilhões investidos em bolsas no exterior*: <http://portal.sbpcnet.org.br/noticias/o-fim-do-ciencia-sem-fronteiras-depois-de-r-13-bilhoes-investidos-em-bolsas-no-exterior/>
World Bank (2018), *Availability of scientists and engineers*: https://todata360.worldbank.org/indicators/h7c08e10f?country=BRA&indicador=608&viz=line_chart&years=2007,2017

¹³ Ferreira, Paula (2019), *Com universidades em colapso, Brasil tem uma das menores taxas de pessoas com ensino superior no mundo*, <https://oglobo.globo.com/sociedade/educacao/com-universidades-em-colapso-brasil-tem-uma-das-menores-taxas-de-pessoas-com-ensino-superior-no-mundo-23936365>

¹⁴ Sá, Creso (2016), "The Rise and Fall of Brazil's Science Without Borders", *International Higher Education* 85: 17-18. Saenge, Emília & Teixeira, Maria (2018), "A internacionalização por meio da bolsa de Pesquisador Visitante Especial do Programa Ciência sem Fronteiras do CNPq", *Ensaio* 26(100): 849-852.

¹⁵ SBPC (2017).

¹⁶ Ministry of Education (2017), *Programa Institucional de Internacionalização*: https://www.capes.gov.br/images/novo_portal/editais/editais/23082019_Edital_1045323_Edital_41.2017_Print.pdf, 1-14.

universities have received funds to send their students abroad under this program.¹⁷ Similar to the previous SwB program, this new initiative focuses on STEM students and also aims to attract renowned scholars to the country.¹⁸

During the last twenty years, Brazil's public and private investments in R&D initiatives have ranged from 0.9 to 1.3% of GDP, a bigger ratio than in other emerging countries, such as Russia, India or South Africa.¹⁹ Nevertheless, Brazil's R&D spending is still far below the average of more developed economies (e.g., OECD countries, which had an average of 2.4% in 2019). Moreover, while the private sector still plays a limited role in R&D investments in Brazil (approx. 40 percent), in countries like Japan and South Korea private funding accounts for approximately 75% of all investments.²⁰ Indeed, in 2017, Brazilian companies, on average, were investing less than 1% of their revenues in R&D.²¹ Due to the 2015-2016 economic crisis, Brazil's national government has decided to limit its expenditures in all sectors of the economy until 2036.²² This decision is already affecting relevant entities, including Brazil's Ministry of Science, Technology, Innovations and Communications (MCTIC), and in consequence R&D-related industry subventions and programs.²³

Brazil's Main Innovation Clusters

Brazil's South-East region, centred around Sao Paulo, is particularly strong with respect to its innovation and technology sectors. It hosts Latin America's largest start-up ecosystem and leading metropolitan areas in terms of technological capacity and innovation in the country. *Sao Paulo* is South America's largest city in terms of geographical size, population, and economic output. Known as Brazil's 'buzz city,' it hosts most

¹⁷ Agência Brasil (2020), *Capas busca maior qualidade em programas de intercâmbio*, <https://agenciabrasil.abc.com.br/educacao/noticia/2020-01/capas-busca-maior-qualidade-em-programas-de-intercambio>

¹⁸ Ministry of Education (2017).

¹⁹ Ministry of Science, Technology, Innovations and Communications (MCTIC) (2020), *Recursos Aplicados. Indicadores Consolidados*:

https://www.mctic.gov.br/mctic/opencms/indicadores/detalhe/recursos_aplicados/indicadores_consolidados/2_1_3.html; OECD (2020), *Gross domestic spending on R&D*: <https://data.oecd.org/rd/gross-domestic-spending-on-r-d.htm>; World Bank (2020),

Research and development expenditure (% of GDP): <https://data.worldbank.org/indicator/GB.XPD.RSDV.GD.ZS?locations=IN>

²⁰ Inter-American Development Bank (IDB) (2019), *BID apresenta recomendações para a retomada da produtividade no Brasil em novo estudo*:

[https://publications.iadb.org/publications/portuguese/document/Produtividade sem obstáculos Propostas para retomar o crescimento do Brasil pt.pdf](https://publications.iadb.org/publications/portuguese/document/Produtividade%20sem%20obst%C3%A1culos%20Propostas%20para%20retomar%20o%20crescimento%20do%20Brasil%20pt.pdf), 52.

²¹ IBGE (2020), *Pintec 2017: caem a taxa de inovação, os investimentos em atividades inovativas e os incentivos do governo*:

<https://agenciadenoticias.ibge.gov.br/agencia-sala-de-imprensa/2013-agencia-de-noticias/releases/27465-pintec-2017-caem-a-taxa-de-inovacao-os-investimentos-em-atividades-inovativas-e-os-incentivos-do-governo>

²² Via the Constitutional Amendment n°95/2016: See Planalto (2016), *Emenda Constitucional n° 95, de 15 de dezembro de 2016*:

http://www.planalto.gov.br/ccivil_03/constituicao/Emendas/Emc/emc95.htm

²³ Andrade, Rodrigo (2019), "Brazil's budget cuts threaten more than 80,000 science scholarships", *Nature* 572: 575.

corporate headquarters in Brazil and is considered an innovation powerhouse. Besides hosting several foreign innovative multinational enterprises (such as Google, IBM, Siemens, etc.), the city also attracts over 60% of all start-up investments in the country and is home to more than 2,600 local venture capital companies working on tech-based products and services.²⁴ ACE, a local business accelerator, has been ranked the best accelerator in Latin America three times and has already supported 300 start-ups launched in Sao Paulo.²⁵ Google, Samsung, and IBM also created their own centers to support start-ups in the city.²⁶

Campinas, a few miles from Sao Paulo, is another start-up and innovation hotspot in Brazil. In 2019, Campinas hosted its first Innovation Festival and managed to attract many important new investors.²⁷ A year later, in 2020, the city established a partnership with the Inter-American Development Bank (IDB) to build the International Hub for Sustainable Development – an 11 million square meter area reserved for the development of innovative projects in line with the 2030 UN Sustainable Development Goals.²⁸

Sao Pedro Valley, located in the state of Minas Gerais, attracted strong attention in 2005 when Google bought Akwan, a local search-engine company. Sao Pedro Valley now hosts Google's first engineering center in Latin America and more than 300 other startup companies. The region also hosts several biotech companies, including Biominas, a leading incubator of biotech startups.²⁹ Due to the region's rapid growth, in 2015, the Minas Gerais government launched the SEED (Startups and Entrepreneurship Ecosystem Development) project, the only publicly funded business accelerator in the country.³⁰

Talent shortages

In Brazil, prior to the COVID-19 outbreak, skill shortages were one of the main short- and long-term obstacles to economic growth.³¹ According to a survey by the Brazilian National Industry Confederation

²⁴ Mari, Angélica (2019), *São Paulo: The Brazilian Innovation Ecosystem Is Ready For Business*: <https://www.forbes.com/sites/angelicamarideoliveira/2019/03/29/sao-paulo-the-brazilian-innovation-ecosystem-is-ready-for-business/#7a49090610f9>

²⁵ Salomão, Karin (2019), *Por dentro da ACE, uma das maiores aceleradoras da América Latina*: <https://exame.abril.com.br/negocios/por-dentro-da-ace-uma-das-maiores-aceleradoras-da-america-latina/>

²⁶ Google: *Google for Startups: São Paulo*: <https://www.campus.co/sao-paulo/>. Samsung: *Samsung Ocean amplia atuação com novo espaço de inovação em São Paulo*: <https://news.samsung.com/br/samsung-ocean-amplia-atuacao-com-novo-espaco-de-inovacao-em-sao-paulo>. IBM: *Visit the IBM Garage in São Paulo*: <https://www.ibm.com/cloud/blog/visit-the-ibm-garage-in-sao-paulo>

²⁷ Região Campinas (2020), *Alta Produção Científica e Tecnológica*: <http://regiaocampinas.org.br>. Campinas Innovation Festival (2019), *Campinas Innovation Festival*: <http://campinasfestival.org.br>

²⁸ IDB (2020), *BID, Unicamp e Prefeitura de Campinas firmam parceria para criar hub de desenvolvimento*: <https://www.iadb.org/pt/noticias/bid-unicamp-e-prefeitura-de-campinas-firmam-parceria-para-criar-hub-de-desenvolvimento>

²⁹ Amaro, Mariana (2014), *Conhece o São Pedro Valley, em Belo Horizonte?*: <https://exame.abril.com.br/carreira/conhece-o-bairro-de-sao-pedro/>

³⁰ Melo, Gustavo et al. (2017), “Comparative Analysis of German and Brazilian Innovation System to Improve Binational Cooperation”, *Proceedings of the 12th European Conference on Innovation and Entrepreneurship*: 430-441.

³¹ Reis, Cícero & Noronha, Nelson (2014), “Mão de obra qualificada – gargalo produtivo”, *RELEM – Revista Eletrônica Mutações* 5(9): 28.

(CNI)³², in 2019, half of all companies in the country reported issues linked to talent shortages.³³ 91 percent of all companies reported lacking qualified personnel to conduct R&D activities.³⁴ Moreover, 90 percent reported lacking qualified technicians and 87 percent reported lacking engineers.³⁵ Another major gap affects the IT sector; while 70,000 new IT positions are created every year, only 46,000 students are graduating on average annually from IT-related programs.³⁶ According to the CNI, 53% of industrial leaders think the lack of skills is related to the Brazilian school system and its incapacity to prepare students to enter the labour market.³⁷ The Confederation pointed out that the majority of industries (85 percent) experiencing talent shortages offered training to their personnel as means of improving their skills, while only 1 percent attempted to hire foreign professionals to fill skill gaps.³⁸

Similar to leading economies in the Global North, Brazil is transitioning into a knowledge-based economy.³⁹ In addition to more substantial public and private investments in R&D and innovation, Brazil also needs to address its talent shortage. Currently, Brazil still enjoys a favourable demographic situation with a relatively young and employable population. Now would be the moment to launch and promote more strongly STEM-related skills training for young Brazilians. However, in the short term, Brazil will also have to address its imminent talent shortage in order to induce and keep economic growth. As a solution, Brazil should reconsider its immigration policies, while instituting programs to attract and retain global talent.

³² Founded in 1938, the Confederação Nacional da Indústria (CNI) congregates 27 state federations of industry and is the most prominent representative body of the Brazilian industry.

³³ Confederação Nacional da Indústria (CNI) (2020), *Falta de Trabalho Qualificado*: https://bucket-gw-cni-static-cms-s3.amazonaws.com/media/filer_public/53/fc/53fc7968-f778-4153-a771-6305d46edaab/sondespecial_faltadetrabalhadorqualificado.pdf, 7. The survey analyzed a sample of 1,946 companies

³⁴ CNI (2020), 9.

³⁵ CNI (2020), 9.

³⁶ Brasscom (2019), *Relatório Setorial de TIC 2018*: <https://brasscom.org.br/relatorio-setorial-de-tic-2018/>

³⁷ CNI (2020), 12.

³⁸ CNI (2020), 11.

³⁹ Moreiceiro, César & Guilhoto, Joaquim (2019), *Desindustrialização Setorial e Estagnação de Longo Prazo da Manufatura Brasileira*: http://www.usp.br/nereus/wp-content/uploads/TD_Nereus_01_2019.pdf

II. Global talent recruitment and retention

Recent trends in immigration to Brazil

Available statistics show that, when compared to other countries, Brazil has a relatively small number of immigrants; in 2019 there were 1.2 million foreign nationals living in Brazil, equalling only 0.5% of the country's total population.⁴⁰ In 2019, the main immigrant groups newly arriving in the country included Venezuelans (89,800), Haitians (19,800) Colombians (9,370), Bolivians (9,400), and Argentinians (5,700).⁴¹ In this same year, 153,900 migrants arrived in the country with temporary residence permits (a 87% increase in relation to 2018), while 21,900 received permanent residence status.⁴² COVID-19-related mobility restrictions and the severe COVID-19 outbreaks in Brazil certainly had a significant impact on international migration flows to Brazil.⁴³ The number of permanent residence permits newly emitted during the first months of 2020 was about 75% lower than in the same months in 2019, also the number of temporary permits decreased by 40.5%.⁴⁴ Nonetheless, numbers have been slowly increasing since June, showing a certain normalization of Brazil's migration situation. However, detailed statistical information on immigration trends in 2020 are yet to be published.

Before the onset of the pandemic, most Latin American immigrants occupied minimum wage and lower-skilled jobs in Brazil, working mostly in so-called 'blue collar jobs' (e.g., factory line workers, construction workers, janitors, butchers).⁴⁵ Mercosur⁴⁶ nationals have been dominating immigration to Brazil in recent years. Mercosur nationals can benefit from the bloc's 'Residence Agreement' (2009) which allows citizens

⁴⁰ Polícia Federal (2019), *Apresentação Agosto 2019*: http://www.pf.gov.br/servicos-pf/imigracao/Apresentacao_agosto_2019.pdf/view; Agência Brasil (2019), *Estimativa da população do Brasil passa de 210 milhões, diz IBGE*: <https://agenciabrasil.ebc.com.br/economia/noticia/2019-08/estimativa-da-populacao-do-brasil-passa-de-210-milhoes-diz-ibge>; Simões et al. (2019), *Relatório RAIS*: https://portaldeimigracao.mj.gov.br/images/dados/relatorios_RAIS/Relatório_RAIS.pdf

⁴¹ Data encompasses immigrants holding residence permits and does not include asylum-seekers: Ministério da Justiça (2020), *Relatório Anual Tabulado 2018 / 2019*: <https://portaldeimigracao.mj.gov.br/images/relatorio-anual/RELATÓRIO%20ANUAL%20OBMigra%202019.pdf>. In 2019, total numbers of work permits issued to foreigners, according to their nationality, were: Venezuelans (30,260), Haitians (18,670), Cubans (4,025), Argentinians (1,700), Colombians (1,510), others (10,200): Ministério da Justiça (2020). Notably, in 2018, 80,000 asylum claims were made in Brazil. The vast majority (61,600) were submitted by Venezuelans: UNHCR (2020), *Refugee Data Finder*: <https://www.unhcr.org/refugee-statistics/download?url=g5IU>

⁴² OBMigra (2019), *Relatórios Mensais*: <https://portaldeimigracao.mj.gov.br/pt/dados/relatorios-mensais>

⁴³ Leão, Augusto Veloso (2020), "Políticas de imigração no contexto da pandemia de Covid-19", in: Fernandes, Duval & Baeninger, Rosana (2020) (eds.), *Impactos da Pandemia de Covid-19 nas Migrações Internacionais no Brasil. Resultados de Pesquisa*, Nepo/Unicamp: Campinas, 24.

⁴⁴ Data corresponds to the period of January-August 2019 and 2020. For the 2019 period, the overall number of permanent residence (PR) permits was 25,067 and the number of temporary ones reached 88,405. For the same months during 2020, the number of PR permits was 6,287 and the number of temporary ones 52,539: OBMigra (2020).

⁴⁵ Ministério da Justiça (2020).

⁴⁶ Currently, the Mercosur bloc is formed by five member states (Argentina, Brazil, Paraguay, and Uruguay) and seven associated states (Suriname, Guyana, Colombia, Ecuador, Peru, Chile and Bolivia).

of other Mercosur nations to move and take up employment in Brazil.⁴⁷ Starting in the 2010s, Brazil had also opened special visa programs and started to offer residence permits to Haitians and Venezuelans, which further increased Latin American immigration to Brazil.⁴⁸

However, likely due to Brazil's colonial past, Portuguese citizens have continued to be the most prominent group of immigrants in terms of residence permits issued and renewed in recent years (188,000 in 2019).⁴⁹ Most Portuguese coming to Brazil on work visas tend to be involved with short-term technology transfer or technical assistance projects.⁵⁰ Until the late 2000s, immigration towards Brazil had originated primarily from the Global North.⁵¹ This changed with the enactment of the mentioned 'Residence Agreement' when arrivals from individuals from neighbouring countries (in particular Haiti, Bolivia, and Venezuela) increased and immigration patterns shifted.⁵² In tandem, while the overall number of immigrants increased during the last decade, the ratio of individuals coming from North America and Europe decreased considerably and was replaced for a less skilled cadre of immigrants.⁵³ In that, the ratio of migrant workers holding an academic degree in Brazil has more than halved – from approximately 57% in 2010 to about 28% in 2018.⁵⁴ As a result of now a predominantly low-skilled and unskilled migration, the share of migrant workers working in Brazil's STEM sector dropped significantly, from 29% (in 2010) to only 14%.

In 2018 and 2019, just prior to the outbreak of the global COVID-19 pandemic, Brazil's immigration from outside the Mercosur region was relatively stable, at around 32,000 annually.⁵⁵ Approximately two-thirds of all new non-Mercosur immigrants in 2018 and 2019 held at least one academic degree (*see figure 1*).

⁴⁷ While the agreement was signed by the Brazilian government and other Mercosur states in 2002, it was only ratified in 2009, the same year which it came into force: Mercosur (2002), *Agreement on Residence for Mercosur Member States' Nationals*: https://www.researchgate.net/publication/332370593_MERCOSUR_Residence_Agreement_Unofficial_English_Translation

⁴⁸ Salles, Denise et al. (2019), "Humanitarian migration with law 13.445/17: towards a dignity treatment of the forced migrant in Brazil", *Revista Conhecimento e Diversidade* 11(33): 137-139.

⁴⁹ Portuguese migration towards Brazil dates back to the first years of the country colonization process in the 16th Century. However, the immigration of Portuguese citizens to Brazil became more expressive during the 20th century, achieving annual rates of 23,000-25,000 Portuguese immigrants during 1901-1930 and 1951-1960. In recent years, new Portuguese immigrants are the 5th largest group of highly qualified immigrants in Brazil: Cavalcanti, Leonardo et al. (2019), *Relatório Anual*, <https://portaldeimigracao.mj.gov.br/images/relatorio-anual/RELATÓRIO%20ANUAL%20OBMigra%202019.pdf>; IBGE 2000. *Brasil: 500 anos de povoamento*, Rio de Janeiro: IBGE, 66. Following Portuguese citizens, other prominent immigrant groups with active residence permits in Brazil were: Haitians (114,500), Bolivians (104,650), Venezuelans (97,200), Argentinians (60,800), and Japanese (60,790): Polícia Federal (2019).

⁵⁰ Domeniconi, Joice & Baeninger, Rosana (2018), *A dinâmica da migração internacional portuguesa para o Brasil no século XXI: uma análise a partir do perfil dos imigrantes portugueses no mercado de trabalho formal*, *Cadernos de Estudos Sociais* 33(2): 23.

⁵¹ Cavalcanti et al. (2019), 41.

⁵² Cavalcanti, Leonardo et al. (2015), *Relatório Anual 2015: A inserção dos imigrantes no mercado de trabalho brasileiro*: https://portaldeimigracao.mj.gov.br/images/dados_anuais/relatorio_OBMIGRA_2015_final.pdf

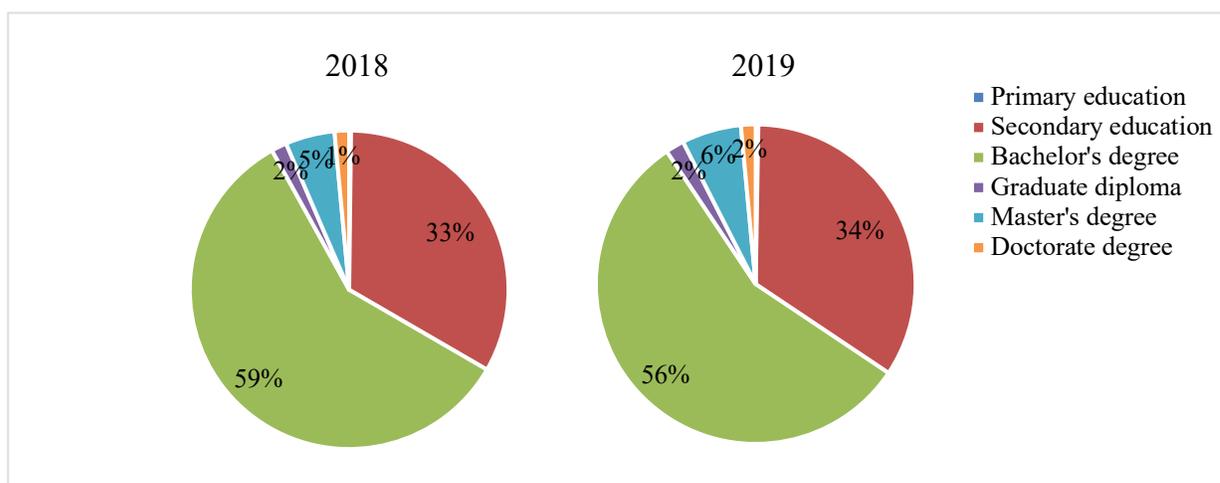
⁵³ Cavalcanti et al. (2019), 7-8.

⁵⁴ Simões, André et al. (2019), *Relatório RAIS*: https://portaldeimigracao.mj.gov.br/images/dados/relatorios_RAIS/Relatório_RAIS.pdf

⁵⁵ Cavalcanti, Leonardo et al. (2019), *Autorizações de residência concedidas a imigrantes. Relatório 4º Trimestre (out-dez) 2019*: https://portaldeimigracao.mj.gov.br/images/dados/relatorio_trimestral/4TRICGIL.pdf

Most of them were technicians or engineers, professionals in arts and sciences, skilled industrial workers or managers. In 2019, top sending countries from outside the Mercosur region included the United States of America (U.S.) (3,330), Philippines (2,910), China (2,820), India (2,330), Italy (1,690), Germany (1,640), Japan (1,620), the UK (1,540), France (1,250), and South Korea (890).⁵⁶ Notably, in 2018 and 2019, more than 75% of these immigrants from outside the Mercosur region went to only two states in Brazil: Rio de Janeiro and São Paulo, regions that serve as hotspots for innovation in the country.⁵⁷

Figure 1. Migrant workers from outside the Mercosur region, according to educational level (2018 and 2019)⁵⁸



Source: Own representation, based on Cavalcanti et al. 2019

International student mobility to Brazil

Even though Brazil has prestigious public universities, which are known for having a strong role in its innovation ecosystem and are free of cost to students (including foreigners), the country is not a major destination for international students.⁵⁹ In 2018, of the approximately 12 million students enrolled in undergraduate programs at Brazilian universities only 0.1% were international students.⁶⁰ Since then, Brazil

⁵⁶ Cavalcanti, Leonardo et al. (2019), *Autorizações de residência concedidas a imigrantes (out-dez) 2019*: https://portaldeimigracao.mj.gov.br/images/dados/relatorio_trimestral/4TRICGIL.pdf

⁵⁷ Cavalcanti et al. (2019), 17.

⁵⁸ Cavalcanti et al. (2019), 19.

⁵⁹ Suzigan, Wilson & Albuquerque, Eduardo da Motta (2011), "The underestimated role of universities for the Brazilian system of innovation", *Brazilian Journal of Political Economy* 30(1): 4; Mello, José Manoel Carvalho et al. (2011), "Brazilian Universities and Their Contribution to Innovation and Development", in: Göransson Bo & Brundenius, Claas (eds.), *Universities in Transition. Insight and Innovation in International Development*, Springer: New York, p. 54; World Education Services (2019), *Education in Brazil*: <https://wenr.wes.org/2019/11/education-in-brazil>

⁶⁰ INEP (National Institute for Educational Studies and Research 'Anísio Teixeira') (2019), *Sinopses Estatísticas da Educação Superior – Graduação*: <http://portal.inep.gov.br/web/guest/sinopses-estatisticas-da-educacao-superior>

has not witnessed any significant increase either. As a baseline, in 2009, the number of international students in Brazil had stood at 16,000.⁶¹ This means that Brazil is not very attractive to international students and has also been unable to expand its international student enrolment. Of the approximately 23,000 international students that studied in Brazil in 2018, the most significant groups came from Angola (1,818), Japan (1,260), Paraguay (1,174), Guinea-Bissau (1,117), Bolivia (984), and Argentina (901).⁶² It is, however, worth highlighting that despite the very low numbers for each nationality, the international student population is highly diverse. These actual numbers are most likely reflective of the internationalization efforts directed at Global South countries and specific ties of a low number of Brazilian universities to specific international partner universities and countries. Additionally, another 'pull' factor is likely the fact that special links exist between certain countries, for example between Japan and Brazil, due to the settled Japanese diaspora in Brazil and the specific development support target that Japan has therefore set on Brazil.⁶³

In 2018, most foreign students in Brazil were enrolled in universities in Sao Paulo, which is also the state concentrating the largest number of higher education institutions in the country.⁶⁴ There is currently no systematic data available that informs in which programs international students are predominantly enrolled in. As it will be further explored, while international students have been a prominent group amongst foreigners naturalized as Brazilians in recent years, due to a general lack of data and an absence of systematic reporting, there is no evidence that would support that international students could be seen as a potential or actual major workforce group in Brazil's innovation and STEM sector.

Return migration to Brazil

Brazil's latest census conducted in 2010⁶⁵ highlighted that, during the early 2010s, the improvement in Brazil's economy and labour market was a positive force in encouraging a significant number of Brazilian nationals to return to Brazil.⁶⁶ In that, between 2005 and 2010, 174,600 Brazilians that had previously been living abroad (mostly in the U.S., Japan, Paraguay, Portugal, and Bolivia) returned to Brazil. The main

⁶¹ Revista Veja (2019), *Cresce o número de estrangeiros nas faculdades da cidade*: <https://vejasp.abril.com.br/cidades/estrangeiros-nas-faculdades>

⁶² INEP (2019), *Censo da Educação Superior 2018 – Notas Estatísticas*: http://download.inep.gov.br/educacao_superior/censo_superior/documentos/2019/censo_da_educacao_superior_2018-notas_estatisticas.pdf

⁶³ Hauser, Henri (1942), *Japanese Immigration in Brazil*, *New Mexico Quarterly* 12(1), 8.

⁶⁴ INEP (2019), *Censo da Educação Superior*: <http://portal.inep.gov.br/web/guest/microdados>

⁶⁵ Census occur in Brazil every ten years. A new one was scheduled to take place in 2020, however, due to the COVID-19 pandemic, it was postponed to 2021.

⁶⁶ Oliveira, Antônio Tadeu (2013), "Um Panorama da Migração Internacional a Partir do Censo Demográfico de 2010", *Revista Interdisciplinar da Mobilidade Humana* 21(40): 197.

receiving states in Brazil included Sao Paulo, Paraná and Minas Gerais.⁶⁷ According to available statistics, in 2015, more than a fifth (40,341) of all Brazilian returnees could be considered STEM professionals or other highly qualified professionals and intellectuals.⁶⁸ Approximately 11,100 of high-skilled individuals were previously living in the U.S. The majority of returnees (42.8%) were also relatively young, and principally between 25 and 39 years old.⁶⁹

At present, while there is no specific policy or program for attracting qualified overseas Brazilians back to Brazil, return migrants are still considered more relevant for Brazil's economy than foreign high-skilled professionals. Currently, the Brazilian government estimates that approximately 3 million Brazilians are still living abroad.⁷⁰ However, in light of the very limited scale of returns to Brazil, this rather limited pool of Brazilians living abroad of which only some might be interested in returning, and the talent shortages that have started to emerge in Brazil, high-skilled talent inflows from other countries and of non-Brazilian nationals or background are very likely to become of increasing relevance in the years to come.

Legal frameworks for the immigration of foreign workers and global talent

Unlike other countries, in Brazil immigration affairs fall solely under federal jurisdiction. Until recently, immigration was regulated through an old 'Foreigners Statute' that dated back to 1980. In 1980, Brazil's government had also created the National Immigration Council (CNIg) which, until now, has had the prerogative of creating policies and normative regulations related to immigration and the attraction of qualified foreign workers.⁷¹ Since 1993, the CNIg has involved representatives from several ministries (including the Ministry of Science and Technology) and civil representatives from labour unions, employers associations, and the science and technology community.⁷² In 2017, a new piece of legislation for immigrants (known as 'Immigration Law') was approved.⁷³ Notably, since then, several new policies and regulations have been introduced. Amongst them, new work-related visas and an expansion of the country's

⁶⁷ From 2005 to 2010, absolute numbers of Brazilians returning from these countries were: U.S. (43,750), Japan (36,900), Portugal (16,460), Paraguay (13,750), and the UK (11,240): Oliveira, Antônio Tadeu (2013), 199.

⁶⁸ Botega, Tuila et al. (2015), *Migrações Internacionais de Retorno no Brasil*: https://portaldeimigracao.mj.gov.br/images/publicacoes-obmigra/Relatorio_sobre_o_Retorno_de_Brasileiros.pdf

⁶⁹ OBMigra (2015), *Migrações Internacionais de Retorno no Brasil*, 28-37.

⁷⁰ Ministério de Relações Exteriores (2015), *Brasileiros no Mundo*: <http://www.brasileirosnomundo.itamaraty.gov.br/a-comunidade/estimativas-populacionais-das-comunidades/Estimativas%20RCN%202015%20-%20Atualizado.pdf>

⁷¹ Oliveira, Antônio Tadeu Ribeiro (2017), "Nova lei brasileira de migração: avanços, desafios e ameaças", *Revista Brasileira de Estudos de População* 34(1): 171.

⁷² The permanent council of the CNIg congregates 14 members: Brazil (1993), *Decreto No 840, de 22 de Junho de 1993*: http://www.planalto.gov.br/ccivil_03/decreto/D0840.htm

⁷³ The Law originated from the Bill 5.565/2009, from 2009: Oliveira (2017), 173.

visa waiver program, currently available for citizens of 100 countries.⁷⁴ However, by comparison, procedures for hiring foreigners from outside the Mercosur bloc are still relatively complex.

Foreigners from outside the Mercosur bloc can only obtain a Brazilian work visa only based on the invitation (and recruitment) by a Brazilian employer and a prior authorization granted by the Labour Ministry.⁷⁵ Meanwhile, Mercosur nationals and citizens of associated states benefitted from the aforementioned Mercosur 'Residency Agreement' (2002) which continues to be an uncomplicated avenue for applicants in this category to obtain residence permits⁷⁶ and take up employment in Brazil.

Temporary migrants (such as foreign workers, students, etc.) usually need travel visas to enter the country and temporary residence permits to reside in Brazil (if their stay is expected to last longer than 90 days). Residence permits grant immigrants access to basic public services throughout the country. Prior to the enactment of the 2017 Immigration Law, immigrants were able to apply for residence permits once they had resided in Brazil for more than 90 days. This has changed, Brazil now requires immigrants interested in obtaining work visas and staying longer or permanently in Brazil to have their residence permits pre-approved before applying for a travel visa at Brazilian consulates.⁷⁷

Generally speaking, in most cases, it is the employer's duty to obtain approval for a work-related residence permit. In order to receive this authorization, Brazilian employers usually need to demonstrate the relevance of hiring a foreigner (instead of a Brazilian citizen) and also at least two thirds of the employers other employees must be Brazilian.⁷⁸ If approved, work-related residence permits are issued for one to two years and may be renewed for a new period or converted into permanent ones.⁷⁹ Foreigners with work-related

⁷⁴ When available, visa exemptions are usually applicable for individuals wishing to stay in Brazil for no longer than 90 days: Ministry of External Relations (2019), *Entry Visas to Brazil*: [https://sistemas.mre.gov.br/kitweb/datafiles/NovaYork/en-us/file/QGRV_simples_\(ing\)_Novo_190617.pdf](https://sistemas.mre.gov.br/kitweb/datafiles/NovaYork/en-us/file/QGRV_simples_(ing)_Novo_190617.pdf)

⁷⁵ Cassar, Vóia Bomfim (2011), *Direito do Trabalho*, Niterói: Impetus, p. 350. Since 2019, due to the extinction of the Ministry of Labor, these procedures were transferred to the Ministry of Justice.

⁷⁶ Through the agreement, citizens from Mercosur countries and its associate states may obtain residence permits valid for two years. These permits may be converted to permanent ones after expired: Oliveira, Antônio Tadeu Ribeiro et al. (2016), "O Acordo de Residência do Mercosul e a inserção da força de trabalho sul- americana no Brasil: uma análise exploratória", *Anais da Associação Brasileira de Estudos Populacionais* 20(1): 5.

⁷⁷ Applications for labor-related residence permits have to be submitted through a special website (<https://portaldeimigracao.mj.gov.br/pt/migranteweb>) and are analyzed by the Justice Ministry. Albeit foreign employees may submit the applications themselves, given that applicants must state specific information about their employers (such as total revenue, number of employees, etc.), this process is usually done by the employers in Brazil: Ministério da Justiça e Segurança Pública (2020), *Informações Gerais*: <https://portaldeimigracao.mj.gov.br/pt/informacoes-gerais>

⁷⁸ Vilela, Elaine Meire & Sampaio, Daniela Portella (2015), "Um olhar sobre as autorizações de permanência a estrangeiros no Brasil, entre 2005 e 2011", *Revista Brasileira de Estudos de População* 32(1): 38; Olivieri, Cristiane & Natale, Edson (2016), *Guia brasileiro de produção cultural: Ações que transformam a cidade*, São Paulo: Edições Sesc, p. 67. A Bill from 2019 proposes that the requirement of having at least 2/3 of Brazilians in the *cadre* of employees should no longer exist and that companies that do maintain this proportion should receive incentives: Brazil (2019), *PL 2456/2019*: <https://www.camara.leg.br/noticias/560489-projeto-desobriga-empresas-de-contratar-2-3-de-brasileiros/>

⁷⁹ After their expiration, residence permits can be renewed for a period up to two years or for an 'undetermined period', conferring a similar status to permanent residence permits in other countries: Brazil (2018), *Resolução Normativa n° 29, de 12 de*

visas and temporary residence permits may change their employers, as long as authorized by the Justice Ministry.⁸⁰ The 2017 Immigration Law has started to allow for the approval of work-related visas and residence permits to foreign nationals without established legal ties to a Brazilian employer, but who wish to take part in technology transfer, a professional training programs, or work under a master service agreement between a Brazilian company and a foreign company.⁸¹

Additionally, citizens of 100 countries are exempt from visas for visiting Brazil for short term stays (90 days or less).⁸² This policy covers those visiting the country for several purposes (including business, research, participation in conferences, and student exchange programs) as long as no paid work is conducted.⁸³ In most cases, Brazil includes countries on its visa waiver program on a reciprocal basis. However, in 2019, Australia, Canada, Japan, and the U.S. were added.

Although not yet regulated, one of the most innovative features of the 2017 Immigration Law was the possibility issuing work visas to foreigners with “strategic professional capabilities”, even if these individuals have not been recruited by a Brazilian employer.⁸⁴ This decree also established that these individuals would benefit from simplified visa procedures. Moreover, the new law also created a special visa for foreign nationals involved in “activities of economic, scientific, technological, or cultural relevance”, known as ‘VITEM X’.⁸⁵

Foreign workers in Brazil may also transfer previous contributions made towards retirement abroad. Currently, Brazil is a state party to 2 multilateral⁸⁶ and 15 bilateral⁸⁷ social security agreements.⁸⁸ Most agreements also cover events such as disability and death, allowing beneficiaries and their family members to receive pensions in their country of habitual residence.

junho de 2018: http://www.in.gov.br/materia/-/asset_publisher/Kujirw0TZC2Mb/content/id/34026028/do1-2018-07-25-resolucao-normativa-n-29-de-12-de-junho-de-2018-34025984. When applying to renew a work-related residence permit, a foreigner may inform if renewing the document to for an ‘undetermined time period’ is the preferred option. The final decision in regards to the time period of the renewed permit will be taken by the Justice Ministry: Brazil (2018), *Resolução Normativa no 30, de 12 de junho de 2018*, Art. 1.

⁸⁰ Brazil (2017), *Decreto n° 9.199, de 20 de novembro de 2017*, Art. 147.

⁸¹ In most cases, besides demonstrating the purpose of their stay/trip, these migrant workers will also need to demonstrate their ties to a foreign employer: Brazilian Embassy in Moscow (2020), *Visto de Trabalho (VITEM V)*: <https://sistemas.mre.gov.br/kitweb/datafiles/Moscou/pt-br/file/VITEM%20V.pdf>

⁸² Ministry of External Relations (2019), *Entry Visas to Brazil*.

⁸³ Brazilian Consulate General in Atlanta (2020), *Visit Visa (VIVIS)*: http://atlanta.itamaraty.gov.br/en-us/visit_visa.xml

⁸⁴ Brazil (2017), *Decreto n° 9.199, de 20 de novembro de 2017*, Art. 38.

⁸⁵ Brazilian Consulate General in Geneva (2020), *Visas*: <http://genebra.itamaraty.gov.br/pt-br/vistos.xml>

⁸⁶ Brazil is a state party to the Mercosur Social Security Agreement (also in force in Argentina, Paraguay, and Uruguay) and the Ibero-American Multilateral Agreement on Social Security (also in force in Argentina, Bolivia, Chile, Ecuador, El Salvador, Paraguay, Peru, Spain, and Uruguay). The former is in force in Brazil since 2005 and the latter since 2011.

⁸⁷ Brazil has bilateral agreements with Belgium, Cabo Verde, Canada, Chile, France, Germany, Greece, Italy, Japan, Luxemburg, Portugal, South Korea, Spain, Switzerland, and the United States.

⁸⁸ INSS (2019), *Acordo entre Brasil e Suíça já está em vigor*: <https://www.inss.gov.br/acordo-entre-brasil-e-suica-ja-esta-em-vigor/>

New initiatives for international students and scholars

Brazilian consulates are offering two different visas to international students and scholars: the first, offered to students up to the Master's level (known as 'VITEM IV'); and a second, offered to professors, researchers, and doctoral-level students (known as 'VITEM I'). While beneficiaries of VITEM IV visas may apply for residence permits within the first 90 days after they arrive in Brazil, those wishing to obtain a VITEM I visa need to have their residence permits approved before applying for the visa.⁸⁹ In most cases, visas and residence permits for foreign students and scholars need to be renewed on an annual basis.⁹⁰

Since 2011, through the 'Science without Borders' (SwB) program (2011-2017), stakeholders involved in the higher education sector in Brazil have been trying to attract more foreign STEM scholars and researchers as means of fostering the development of new technologies and the internationalization of Brazilian research projects.⁹¹ In doing so, during the SwB program, approximately 4,000 foreign researchers received grants to come to Brazil. Following the termination of this program, the 'Institutional Internationalization Program' (IIP), introduced in 2017, has tried to attract more foreign scholars to the country, while also sending a set number of Brazilian scholars abroad for exchange.⁹² The program, which is set to continue until 2023, is of a considerably smaller scale and, so far, only 36 Brazilian universities (both publicly and privately funded) are participating in the program.⁹³ Notably, in order to qualify for this program, candidates can be either foreigners or Brazilian citizens (as long as they have had relevant professional experience abroad) specialized in STEM areas.⁹⁴ Usually, grants are offered to visiting researchers, visiting professors, and post-doctoral fellows and, in most cases, they can last from six to twelve months.⁹⁵ The highest annual grant offered (for visiting professors) can reach up to CAD 50,000⁹⁶ and may include several additional benefits (such as the coverage of travel-related expenses). When put into perspective, this is significantly above the average annual salary for professors in Brazilian universities (CAD 20,150).⁹⁷

⁸⁹ Ministério da Justiça (2020), *Autorização de Residência*: <https://www.justica.gov.br/seus-direitos/migracoes/autorizacao-de-residencia>

⁹⁰ Brazil (2017), *Decreto nº 9.199, de 20 de novembro de 2017*, Art. 146. Individuals from CPLP countries are exempt from fees related to residence permits in Brazil: Brazil (2009), *Decreto nº 6.771, de 16 de fevereiro de 2009*, Art. 1.

⁹¹ Saenge, Emília & Teixeira, Maria (2018), "A internacionalização por meio da bolsa de Pesquisador Visitante Especial do Programa Ciência sem Fronteiras do CNPq", *Ensaio* 26(100): 849-852.

⁹² CAPES (2017), *Programa Institucional de Internacionalização*.

⁹³ Agência Brasil (2020), *Capas busca maior qualidade em programas de intercâmbio*; CAPES (2020), *CAPES muda concessão de bolsas de cursos nota 3 e amplia prazo do PrInt*: <https://capes.gov.br/36-noticias/9526-capes-muda-concessao-de-bolsas-de-cursos-nota-3-e-amplia-prazo-do-print>

⁹⁴ PrInt-CAPES (2020), *Bolsas de Pós-doutorado no País*: <http://print.dpi.inpe.br/wp-content/uploads/2020/02/Edital-002-2020-PDB-PII-INPE.pdf>

⁹⁵ PrInt-CAPES (2020), *Editais*: <http://print.dpi.inpe.br/editais/>

⁹⁶ The equivalent of 188,110.58 Brazilian reais.

⁹⁷ The equivalent of 85,536 Brazilian reais: Glassdoor (2020): *Salários de Professor Universitário*: https://www.glassdoor.com.br/Salários/professor-universitário-salário-SRCH_KO0.23.htm

In Brazil, public and private universities may offer spots to foreign undergraduate students. Notably, publicly funded universities are amongst the most prestigious in the country and charge no fees to their students (including foreigners). Foreigners may be admitted to undergraduate programs in public universities via the National High School Examination (ENEM) or through special admission pathways for international students offered by some universities. In 2019, almost 6,000 foreigners took the ENEM test.⁹⁸

Since 1965, students from 65 Global South countries⁹⁹ with which Brazil maintains educational and scientific agreements can apply to pursue their undergraduate studies in Brazil through the 'Exchange Program for Undergraduate Students' (PEC-G).¹⁰⁰ Students may take part in a variety of programs¹⁰¹, including in STEM fields, and those with high scores may further apply for special grants. Annually, an average of 500 students are selected.¹⁰² Notably, most students come from Portuguese-speaking African countries, such as Cabo Verde, Guinea-Bissau, and Angola. In addition to the PEC-G program, two federal universities (one located in Paraná¹⁰³ and the other located in the states of Bahia and Ceará¹⁰⁴) reserve half of their undergraduate spots to students from countries Brazil is related via regional agreements.

In spite of the exponential growth of the private higher education sector in Brazil in recent years, the most prestigious universities in the country (especially those with relevant graduate programs and research initiatives) are publicly funded and charge no fees to its students, including foreigners.¹⁰⁵ In addition, international students are eligible to apply to the same scholarships and grant opportunities offered to Brazilian citizens. Beneficiaries of student visas (VITEM IV, for students up to the Master's level) are also allowed to work in Brazil (including outside campus) as long as the workload is compatible with their study

⁹⁸ Empresa Brasil de Comunicação (EBC) (2019), *Enem 2019: quase seis mil inscritos no exame são estrangeiros*: <https://tvbrasil.ebc.com.br/reporter-brasil/2019/10/enem-2019-quase-seis-mil-inscritos-no-exame-sao-estrangeiros>

⁹⁹ Amongst these are 25 countries from Africa, 25 countries from Latin America, 9 countries from Asia and 3 countries from the European continent: Ministério de Relações Exteriores (2020), *PECs: Países participantes*: http://www.dce.mre.gov.br/PEC/paises_participantes.php

¹⁰⁰ Barros, Deolindo & Nogueira, Sílvia Garcia (2015), "Brazil/Africa International Education Cooperation: From the Student Programme – Under-Graduation Agreement (Pec-G) to the International Integration of Afro-Brazilian Culture University (UNILAB)", *Revista de Estudos Internacionais* 6(2): 20-121.

¹⁰¹ Most students are enrolled in Portuguese, Communications, Administration, Biology, and Pedagogy. Nevertheless, almost 300 programs are offered: Ministério de Relações Exteriores (2020), *PEC-G 2020: Lista de Cursos Oferecidos*: http://www.dce.mre.gov.br/PEC/G/processo_seletivo/lista_cursos_oferecidos_2020.php

¹⁰² Ministério de Relações Exteriores (2020), *Histórico do Programa: Introdução*: <http://www.dce.mre.gov.br/PEC/G/historico/introducao.php>

¹⁰³ The Federal University for Latin American Integration (UNILA) was founded in 2010 and 50 percent of its spots are exclusive for students from Latin America and the Caribbean. In addition, most courses are offered in Spanish and Portuguese, making it the only bilingual university in Brazil: Prolo, Ivor et al. (2019), "UNILA: the university as vector of regional integration", *Educational Sociology* 40: 11.

¹⁰⁴ The University for International Integration of the Afro-Brazilian Lusophony (UNILAB) was founded in 2013 and 50 percent of its spots are exclusive to students from the Community of Portuguese-Speaking Countries (CPLP). The nine CPLP countries are Angola, Brazil, Cabo Verde, Guinea Bissau, Mozambique, Portugal, São Tomé and Príncipe, East Timor, and Equatorial Guinea: Heleno, Maurício & Gurjão, Bezerra (2020), "The place of the Universidade da Integração Internacional da Lusofonia Afro-Brasileira (UNILAB – University for the International Integration of African-Brazilian Portuguese-speaking Countries) within the foreign policy of Lula's Administration (2003-2010)", *O Público e o Privado* 23: 112.

¹⁰⁵ Durhan, Eunice Ribeiro (1998), "As Universidades Públicas e a Pesquisa no Brasil", *Nupes* 9: 4.

schedule.¹⁰⁶ Beneficiaries of Academic Research, Teaching or Extension visas (VITEM I, including professors, researchers, and doctoral-level students) may also establish work contracts with their prospective universities provided they receive an authorization from the Ministry of Justice.¹⁰⁷

As of yet, Brazil has no agreement of reciprocal recognition of foreign diplomas with other countries. The country is a part of the Mercosur Regional Courses Accreditation System (ARCU-SUR), which makes select undergraduate program diplomas valid across the Mercosur region.¹⁰⁸ In most cases, foreign students from outside the Mercosur bloc have to ‘validate’ their diplomas with Brazilian public universities in a special, additional process that is rather lengthy and may take from 60-90 days.¹⁰⁹

Retention strategies: pathways to permanent residency and citizenship

In Brazil, most work-related residence permits can be converted into permanent permits after their first expiration date (after a period of one or two years).¹¹⁰ The same applies to individuals holding residence permits related to academic research, teaching or extension, as long as they have established work contracts in the country.¹¹¹ Mercosur nationals living in Brazil may apply for permanent residency, regardless of the purpose of their stay, after living in Brazil for two years.¹¹²

All foreigners, regardless of the purpose of their stay, may apply for Brazilian citizenship after living in the country for at least four years and demonstrating they speak Portuguese fluently.¹¹³ Notably, prior to the 2017 immigration legal framework, a period of at least fifteen years of previous continuous residency in the country was required for

¹⁰⁶ Brazilian Embassy in Singapore (2020), *Temporary Visa IV – Study (VITEM IV)*: http://cingapura.itamaraty.gov.br/en-us/r_vitem_iv_study.xml

¹⁰⁷ Brazilian Embassy in Singapore (2020), *Temporary Visa I – Academic Research, Teaching, or Extension (VITEM I)*: http://cingapura.itamaraty.gov.br/en-us/r_vitem_i_academic.xml

¹⁰⁸ As of December 2019, 354 undergraduate programs had been accredited by the ARCU-SUR system. Accredited courses in 2019 belonged to the fields of agronomy, architecture, economy, geology, medicine, nursing, odontology, pharmacy, and veterinary. Approved courses are accredited for a six-year period: INEP (2019), *Novo portal do ARCU-SUL tem documentos e informações sobre acreditação de cursos no âmbito do Mercosul*: http://portal.inep.gov.br/artigo/-/asset_publisher/B4AQV9zFY7Bv/content/novo-portal-do-arcu-sul-tem-documentos-e-informacoes-sobre-acreditacao-de-cursos-no-ambito-do-mercosul/21206; Barreyro, Gladys & Hizume, Gabriella (2016), “La implementación del Sistema Regional de Acreditación de Carreras Universitarias del Mercosur: algunas comparaciones entre las Agencias Nacionales de Acreditación”, *Revista Española de Educación Comparada* 28: 211-213.

¹⁰⁹ Fundação Getulio Vargas (FGV) (2020), *Foreign diploma recognition bottlenecks difficult attraction of skilled labor to Brazil*: <http://dapp.fgv.br/en/revalidation-recognition-diplomas-brazil-crossroad-near-end/>

¹¹⁰ Programs offered at UNILAB are considered to be ‘strategic’ for the development of the Community of Portuguese-Speaking Countries (CPLP).

¹¹¹ Brazil (2018), *Resolução Normativa nº 29, de 12 de junho de 2018*, Annex XXV.

¹¹² Moura, Aline Beltrame (2015), “The space creation for free residence in Mercosur under the teleological perspective of regional integration: normative and social aspects of residency agreements”, *Revista de Direito Internacional de Brasília* 12(2): 641.

¹¹³ Brazil (2017), *Decreto nº 9.199, de 20 de novembro de 2017*, Art. 160. Due to a bilateral treaty signed with Portugal in 2000, Portuguese citizens may apply for citizenship after a three-year period: Brazil (2001), *Decreto nº 3.927, de 19 de setembro de 2001*, Art. 17.

naturalization.¹¹⁴ Moreover, it is customary for foreigner to have to take the CELPE-Bras¹¹⁵ exam to confirm their fluency in Portuguese. Only applicants for citizenship coming from Portuguese-speaking countries are exempted from this requirement. However, in 2018, naturalization was made easier for students admitted to Brazilian universities through the Brazilian National High School Examination (ENEM), for foreign nationals who already had concluded higher education programs in Brazil, and for those foreign nationals who were hired by a Brazilian public university as a professor, scientist, or technician.¹¹⁶ In addition, with the 2017 Immigration Law, foreigners with relevant “professional, scientific, or artistic capabilities” or who have provided or will provide “relevant services” to the country may apply for Brazilian citizenship earlier. Instead of after four years, they are allowed to apply already after two years of continuous permanent residence in Brazil.¹¹⁷ Between 2010 and 2018, approximately 12,160 foreigners were naturalized.¹¹⁸ In 2019, processing was further simplified, resulting in a strong increase in citizenship applications. In 2019, more than 7,600 immigrants became Brazilian citizens¹¹⁹, amongst the main groups were Cubans¹²⁰ and international students.¹²¹

¹¹⁴ Brazil (1985), *Constituição Federal*, Art. 12.

¹¹⁵ The Certificate of Proficiency in Portuguese for Foreigners (CELPE-Bras), is an exam to attest fluency in Portuguese which can be obtained in Brazil or in other 40 countries: Dell’Isola, Regina et al. (2003), “A avaliação de proficiência em português língua estrangeira: o exame CELPE-Bras”, *Rev. Brasileira de Linguística Aplicada* 3(1), 155.

¹¹⁶ Ministério da Justiça (2018), *Portaria Interministerial no 16, de 3 de outubro de 2018*: <http://www.pf.gov.br/servicos-pf/imigracao/naturalizacao/PORTINTERN16DE03.10.2018.pdf>

¹¹⁷ Brazil (2017), Art. 236.

¹¹⁸ Cavalcanti et al. (2019), 16.

¹¹⁹ Pinho, Márcio (2019), *Naturalização de estrangeiros sobe 358% no ano; cubanos lideram*:

<https://noticias.r7.com/brasil/naturalizacao-de-estrangeiros-sobe-358-no-ano-cubanos-lideram-31122019>

¹²⁰ From 2013 to 2019, the Brazilian government implemented the ‘Mais Médicos’ Program, aiming to hire foreign medical personnel to work in Brazilian health care facilities located in remote areas of the country. Most of those hired were Cubans, who received work contracts valid for three years (renewable). Since its beginning, almost 15,000 Cubans came to Brazil under this program. Notably, several doctors decided to remain in Brazil after their contracts expired. In 2019, 2,500 Cubans reportedly remained in Brazil after the program ended: Villen, Patricia (2020), “International Migration to Brazil and the Crisis of Democracy”, in: Ipek, Volkan & Ilter-Akarcay, Ebru (eds.) *To Democratize or Not? Trials and Tribulations in the Postcolonial World*, Newcastle upon Tyne: Cambridge Scholars Publishing, 240; Díez, Beatriz (2019), *Mais Médicos: Cubanos que ficaram no Brasil após fim do programa relatam dificuldades*: <https://www.bbc.com/portuguese/internacional-47634101>

¹²¹ Pinho (2019).

III. Stakeholder viewpoints

Recently published studies by human resources firm *Manpower Group* and the *Brazilian National Industry Confederation (CNI)* show that over half of all employers and industries in Brazil are experiencing issues for hiring high-skilled professionals.¹²² As expressed by *CNI* analysts, some of the direct consequences of have been companies experiencing a lack of capacity for increasing productivity, acquiring new technologies, and developing new products, which hinders the country's competitiveness and growth.¹²³ According to the *Confederation*, this issue could be solved through the adoption of short- and long-term strategies, such as reforming Brazil's educational system, investing in professional training, and hiring foreign qualified workers. Nevertheless, according to the *CNI*, employers facing talent shortages in Brazil rarely attempt to attract professionals from abroad.¹²⁴

Congruently, other relevant stakeholders also recognize the importance of attracting and retaining high-skilled immigrants in the context of current talent shortages in the country.¹²⁵ In 2018, Christina Aires, representative of the *National Industry Confederation (CNI)* at the *National Immigration Council (CNIg)*, stated that "structural educational flaws create gaps in areas in need of technology and innovation. They need to be corrected, but this takes time".¹²⁶ Maria Vincenza Desiderio, immigration analyst at the *Organization for Economic Development and Co-Operation (OECD) International Migration Division* who acted as a consultant for the Brazilian government in 2015, argued that "attracting highly qualified human capital from abroad may be an effective short- and medium-term solution to meet existing labor demand [...] and introduce thinkers, entrepreneurs, and talented investors with the skills the country needs to prosper in a knowledge-based economy".¹²⁷ Desiderio also considered that "rather than being an alternative, the attraction of international talent complements other actions for the expansion of the national talent base".¹²⁸

¹²² Confederação Nacional da Indústria (CNI) (2020), *Falta de Trabalho Qualificado*: https://bucket-gw-cni-static-cms-si.s3.amazonaws.com/media/filer_public/53/fc/53fc7968-f778-4153-a771-6305d46edaab/sondespecial_faltadetrabalhadorqualificado.pdf, 7. *ManpowerGroup* (2019), *Fechando o gap das competências: o que os trabalhadores querem*: https://www.manpowergroup.com.br/wps/wcm/connect/manpowergroup/2d5f748e-01ad-4965-97d0-18d429bade77/MPG-BR-Escassez-de-Talentos-2020.pdf?MOD=AJPERES&CONVERT_TO=url&CACHEID=ROOTWORKSPACE.Z18_2802IK01OORA70QUFIPQ192H31-2d5f748e-01ad-4965-97d0-18d429bade77-n7RF.e., 13.

¹²³ *Ibid.*

¹²⁴ CNI (2020), 11.

¹²⁵ Cavalcanti, Leonardo et al. (2019), 41. Agência Brasil (2018), *Brasil pretende atrair mão de obra estrangeira qualificada para o país*: <https://agenciabrasil.ebc.com.br/direitos-humanos/noticia/2018-05/brasil-pretende-atrair-mao-de-obra-estrangeira-qualificada-para-o>

¹²⁶ Costa, Daiane (2018), *Incentivo à imigração elevaria o PIB brasileiro em até 20% em 2040*:

<https://oglobo.globo.com/economia/incentivo-imigracao-elevaria-pib-brasileiro-em-ate-20-em-2040-23274834>

¹²⁷ Desiderio, Maria Vincenza (2015), "Atração Transfronteiriça de Recursos Humanos Altamente Qualificados: Um Estudo Comparativo de Relevância para o Brasil": http://www.mdic.gov.br/arquivos/dwnl_14302293762.pdf

¹²⁸ Desiderio (2015).

Naturally, coordinated efforts, involving different government branches and stakeholders, are needed to implement a talent attraction strategy aligned to a country's needs. According to Francisco Barreto Araujo, public policy analyst at the *Getúlio Vargas Foundation (FGV)* and author of a study in 2013 in support of attracting qualified migrants, “the attraction of talented individuals must be linked with to the national development strategy”.¹²⁹ Moreover, “it must cross different bureaucratic stances, demanding an extraordinary coordination capacity amongst government branches, in terms of both planning and execution”.¹³⁰ However, a well-coordinated governmental strategy to this end has not yet been created in Brazil.

Although the country's 2017 Immigration Law calls for the elaboration of a *National Policy on Migration, Asylum and Statelessness* (Article 120), no information about its content and current stage has been released.¹³¹ Rather, norms and regulations for immigrants (including those aimed at attracting talented migrants) have been slowly emerging in a non-coordinated manner during recent years. According to the *International Organization for Migration (IOM)*, which published a snapshot report on Brazil's immigration policy context in 2018, “the Government is currently working on the regulation of article 120. The upcoming introduction of a national policy is a crucial step towards the improvement of governance among the diverse federative bodies and civil society actors involved in migration management”.¹³² Nevertheless, according to federal public defender Edilson Santana, who recently took part in a report on immigration in Brazil jointly published by the country's *Public Prosecutor's Office* and the *United Nations High Commissioner for Refugees (UNHCR)* (2020) “the regulation [of the National Immigration Policy] may stay confined in the hands of a specific government branch and this process needs to be brought to discussion within society”.¹³³

A variety of factors influence a country's attractiveness for qualified migrants. Amongst them, there may be drivers (such as professional opportunities, capital infrastructure, the presence of other talented professionals, etc.) and facilitators (such as the availability of reliable social services, environmental factors, and the receptiveness of the host society among others).¹³⁴ Naturally, long and onerous immigration

¹²⁹ Araújo, Francisco Barreto (2013), *Estudo da FGV propõe medidas de atração de mão-de-obra especializada ao país*: <https://portal.fgv.br/noticias/estudo-fgv-propoe-medidas-atracao-mao-obra-especializada-ao-pais>

¹³⁰ Araújo (2013).

¹³¹ Brazil (2017), *Lei de Migrações*, Art. 120.

¹³² International Organization for Migration (2018), *Migration Governance Snapshot: The Federative Republic of Brazil*: <https://migrationdataportal.org/sites/default/files/2018-09/Migration%20Governance%20Snapshot%20-%20The%20Federative%20Republic%20of%20Brazil.pdf>

¹³³ Escola Superior do Ministério Público da União (ESMPU) & United Nations High Commissioner for Refugees (UNHCR) (2020), *Percursos, percalços e perspectivas: a jornada do projeto Atuação em Rede: capacitação dos atores envolvidos no acolhimento, na integração e na interiorização de refugiados e migrantes no Brasil*, Brasília: ESMPU, UNHCR, 44.

¹³⁴ Papademetriou, Demetrios & Sumption, Madeleine (2013), *Attracting and Selecting from the Global Talent Pool – Policy challenges*: <https://www.migrationpolicy.org/research/attracting-and-selecting-global-talent-pool-policy-challenges>

processes may discourage talented individuals from moving to a specific country, especially in a scenario where other states may offer simplified migration procedures to high-skilled individuals. In this respect, while migration policies are not *per se* the main factors influencing migrants' decision-making calculus, they can also act as facilitators during this process.

While the Mercosur arrangement significantly relaxed procedures for hiring foreigners from neighbouring countries, few mechanisms directed to attract and simplify procedures for recruiting qualified immigrants from other regions were established. According to Maria Vincenza Desiderio (OECD), “migration procedures to Brazil are complex and this may discourage the immigration of future highly qualified candidates, who are capable of choosing different destination countries”.¹³⁵ In tandem, a 2019 study commissioned by the Brazilian government shows that employers were also avoid hiring foreigners due to not knowing the adequate immigration and hiring procedures to follow.¹³⁶

The 2017 Immigration Law predicted the possibility of granting work visas and stay permits to foreigners from outside the Mercosur region without specific links to a Brazilian employer, given that these individuals possessed “strategic professional capabilities” (Article 38 and 147).¹³⁷ According to the IOM, the Brazilian government is currently working on the regulation of this provision.¹³⁸ Desiderio (OECD) considered that these work visas could be operationalized with the introduction of lists of “occupations in demand”: “*In cases of persistent and unmet labour demands for specific occupations – as it seems to be the Brazilian case, due to the insufficient availability of graduates in some strategic areas – the introduction of lists of occupations in demand could be useful to match the economic development needs of the country*”.¹³⁹

Historically, there has not been an expressive number of foreign students pursuing higher education degrees in Brazil. Albeit on a limited scale, the ‘Institutional Internationalization Program’ (IIP) currently attempts to attract international graduate students and scholars (including Brazilians with relevant international experience) from STEM fields through grant opportunities that are above the market in Brazil. However, in terms of students at the undergraduate level, there has not been a targeted effort to attract those specializing in STEM fields. Moreover, given that the vast majority of programs are only offered in Portuguese, language represents a significant barrier to a wider international enrolment. According to Maria Vincenza Desiderio (OECD), “the availability of higher education programs offered in English should be expanded. Due to the size of the Hispanic community in the Americas, the introduction of programs in Spanish should also be

¹³⁵ Desiderio (2015), 80.

¹³⁶ Senado Federal (2019), *Por preconceito e desinformação, empresas evitam contratar refugiados*:

<https://www12.senado.leg.br/noticias/especiais/especial-cidadania/por-preconceito-e-desinformacao-empresas-evitam-contratar-refugiados>

¹³⁷ Brazil (2017), *Decreto n° 9.199, de 20 de novembro de 2017*, Art. 38.

¹³⁸ IOM (2018), 6.

¹³⁹ Desiderio (2015), 81.

eventually considered”¹⁴⁰ Desiderio also considers that “the recognition of foreign credentials is usually complicated due to the lack of coordination amongst the different institutions responsible for the validation of foreign diplomas”, representing a barrier for the attraction of international students.

According to the IOM, the recognition of foreign credentials in Brazil has been problematic for international students and migrant workers alike: “The process for revalidation of university and professional titles obtained abroad, either by non-nationals or by Brazilians, is costly and complicated, generating difficulties for immigrants and Brazilians who have studied abroad to work in their areas of studies”¹⁴¹.

Following the new Immigration Law (2017), pathways for permanent residence and citizenship have been relatively simplified in Brazil. While there are no specific policies to retain qualified immigrants through permanent residence, foreigners with relevant “professional, scientific, or artistic capabilities” or who have provided or will provide “relevant services” to the country may apply for naturalization within a shorter period of continuous residence in Brazil (two years).¹⁴² In addition, language requirements for naturalization have been eased for immigrants recruited to work at public universities or who have pursued higher education programs in the country.¹⁴³

Disaggregated and high-quality statistics relative to migration patterns in Brazil have been notably scarce. According to the IOM, “there is very limited information available, and reports (such as those produced by OBMigra) are not regular or comprehensive”.¹⁴⁴ ¹⁴⁵ The “construction of solid databases on migratory fluxes in Brazil” has been amongst the *International Labour Organization’s (ILO)* key recommendations for migration governance in the country in recent years.¹⁴⁶ The organization has also emphasized that “data relevant for tracking international migration should be made publicly available”.¹⁴⁷ Currently, available data on Mercosur nationals living in Brazil (including their qualifications) is far less detailed than data about migrant workers from other regions. This is probably due to the fact that Mercosur nationals are registered by the Federal Policy only, while migrant workers from other regions are also registered by the Ministry of Justice, which collects relevant statistics relative to their employment and qualifications. On this matter, the IOM considers that “there is potential for the integration of the different databases that contain information

¹⁴⁰ Desiderio (2015), 81.

¹⁴¹ IOM (2018), 6.

¹⁴² Brazil (2017), *Decreto nº 9.199, de 20 de novembro de 2017*, Art. 236.

¹⁴³ Ministério da Justiça (2018), *Portaria Interministerial no 16, de 3 de outubro de 2018*, Art. 2.

¹⁴⁴ OBMigra is a thinktank linked to CNIg and the University of Brasília (UNB).

¹⁴⁵ IOM (2018), 5.

¹⁴⁶ International Labour Organization (ILO) (2009), *Contribuições para a Construção de Políticas Públicas Voltadas à Migração para o Trabalho*: https://www.ilo.org/wcmsp5/groups/public/---americas/---ro-lima/---ilo-brasilvia/documents/publication/wcms_233760.pdf

¹⁴⁷ ILO (2016), *Migração Laboral no Brasil: Políticas. Leis e Boas Práticas (2007-2016)*:

https://www.ilo.org/wcmsp5/groups/public/---americas/---ro-lima/---ilo-brasilvia/documents/publication/wcms_547266.pdf

about immigrants, in order to improve evidence availability”.¹⁴⁸ While the launch of a new data portal with statistics on labour immigration (known as *DataMigra*) was announced by the national government, it has been delayed for more than a year.¹⁴⁹ Furthermore, available data on emigrants and Brazilian returnees is outdated (collected for the last time during the 2010 national census).¹⁵⁰ A new national census was expected to occur in 2020 and collect relevant data on the profile of immigrant groups in the country and Brazilians who have returned from abroad for the first time since 2010.¹⁵¹ However, due to the COVID -19 pandemic and lack of available resources, it has been postponed twice and is now set to only take place in 2022.¹⁵²

¹⁴⁸ IOM (2018), 4.

¹⁴⁹ Ministério da Justiça (2019), *Data Migra*, <https://portaldeimigracao.mj.gov.br/pt/datamigra>

¹⁵⁰ IOM (2020).

¹⁵¹ IBGE (2020), *Censo Demográfico de 2020 – Questionário Amostra*:

https://censo2020.ibge.gov.br/media/com_media/ibge/arquivos/bd918f26b77d18d86c251e7b1f7c1a70.pdf

¹⁵² Agência Brasil (2021), STF decide que Censo deverá ser realizado em 2022:

<https://agenciabrasil.ebc.com.br/justica/noticia/2021-05/stf-decide-que-censo-devera-ser-realizado-em-2022>

IV. Conclusions. Recommendations and Outlook

While Brazil has created policies to attract and retain highly skilled immigrants in recent years, in particular visiting scholars and researchers from STEM fields, it has done so in a non-coordinated manner and limited scale. During the last decade, the ratio of qualified immigrants amongst the total migrant worker population has more than halved and the share of foreigners working in Brazil's STEM sector dropped significantly. Notably, following the enactment of the Mercosur Residence Agreement (2009), foreigners from South and Central America have been dominating immigration to Brazil. Furthermore, immigration procedures for individuals from outside the region have become increasingly complex and talent needs grow.

After almost four decades, Brazil substituted its Foreigner's Statute (1980) and enacted a new Immigration Law in 2017. Albeit representing a great advance for the country's immigration legal framework, the law's impact on the attraction of highly skilled immigrants is hindered by its unfinished regulation and lack of a clear overarching strategy for immigration in the country. Relevant mechanisms stipulated by the new legislation, such as special visas and residence permits (decoupled from a job offer) for individuals with "strategic professional capabilities" (Articles 38 and 147), are yet to be regulated. Moreover, while the new Immigration Law calls for the creation of a 'National Policy on Migration, Asylum and Statelessness' (Article 120), it is also yet to be finalized and little is known about its current stage and content. Key recommendations and remaining improvement opportunities based on the findings of this report include:

1. Incorporate a strategy for attracting talented migrants in the country's upcoming National Policy on Migration, Asylum and Statelessness.

Brazil needs to create a national strategy for attracting qualified immigrants. Notably, the country's 2017 Immigration Law calls for the establishment of a 'National Policy on Migration, Asylum and Statelessness' (Article 120), which is yet to be published. Ideally, this policy should incorporate a national strategy for attracting high-skilled migrants, which currently also does not exist in Brazil. This strategy should be aligned to Brazil's development objectives and incorporate the needs of strategic sectors, such as the national industry and the educational sector, and also needs of particular states and municipalities. Therefore, the CNIg, responsible for formulating the country's immigration policies, should better liaise with local-level representatives and stakeholders from relevant sectors in order to identify talent shortages and create a policy capable of catering to the country's needs.

2. Ease procedures for recruiting high skilled immigrants from outside the Mercosur region and regulate mechanisms for foreigners with ‘strategic professional capabilities.’

Brazil should create easier pathways and expedited procedures for the recruitment of high-skilled immigrant groups from outside the Mercosur region. The government should also regulate Articles 38 and 147 of the Immigration Law, which call for the emission of special work visas and residence permits for foreigners with ‘strategic professional capabilities’ without the requirement of being recruited by a Brazilian employer.

3. Embrace international STEM students and enhance higher education programs’ attractiveness.

International STEM students and scholars are catalyzers for innovation and tend to become important assets when encouraged to prolong their stay or make it permanent. Therefore, Brazil should work towards intensifying the internationalization of its higher education STEM programs. Considering that the Portuguese language represents a ‘barrier’ to most foreign students and scholars, public and private universities should amplify the availability of programs and courses offered in English and Spanish (widely spoken in the region). Moreover, procedures for recognizing foreign credentials should be simplified and agreements of mutual recognition of foreign diplomas expanded. At the graduate level, Brazil should increment its policy of targeted attraction of visiting researchers and professors through more competitive grants and bursaries.

4. Increase data collection and transparency on immigrant groups and complete the DataMigra project.

High-quality statistics and data are crucial for implementing and evaluating policies more adequately aligned with Brazil’s needs. The government should work towards completing the *DataMigra* project and making statistics on international migration more widely available. In addition to providing data on migrant workers from outside the Mercosur region who come to the country with work visas (which are published by the *OBMigra* thinktank through sporadic reports), the government should also publish statistics related to other immigrant groups. Ideally, precise data on other temporary resident groups (including international students and researchers), permanent residents, naturalized Brazilians, and returnees should be made available.

Similar to other countries, Brazil’s economy was highly impacted by COVID-19-related restrictions and its GDP decreased 4.1% in 2020.¹⁵³ Nevertheless, economic activity in the country is recovering and Brazil’s Central Bank foresees a growth of over 4% in 2021.¹⁵⁴ Moreover, as the pandemic de-accelerates and risks

¹⁵³ Agência Brasil (2021), *Brazil Economy Down 4.1 Percent In 2020*: <https://agenciabrasil.ebc.com.br/en/economia/noticia/2021-03/brazil-economy-down-41-percent-2020>

¹⁵⁴ Estadão (2021), *A Forte Recuperação do PIB*: <https://economia.estadao.com.br/noticias/geral.a-forte-recuperacao-do-pib.70003728765>

of future waves appear to be controllable, international mobility restrictions in the country are being lifted and immigration flows are starting to grow.

Following global trends, Brazil is transitioning into a knowledge-based economy and, in order to maintain growth and successfully compete with other markets, will be required to stimulate its R&D and innovation-oriented sectors. However, in the short term, the country should first address its imminent talent shortages in order to induce and keep economic growth. In tandem with actions to foster the growth of the domestic talent base, Brazil should stimulate the attraction and retention of global talent as a complementary measure. To do so, the country should work towards finalizing its 'National Policy on Migration, Asylum and Statelessness' and couple it with a global talent attraction strategy. This policy should be well-coordinated and capable of serving the needs of relevant sectors and local settings. In particular, civil society should have a stronger role in this process and be encouraged to join the debate on the good impacts attracting and retaining global talent may bring to economic recovery in Brazil.