

Research Article

## EXPLORING INTELLECTUAL AND EDUCATIONAL MIGRATION IN KAZAKHSTAN: DOCUMENTARY ANALYSIS

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### ABSTRACT

**Background:** Addressing brain drain and fostering human capital development are critical for sustaining a nation's long-term economic growth, innovation capacity, and global competitiveness. Kazakhstan has faced significant brain drain, particularly following the dissolution of the Soviet Union, as many skilled professionals sought better opportunities abroad. Despite government efforts to retain talent, the country continues to experience a negative migration balance, with a substantial portion of emigrants being highly educated and skilled. This study examines the challenges posed by brain drain and evaluates Kazakhstan's current policy initiatives aimed at addressing intellectual migration and fostering human capital development.

**Methods:** The study employs a qualitative research approach using documentary analysis to explore intellectual and educational migration in Kazakhstan. The methodology involves systematically reviewing key government policy documents and reports, such as the Concept of Migration Policy of the Republic of Kazakhstan for 2023-2027. Documentary analysis was selected for its ability to provide in-depth insights into government initiatives and policy frameworks, enabling an assessment of their long-term effectiveness. Content analysis was applied to identify recurring themes and policy shifts related to human capital development and brain drain.

**Results and conclusions:** The findings highlight the government's efforts to attract skilled professionals, retain domestic talent, and foster international collaboration through streamlined visa processes, academic partnerships, and the establishment of international branch campuses. The analysis highlights educational immigration as a core component of

*Kazakhstan's migration strategy, shaped by regional factors and geopolitical considerations. Despite these efforts, the study identifies ongoing challenges in creating attractive domestic career opportunities and competitive research environments, which are crucial for the long-term retention of talent. By leveraging international best practices and fostering collaboration between the government, academia, and industry, Kazakhstan can enhance its position in the global knowledge economy while addressing demographic and economic challenges. The paper concludes by discussing the potential policy implications and recommendations for sustaining Kazakhstan's human capital development in the context of global intellectual migration trends.*

## 1 INTRODUCTION

Despite achieving impressive economic growth since the 2000s, fueled by resource extraction and market reforms, Kazakhstan faces challenges sustaining this progress. According to the World Bank, the current resource-dependent, state-controlled model risks stagnation and widening inequality.<sup>1</sup> It is emphasised that overcoming these vulnerabilities requires Kazakhstan to prioritise human capital development alongside economic reforms. A key component of this vision is the development of a strong knowledge-based economy fueled by a skilled and innovative workforce. However, this objective is challenged by the phenomenon of intellectual migration, also known as *brain drain*. Brain drain refers to the emigration of highly educated and skilled individuals, often to developed countries with more attractive job opportunities and living standards. This loss of human capital can have a significant negative impact on developing countries, hindering economic growth, innovation, and long-term development prospects.<sup>2</sup> The World Migration Report 2024 from the International Organization for Migration (IOM) highlights major trends in global migration, emphasising that most international migration is driven by work, family, and educational opportunities.<sup>3</sup>

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1 World Bank, *Kazakhstan: Strengthening Public Finance for Inclusive and Resilient Growth: Public Finance Review; Overview Report* (World Bank Group 2023) <<https://documents.worldbank.org/pt/publication/documents-reports/documentdetail/099057102282440191/idu18abfcc0a1106d14ee1ace011ff55c80e795>> accessed 10 September 2024.

2 Michel Beine, Frédéric Docquier and Hillel Rapoport, 'Brain Drain and Economic Growth: Theory and Evidence' (2001) 64(1) *Journal of Development Economics* 275, doi:10.1016/S0304-3878(00)00133-4; Bhawana Bhardwaj and Dipanker Sharma, 'Migration of Skilled Professionals across the Border: Brain Drain or Brain Gain?' (2023) 41(6) *European Management Journal* 1021, doi:10.1016/j.emj.2022.12.011; Wei Li, Lucia Lo and Yixi Lu, 'Introduction: The Intellectual Migration Analytics' (2023) 49(18) *Journal of Ethnic and Migration Studies* 4577, doi:10.1080/1369183X.2023.2270314.

3 Marie McAuliffe and Linda Adhiambo Oucho (eds), *World Migration Report 2024* (IOM 2024) <<https://publications.iom.int/books/world-migration-report-2024>> accessed 10 September 2024.

In turn, intellectual migration significantly contributes to the economic development and competitiveness of host countries.<sup>4</sup>

From 2011 to 2022, Kazakhstan experienced a confluence of globalisation and its influence on migration patterns. This period was marked by a negative migration balance starting in 2012, indicating an outflow of population exceeding the inflow. According to the newly adopted Concept of Migration Policy of the Republic of Kazakhstan for 2023-2027 (hereafter: the Concept), this phenomenon was particularly concerning due to the significant number of skilled labourers with higher education (38%) and technical-professional backgrounds (34%) leaving the country (reference).<sup>5</sup> This trend in outward migration negatively impacts Kazakhstan's human capital, a crucial factor for economic development and innovation.

Furthermore, educational migration, where Kazakhstani youth pursue higher education abroad, presents a "double-edged sword".<sup>6</sup> While it offers exposure to diverse knowledge and potentially higher quality education, it can also lead to a loss of intellectual potential if graduates choose to remain abroad for employment or permanent residence. Recognising this challenge, developing and retaining human capital becomes paramount. Implementing policies that address the root causes of emigration and incentivise skilled professionals to stay in Kazakhstan are crucial steps towards achieving sustainable development and fostering a thriving knowledge economy. Given the limited dissemination of specific initiatives within the new Concept, this study delves into the policy document to shed light on previously unknown details concerning Kazakhstan's strategies for retaining and attracting skilled professionals.

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4 Michael C Ewers and others, 'Skilled Migration to Emerging Economies: The Global Competition for Talent beyond the West' (2022) 19(2) *Globalizations* 268, doi:10.1080/14747731.2021.1882816; Olena Oliinyk and others, 'Integrated Assessment of the Attractiveness of the EU for Intellectual Immigrants: A Taxonomy-Based Approach' (2022) 182(7) *Technological Forecasting and Social Change* 121805, doi:10.1016/j.techfore.2022.121805.

5 Resolution of the Government of the Republic of Kazakhstan no 961 of 30 November 2022 'On approval of the Concept of Migration Policy of the Republic of Kazakhstan for 2023-2027' <<https://adilet.zan.kz/kaz/docs/P2200000961>> accessed 10 September 2024.

6 Baurzhan Bokayev and others, 'Migration Trends in Kazakhstan: Exploring Migration Causes and Factors' (2021) 22(2) *Central Asia and the Caucasus* 150, doi:10.37178/ca-c.21.2.13; Baurzhan Bokayev, Zulfiya Torebekova and Zhuldyz Davletbayeva, 'Preventing Brain Drain: Kazakhstan's Presidential "Bolashak" Scholarship and Government Regulations of Intellectual Migration' (2020) 19(3) *Public Policy and Administration* 25, doi:10.5755/j01.ppa.19.3.27764.

## 2 BACKGROUNDS

Brain drain presents a complex challenge for developing nations. While it contributes to global economic growth and benefits both migrants and receiving countries, it depletes developing countries of their most critical resource - skilled human capital. International organisations and home governments must navigate this paradox to find solutions that optimise human capital for global prosperity. The British Royal Society first coined the term “brain drain” in the 1960s to describe the exodus of many highly skilled professionals, like scientists and doctors, leaving the country. Bhagwati and Hamada were the first to develop a major theory about brain drain, arguing that it brings about negative consequences.<sup>7</sup>

Since the 1960s, the number of immigrants in developed countries has skyrocketed, tripling in size and doubling again by 1985, mirroring the growth in global trade. Notably, this migration is increasingly skilled, with these professionals coming primarily from developing nations. This trend suggests a brain drain from developing countries as skilled workers move to developed regions at a faster pace than overall migration.<sup>8</sup> This seems even more critical since international migration statistics in general are only increasing (Table 1).<sup>9</sup>

**Table 1. International migrants since 1970**

Year	Number of international migrants	Migrants as a % of the world's population
1970	84 460 125	2.3
1975	90 368 010	2.2
1980	101 983 149	2.3
1985	113 206 691	2.3
1990	152 986 157	2.9
1995	161 289 976	2.8
2000	173 230 585	2.8
2005	191 446 828	2.9
2010	220 983 187	3.2
2015	247 958 644	3.4
2020	280 598 105	3.6

7 Jagdish Bhagwati and Koichi Hamada, ‘The Brain Drain, International Integration of Markets for Professionals and Unemployment. A Theoretical Analysis’ (1974) 1(1) *Journal of Development Economics* 19, doi:10.1016/0304-3878(74)90020-0.

8 Frédéric Docquier and Hillel Rapoport, ‘Quantifying the Impact of Highly-Skilled Emigration on Developing Countries’ in Tito Boeri and others (eds), *Brain Drain and Brain Gain: The Global Competition to Attract High-Skilled Migrants* (Oxford Academic 2012) 211, doi:10.1093/acprof:oso/9780199654826.001.000.

9 McAuliffe and Oucho (n 3).

Following the dissolution of the Soviet Union in 1991, Kazakhstan experienced a period of significant intellectual migration. Many skilled professionals, particularly those in scientific and technical fields, left the country seeking better opportunities in the newly formed market economy. This initial wave of brain drain was driven by the economic instability and uncertainty of the post-Soviet transition.

The President of the Republic of Kazakhstan, Kassym-Zhomart Tokayev, has emphasised the need to revitalise the country's scientific capacity, pointing to how decades of neglect have deteriorated Kazakhstan's scientific positioning, resulting in a loss of research infrastructure and talent. The exodus of 40,000 scientists during the 1990s compounded these systemic issues, leaving lasting consequences today. Recent events, such as the worst floods in over 80 years, as well as wildfires and earthquakes in Almaty, have highlighted the need for improved scientific forecasting and risk assessment of emergencies. Systemic problems, such as a lack of qualified personnel and scientific support, hinder effective emergency prevention. Research by Docquier and Rapoport highlights the extent of this challenge; for example, in 2003, 9.7% of Kazakhstan's researchers in science and technology were working in the US, with 1,108 researchers abroad out of a total of 10,339 at home, indicating a 9.7% brain drain to the US only.<sup>10</sup>

More recently, data from the Bureau of National Statistics of Kazakhstan reveals significant emigration trends. By mid-2021, out of Kazakhstan's approximately 20 million citizens, over 4 million were residing abroad, with Russia being the primary destination, accounting for 64% of these expatriates. Germany, Ukraine, Belarus, and the United States also attracted a considerable number of emigrants. Notably, Kazakhstan has experienced a negative migration balance for nearly two decades, with departures exceeding arrivals by a factor of three in 2021.<sup>11</sup>

More concerning is that around 40% of the emigrants are skilled labourers with higher education and professional technical backgrounds. Kassym-Jomart Tokayev's speech at the National Council on Science and Technology meeting clearly highlighted this. Therefore, an urgent radical change in addressing migration policies is necessary.

Given these demographic shifts and economic aspirations, a closer look at Kazakhstan's migration policy is crucial to understanding its challenges and opportunities. This paper explores the government's current initiatives to address brain drain and foster a more sustainable migration landscape.

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10 Docquier and Rapoport (n 8).

11 Gulsara Kappassova and others, 'Migration Processes in the Republic of Kazakhstan: Regularities, Problems, and Prospects' (2024) 59 *Two Homelands* 107, doi:10.3986/2024.1.07.

### 3 LITERATURE REVIEW

The challenges of brain drain and human capital development have been extensively studied within the broader context of migration and its impact on national economies. The IOM acknowledges the absence of a universally agreed-upon definition for “migrant” within international law. To address this gap, the IOM has adopted a working definition that reflects the common understanding: a person who moves, either temporarily or permanently, away from their usual residence, within a country or across international borders, driven by various motivations. This broad definition encompasses established legal categories like migrant workers, those whose movement is legally defined (e.g., smuggled migrants), and individuals whose migratory status or means of movement lack specific legal definition under international law (e.g., international students).

According to the IOM, migration is the act of moving from one place to another, encompassing both internal (within a country) and international relocations. This movement can be from rural to urban areas, across districts or provinces, or even across national borders. However, the term migrant describes a person based on their circumstances, not necessarily the act of moving itself (as defined in the “Defining migration, migrant and other key terms” section). While many migrants do indeed undertake some form of migration, the term can encompass individuals who have not necessarily moved but whose circumstances fall within the definition.<sup>12</sup>

Migration affects not only a country's demographic structure but also its national economy, with the potential to either enhance or undermine economic development, thus presenting a crucial concern for policymakers.<sup>13</sup>

Whereas intellectual migration, characterised by the movement of scientists and technologists across institutions, societies, or industries, serves as a conduit for disseminating advanced scientific knowledge, both temporarily and permanently.<sup>14</sup> It represents a dynamic interplay between the mobility of highly educated and skilled individuals and the various life stages that influence their decisions to migrate. Research suggests that intellectual migration involves the movement of skilled individuals across borders to pursue educational and professional opportunities.<sup>15</sup>

Recent global studies on intellectual migration have increasingly emphasised its critical role in fostering innovation and driving economic development, particularly through the

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12 Janie A Chuang, ‘The International Organization for Migration and New Global Migration Governance’ (2022) 63(2) *Harvard International Law Journal* 401.

13 Tetiana Zatonatska and others, ‘Impact Factors for Immigration to Spain’ (2024) 7(1) *Access to Justice in Eastern Europe* 264, doi:10.33327/AJEE-18-7.1-a000119.

14 Li, Lo and Lu (n 2).

15 Wei Li and others, ‘Intellectual Migration: Considering China’ (2020) 47(12) *Journal of Ethnic and Migration Studies* 2833, doi:10.1080/1369183X.2020.1739393.

transnational movement of highly skilled individuals.<sup>16</sup> The study by Li found that for China-born scholars in the US, a significant portion of their intellectual capital is within Chinese networks, which supports knowledge transfer back to China. The study argues that intellectual capital is dynamic and context-dependent, shaped by intellectual migration and academic ties.<sup>17</sup>

Meanwhile, Tan and Li identified China's Pearl River Delta region of China as an emerging "intellectual gateway" attracting skilled international migrants, particularly from the US, due to its knowledge-based economy and socio-cultural environment. While the region facilitates the accumulation of intellectual capital, structural barriers, such as China's immigration policies and global power dynamics, hinder full integration into local society, leading to low intentions among migrants to assimilate. The study underscores the need for cohesive policies that enhance both structural and socio-cultural integration to retain global talent and support sustainable, innovative development.<sup>18</sup>

Simon analysed the role of two Hungarian-born economists in the British economy in the post-1945 period and found that their migration, along with the resulting intellectual cross-fertilisation, significantly impacted the development of economic thought in the UK.<sup>19</sup> Collectively, these studies demonstrate the pivotal role that intellectual migration plays in shaping the global landscape of knowledge and innovation. Facilitating the exchange of ideas and expertise across borders not only enhances the intellectual capital of host countries but also fosters connections with home countries, creating a dynamic cycle of knowledge transfer.

Intellectual migration is a journey of spatial mobility driven by individuals accumulating and utilising intellectual capital, a combination of human, social, cultural, and symbolic assets. Through active engagement, these capitals synergistically fuel upward social and economic mobility.<sup>20</sup> Migration patterns often exhibit a cumulative nature, with flows tending to follow established geographical, cultural, or political channels. Early migration by highly skilled individuals who benefit from lower moving costs or greater incentives

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16 Xiaojie Li, 'China-Born Scholars' Intellectual Capital: A Network Approach' (2023) 49(18) *Journal of Ethnic and Migration Studies* 4681, doi:10.1080/1369183X.2023.2270337; Yixi Lu, Jason Jean and Ling Ma, 'Comparing Chinese Academic Returnees in Chengdu and Guangzhou: Reasons for Return, Choice of Destination and Onward Migration Intention' (2023) 49(18) *Journal of Ethnic and Migration Studies* 4747, doi:10.1080/1369183X.2023.2270342; Yining Tan and Wei Li, 'Skilled US Migrants in the Pearl River Delta Region: The Rise of an Intellectual Gateway in China' (2023) 49(18) *Journal of Ethnic and Migration Studies* 4768, doi:10.1080/1369183X.2023.2270343.

17 Li (n 16).

18 Tan and Li (n 16).c

19 Ágnes Simon, 'Intellectual Migration and Economic Thought: Central European Émigré Economists and the History of Modern Economics' (2012) 38(3) *History of European Ideas* 467, doi:10.1080/01916599.2012.681524.

20 Li, Lo and Lu (n 2); Yining Tan and others, 'Intellectual Capital and Student Mobility' (2023) 49(18) *Journal of Ethnic and Migration Studies* 4641, doi:10.1080/1369183X.2023.2270332.

reduces the barriers for subsequent migration waves. This process continues as long as the net benefits of migration outweigh the associated costs.<sup>21</sup> This movement can influence both the origin and destination countries by fostering knowledge transfer, innovation, and national development. For instance, Beine et al.'s study analysed 127 developing countries using estimates of emigration rates for highly educated individuals. The research revealed a positive impact of skilled migration prospects on the levels of human capital prior to migration, indicating that the possibility of emigration can encourage greater investment in education.<sup>22</sup>

Kazakhstan, as a developing nation striving for global integration, faces the challenge of intellectual migration, or brain drain. While open communication fosters the movement of skilled individuals, economic disparity makes it difficult to compete with developed nations. This brain drain threatens national security, prompting the need for further research on its specific impact on Kazakhstan.<sup>23</sup>

Well-recognised for their quantitative research in measuring migration, Docquier and Rapoport challenge the prevailing notion that the emigration of highly skilled individuals is invariably detrimental to sending countries.<sup>24</sup> Their analysis suggests a threshold effect, where brain drain becomes only truly negative when exceeding 20% of the skilled workforce. When considering additional factors like knowledge transfer, improved institutions, selective migration of the most qualified, remittances, and increased trade and foreign direct investment (FDI), this threshold can be reasonably extended to 35%. Consequently, the optimal emigration rate for skilled workers in developing countries could be around 15%. However, in the case of Kazakhstan, data since the 1990s indicate that the country has suffered a detrimentally significant brain drain, which has hindered its economic and technological development.

Oliinyk confirms a positive correlation between the immigration of highly skilled workers and a country's competitiveness and economic growth.<sup>25</sup> Factors like a nation's attractiveness to highly educated immigrants and the potential for "brain gain" significantly influence competitiveness and GDP per capita. Policies that encourage the arrival of highly skilled migrants can significantly replenish intellectual capital and create a competitive environment that motivates domestic professionals to improve continuously. The study

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21 Docquier and Rapoport (n 8).

22 Michel Beine, Frédéric Docquier and Hillel Rapoport, 'Brain Drain and Human Capital Formation in Developing Countries: Winners and Losers' (2008) 118(528) *Economic Journal* 631, doi:10.1111/j.1468-0297.2008.02135.x.

23 Bokayev, Torebekova and Davletbayeva (n 6); Kargash Zhanpeisova and others, 'Brain Drain from the Republic of Kazakhstan as Analyzed by Political Scientists' (2020) 21(4) *Central Asia and the Caucasus* 142, doi:10.37178/ca-c.20.4.14.

24 Docquier and Rapoport (n 8).

25 Olena Oliinyk and others, 'The Impact of Migration of Highly Skilled Workers on the Country's Competitiveness and Economic Growth' (2021) 17(3) *Montenegrin Journal of Economics* 7, doi:10.14254/1800-5845/2021.17-3.1.



emphasises the need for further research on designing and implementing public policies that create favourable conditions for attracting these professionals. This could include visa facilitation, support services, and family-friendly living conditions. While social development indicators remain important, the identified connections highlight the efficiency of creating an attractive environment for highly skilled migrants.

At the same time, while some definitions of brain drain focus on migration from developing to developed countries, this view is debatable. Brain drain can also occur between nations with similar income levels and quality of life.<sup>26</sup> This is supported by the Deputy Prime Minister and Minister of Labour and Social Protection of Population Duissenova, who has reported that the majority of immigrants originate from neighbouring Commonwealth of Independent States (CIS) countries, China and Mongolia. Notably, the largest share of these immigrants possesses technical (1,443), economic (577), pedagogical (288), and medical (191) skills. Furthermore, according to the Concept, a significant increase in arrivals, with a 49% rise in the first eight months of 2022 compared to the same period in 2021 (9,595 people in 2022 compared to 6,339 in 2021), necessitates a strategic response.<sup>27</sup> Notably, this influx includes a growing number of skilled professionals, particularly in the IT sector.

Recognising the potential economic benefits associated with this demographic, the government is exploring the introduction of a “digital nomad visa.” This visa would be designed to attract and retain high-earning remote IT workers, allowing them to reside and work in Kazakhstan for an extended period. This suggests an influx of skilled labour in these specific areas. Additionally, the arrival of 13,569 “kandas” since the beginning of the year signifies a significant movement of ethnic Kazakhs returning to their homeland.

Moreover, the migration corridor between Kazakhstan and Russia has recently been identified as one of the largest in the world. The term “migration corridor” refers to the movement of people from a specific origin country (country A) to a specific destination country (country B). Its size is quantified by the number of individuals born in country A who reside in country B at a particular time.<sup>28</sup> The war in Ukraine and mobilisation in Russia sparked a massive exodus to Central Asia in 2022. Hundreds of thousands, with over 200,000 entering Kazakhstan alone after a partial mobilisation, fled to countries like Kazakhstan, Uzbekistan, and Tajikistan. With its relaxed entry rules and large Russian population, these nations, especially Kazakhstan, became preferred escape routes. In response to this influx, Kazakhstan tightened its entry regulations in 2023.

While the data clearly shows a picture of Kazakhstan’s brain drain, focusing solely on increasing emigration neglects a crucial element: understanding the root causes that push

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26 *ibid.*

27 Resolution of the Government of the Republic of Kazakhstan no 961 (n 5).

28 Marie McAuliffe and Anna Triandafyllidou (eds), *World Migration Report 2022* (IOM 2022) <<https://publications.iom.int/books/world-migration-report-2022>> accessed 10 September 2024.

skilled professionals to leave in the first place. Only by addressing these drivers of migration can Kazakhstan develop a sustainable strategy to retain its talent pool while simultaneously being more attractive to potential skilled migrants.

#### 4 FACTORS DRIVING INTELLECTUAL MIGRATION

A complex interplay of factors drives intellectual migration from Kazakhstan, categorised as push factors within the country that incentivise emigration and pull factors offered by destination countries. The most comprehensive overview of drivers and motivations of skilled migration is represented in Figure 1 as a result of a systematic literature review by Bhardwaj and Sharma.<sup>29</sup>



*Figure 1. Drivers of skilled migration*

<sup>29</sup> Bhardwaj and Sharma (n 2).

In the context of Kazakhstan, push factors involve limited economic opportunities when many skilled professionals face limited career advancement opportunities and stagnant wages, particularly outside the major cities. A World Bank study found that Kazakhstan's labour market suffers from skill mismatches, with a surplus of low-skilled labour and a shortage of highly skilled workers in specific sectors.<sup>30</sup> This mismatch can lead to underemployment and frustration among educated individuals, pushing them to seek better opportunities abroad.

Kazakhstan's investment in research and development (R&D) remains low compared to developed economies,<sup>31</sup> limiting opportunities for innovation and restricting skilled researchers from pursuing cutting-edge work within the country. A UNESCO Institute for Statistics report highlights the significant gap between Kazakhstan and developed nations in terms of research expenditure per capita.<sup>32</sup> In addition to that, outdated infrastructure and limited access to advanced technologies hinder productivity and innovation. The World Economic Forum's Global Competitiveness Report ranks Kazakhstan low in terms of infrastructure development, particularly in information and communication technologies.<sup>33</sup> This lack of access to modern tools can be a significant push factor for skilled professionals seeking to work in environments that support cutting-edge research and development.

Moreover, bureaucratic hurdles and corruption within government institutions can create frustration and discouragement for skilled professionals. A Transparency International survey shows that despite efforts to combat corruption, Kazakhstan continues to struggle with these issues despite ongoing government efforts,<sup>34</sup> making it difficult for skilled individuals to navigate the system and establish themselves professionally.

A study by Bokayev examines the factors influencing the migration patterns of Kazakhstani graduates who pursued higher education abroad and chose to migrate permanently.<sup>35</sup> Based on a survey of 1,111 graduates and interviews with highly qualified individuals, the research found that competitive salaries (54%) were the primary driver, followed by a strong desire for a high level of socio-economic development (52%)

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30 World Bank (n 1).

31 Mariza Tsakalou and Almat Abilez, 'The Paradox of Kazakhstan: Linear vs Harmonic Innovation' (2022) 217 *Procedia Computer Science* 1734, doi:10.1016/j.procs.2022.12.373.

32 UNESCO Institute for Statistics, 'Global Investments in R&D' (2020) 59 *UIS Fact Sheet* <<https://uis.unesco.org/sites/default/files/documents/fs59-global-investments-rd-2020-en.pdf>> accessed 10 September 2024.

33 Klaus Schwab (ed), *The Global Competitiveness Report: Insight Report* (World Economic Forum 2019) <<https://www.weforum.org/publications/how-to-end-a-decade-of-lost-productivity-growth/>> accessed 10 September 2024.

34 Transparency International, *Corruption Perception Index 2021* (Transparency International 2022) <<https://www.transparency.org/en/cpi/2021>> accessed 10 September 2024.

35 Baurzhan Bokayev, 'Beyond Borders: Understanding Intellectual Migration among Kazakhstani Graduates of Foreign Universities' (2023) 14(3) *Journal of Social Studies Education Research* 167.

in the destination country. Career advancement opportunities (38%), access to quality education and healthcare (32%), and lower levels of corruption (28%) were also identified as significant factors influencing decisions to migrate permanently. Furthermore, the study highlights a preference among highly qualified Kazakhstani specialists for countries like the USA, Great Britain, and Canada. The analysis also suggests that prior work experience abroad, studying in the UK, and residing in Kazakhstan’s suburban areas increase the likelihood of permanent migration.



**Figure 2. Motives for moving abroad for permanent residence**

As Figure 2<sup>36</sup> shows, the main factors influencing decisions are economic. Migrants are drawn to higher salaries, better career prospects, and lower levels of corruption in their new countries. Developed nations, with their strong economies and abundant opportunities, are particularly attractive destinations. Developed countries often offer significantly higher salaries and more attractive career prospects for skilled professionals compared to Kazakhstan.

A study by the Organization for Economic Co-operation and Development (OECD) found that the average salary for scientists and engineers is considerably higher in countries like the United States, Germany, and Canada compared to Kazakhstan.<sup>37</sup> Developed countries typically have well-funded research institutions and access to cutting-edge technology. This

<sup>36</sup> *ibid.*

<sup>37</sup> OECD, *OECD Science, Technology and Industry Scoreboard 2023* (OECD Publ 2023) <[https://www.oecd-ilibrary.org/science-and-technology/oecd-science-technology-and-innovation-outlook\\_25186167](https://www.oecd-ilibrary.org/science-and-technology/oecd-science-technology-and-innovation-outlook_25186167)> accessed 10 September 2024.

creates a stimulating environment that allows skilled professionals to participate in groundbreaking work and contribute to their fields of expertise.

Political stability and a strong rule of law can also be highly attractive for skilled professionals seeking predictability and security in their lives. A report by The Economist Intelligence Unit's Democracy Index categorised several developed countries as "full democracies" compared to Kazakhstan's "hybrid regime" classification.<sup>38</sup> This perception of a more stable political and social environment can be a strong pull factor for Kazakhstani professionals seeking a secure environment to work and raise their families.

Bokayev et al. surveyed over 3,200 citizens in Kazakhstan and found that 75% of respondents were satisfied or somewhat satisfied with the causes of migration.<sup>39</sup> However, in-depth interviews with experts and the fact that over 46% of respondents were willing to emigrate suggests a disconnect. This implies that satisfaction with current living conditions may not translate to long-term confidence in Kazakhstan's future. The study highlights the need to consider factors beyond basic satisfaction when understanding migration intentions. The study found social, economic, and political factors driving migration. Economic concerns were most prominent, with low wages and limited job opportunities leading many (50%) to seek work abroad. Education also played a role, with dissatisfaction over quality and limited support for young professionals motivating some to seek education and careers elsewhere. Political concerns such as corruption and limited human rights protections were also identified as key factors driving emigration. The authors concluded that Kazakhstan must address issues such as improving wages, enhancing education quality, and strengthening human rights to prevent a talent drain and demographic decline. A study by Dalmatov et al. confirms the alarming levels of human rights violations in Kazakhstan.<sup>40</sup> Therefore, considering these factors to effectively address migration patterns, policymakers must acknowledge the complex interplay of economic, social, political, and environmental factors that drive people to move. A nuanced understanding of these various migration drivers is crucial for crafting policies supporting sending and receiving communities.

With intensified competition for skilled labour among both developed and developing nations, educational migration is on the rise, contributing to increased national competitiveness and human capital development.<sup>41</sup> Kappassova et al.'s study proposes key vectors for Kazakhstan's contemporary migration strategy. These include integrating global migration trends into national development programs, establishing conditions

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38 EIU, 'Democracy Index 2022' (*Economist Intelligence: EIU*, 2023) <<https://www.eiu.com/n/campaigns/democracy-index-2022/>> accessed 10 September 2024.

39 Bokayev and others (n 6).

40 Kanatay Dalmatov and others, 'Addressing Human Rights Violations in the Criminal Justice System of Kazakhstan: The Role of the Prosecutor's Office and a Call for Legislative Reforms' (2024) 7(3) Access to Justice in Eastern Europe 63, doi:10.33327/AJEE-18-7.3-a000323.

41 Kappassova and others (n 11).

facilitating successful migrant reception, and promoting seamless integration through social programs, legislative adjustments, and information resources. Furthermore, the research emphasises the importance of utilising cultural and educational resources to foster sociocultural adaptation and strengthen Kazakh identity.<sup>42</sup> To ensure effective implementation of the migration policy, Kazakhstan must adopt a comprehensive set of indicators to evaluate its migration policy. These indicators should assess policy alignment with national goals and international benchmarks, as well as track migration rates and the quality of life for migrants. For example, the government of Kazakhstan is poised to implement a major overhaul of its migration policy through the “Open Kazakhstan 500+” concept.<sup>43</sup> This comprehensive approach addresses several key challenges, including attracting skilled workers, safeguarding the rights of Kazakh citizens working abroad, and tackling regional population imbalances. Furthermore, the concept seeks to modernise the entire migration framework. To achieve these goals, specific initiatives such as a simplified ten-year scientific and pedagogical visa for educational immigration and a new investor visa program for business immigration are being proposed. These reforms hold promise for attracting talent and investment, ultimately contributing to Kazakhstan’s long-term development.

## 5 METHODOLOGIES

This study employs a qualitative research approach using documentary analysis methodology to explore intellectual and educational migration in Kazakhstan. The selection of documentary analysis was based on its ability to offer thorough insights into government initiatives and policy frameworks pertinent to the study’s aim.<sup>44</sup> This method allows the researcher to trace the trajectory of government initiatives and assess their long-term effectiveness. Furthermore, documentary analysis is suitable for studies that analyse large amounts of text data from multiple sources, making it an ideal approach for investigating complex phenomena such as human capital development and brain drain. The documentary analysis was conducted through a systematic review of the selected documents to determine recurring themes and policy initiatives that pertain to intellectual and educational migration.

The data collected for this study was primarily in the form of official policy documents and reports, including national policy papers and strategic development plans related to migration, education, and human capital development in Kazakhstan, making content analysis suitable for data examination. Key policy documents, such as the Concept of

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42 *ibid.*

43 Resolution of the Government of the Republic of Kazakhstan no 961 (n 5).

44 Glenn A Bowen, ‘Document Analysis as a Qualitative Research Method’ (2009) 9(2) *Qualitative Research Journal* 27, doi:10.3316/QRJ0902027.

Migration Policy of the Republic of Kazakhstan for 2023-2027, were analysed to trace the evolution of migration-related strategies, examining how government priorities have shifted over time in response to both internal and external challenges.

## 6 FINDINGS AND DISCUSSION

Kazakhstan's migration policy places a strong emphasis on intellectual migration and educational immigration as key strategies for fostering human capital development and positioning the country as a regional educational hub. This strategic approach focuses on attracting skilled professionals and academics through streamlined visa processes, partnerships with international universities, and developing world-class educational infrastructure. These efforts aim to enhance Kazakhstan's global competitiveness and mitigate the effects of brain drain.

Docquier and Rapoport posit a nuanced perspective on the impact of brain drain,<sup>45</sup> highlighting the role of incentive structures, particularly the interplay between wage differentials, emigration probabilities, and credit constraints. For moderately developed countries, the brain drain presents a significant challenge: while wage gaps create emigration incentives, these nations lack the extreme wealth of developed nations to fully offset the loss through knowledge or technology transfer. Conversely, in very poor countries, credit constraints often limit skilled emigration, which mitigates the immediate human capital loss. However, these constraints also restrict the potential benefits of remittances, potentially hindering development.

Prioritising human capital development through migration necessitates a dual focus: mitigating the outflow of highly educated youth and skilled professionals and attracting high-calibre specialists with in-demand skills.<sup>46</sup> This entails implementing policies to curb brain drain and developing a comprehensive program to lure talent. Additionally, establishing a transparent and flexible entry system for these specialists is crucial.

Kazakhstan's new migration policy, informed by international best practices, seeks to bolster economic development through targeted initiatives. These include attracting skilled professionals by simplifying entry and integration, addressing internal demographic imbalances, and upholding international commitments. Additionally, the policy prioritises protecting Kazakh citizens abroad and implementing measures to regulate migration flows and optimise the country's demographic structure.

This study identified educational immigration as a key pillar of Kazakhstan's evolving migration policy. This strategic focus is driven by several factors. Firstly, Kazakhstan's education system boasts a high degree of integration with the global market, facilitating

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45 Docquier and Rapoport (n 8).

46 Resolution of the Government of the Republic of Kazakhstan no 961 (n 5).

student and faculty mobility. Secondly, ongoing efforts to expand educational infrastructure and attract leading foreign universities further solidify the country's position as a regional education hub. "The first direction of migration policy is educational immigration, the goal of which is to position Kazakhstan as a regional educational hub - Kazakhstan - a centre of academic mobility and attraction of leading scientists and specialists in the most demanded specialties".<sup>47</sup>

The current geopolitical situation and the limitations of the Bologna Process in the CIS region present additional opportunities for Kazakhstan to assert its educational leadership. Additionally, the country's success in attracting foreign faculty underscores its commitment to establishing a diverse and competitive academic environment. Notably, Kazakhstan's education sector remains competitive compared to its CIS counterparts, offering an attractive value proposition for international students. Furthermore, the shortage of higher education institutions in Central Asia, coupled with regional migration patterns, creates a strategic opportunity for Kazakhstan to attract students from neighbouring countries. This aligns with the broader objectives of fostering cultural exchange and expanding Kazakhstan's regional influence. Combining these conditions, Docquier and Rapoport have predicted that middle-income countries with sizable populations will experience the most advantages from skilled emigration, even without considering potential return effects.<sup>48</sup> Their theoretical insights are supported by cross-sectional and panel data analyses presented earlier. However, the question remains: can this inform migration policy? The answer is cautiously optimistic. While destination countries could potentially discriminate in favour of migrants from certain origins, this approach raises complex legal and ethical issues beyond the scope of their paper. The challenge lies in designing quality-selective immigration policies that address the varying effects of brain drain across origin countries without disrupting the entire immigration system.

From the Concept analysis, it is evident that the government has planned several initiatives to enhance intellectual and educational migration. These initiatives are strategically designed to attract and retain skilled professionals, bolster the country's educational infrastructure, and position Kazakhstan as a regional hub for academic excellence.<sup>49</sup> For instance, Initiative 1 prioritises academic mobility to cultivate a knowledge-based economy in Kazakhstan. Through partnerships with leading international universities, this initiative expands educational infrastructure, fosters knowledge exchange, and promotes the

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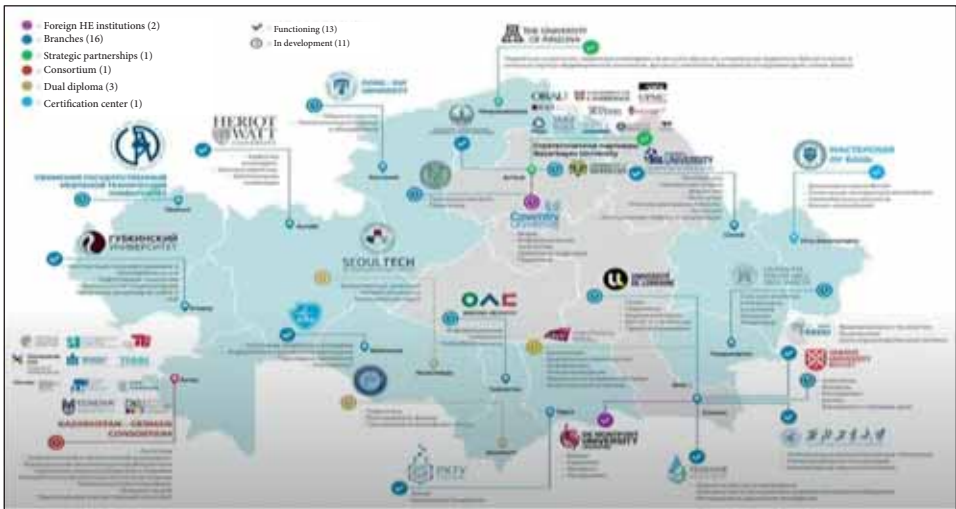
47 *ibid.*

48 Docquier and Rapoport (n 8).

49 Bakhyt Altynbassov and others, 'The Establishment of International University Campuses as a Key Factor in the Development of Local Tourism in the Turkestan Region in Kazakhstan: Economic and Legal Aspects' (2021) 12(6) *Journal of Environmental Management and Tourism* 1454, doi:10.14505/jemt.v12.6(54).03; Aigerim Bayanbayeva and others, 'The Transformational Role of Entrepreneurial Universities in Fostering Tourism Sector of Kazakhstan: Legal Documentary Analysis' (2023) 14(4) *Journal of Environmental Management and Tourism* 2046, doi:10.14505/jemt.14.4(68).16.



adoption of best practices.<sup>50</sup> The Minister of Higher Education and Science recently announced that Kazakhstan has signed 23 academic partnerships, with three university campuses already established in the country. These include De Montfort University (UK), which celebrated its first graduation this year, and the upcoming campuses of Coventry University (UK) and Woosong University (South Korea). Additionally, a dozen branches of foreign universities are operational or planned to open nationwide. Figure 3<sup>51</sup> explicitly shows collaborations with foreign centres for academic and research excellence.



**Figure 3. Centres for academic and research excellence**

A central strategy involves recruiting highly skilled scientists, both from within the country and abroad, to enhance national innovation and research capacity. These researchers not only contribute directly to scientific progress but also improve the overall quality of human capital in the country. To achieve this, Kazakhstan plans to learn from international best practices and create an environment that fosters research productivity. Ultimately, success in domestic science relies on a collaborative effort between the government, the scientific community, and the business sector.

Educational migration can enhance the competitiveness of Kazakhstan's higher education system as a whole. Students returning from abroad bring back valuable knowledge, new skills, and experience adapting to different socio-cultural environments. This can lead to professional development and increased entrepreneurial potential through startup

50 Bakhyt Altynbassov and others, 'Academic Tourism as an Emerging Tourism Industry in Kazakhstan' (2022) 13(6) *Journal of Environmental Management and Tourism* 2068.

51 Center for Communication Services, 'Opening Foreign Higher Education Institution Branches' (*You Tube*, 20 June 2024) <<https://www.youtube.com/watch?v=YvacG300t5c>> accessed 10 September 2024.

capital, ultimately contributing to a more robust national human capital base. Thus, by empowering domestic talent and mitigating brain drain, Initiative 1 seeks to transform Kazakhstan into a global hub for education and innovation, driving human capital development and societal advancement.

Narrowing down the academic focus to improve Kazakhstan's education system, Initiative 2 focuses on attracting top international faculty and students. Long-term visas with residency options are offered to renowned professors and researchers in critical fields, while talented international graduate and undergraduate students are incentivised to study in Kazakhstan through limited work permits.<sup>52</sup> This initiative aims to elevate the academic standing of Kazakh universities, create a more diverse learning environment, and potentially retain skilled graduates in Kazakhstan, ultimately transforming the country into a global hub for education and innovation. Motivated by maximising their own productivity and fostering international collaboration, inventor migration patterns suggest movement towards areas that facilitate these goals.<sup>53</sup> However, on a broader scale, emigration rates of skilled workers must be managed, stating that even with an incentive effect, high emigration possibilities can counteract the benefits.<sup>54</sup> Increased migration options may initially encourage education but ultimately lead to a larger skilled workforce leaving. This suggests a positive impact that diminishes as emigration rates rise. Therefore, origin countries can benefit from skilled emigration as long as these rates remain moderate.

Recognising the importance of human capital for long-term development, the Kazakhstani government has implemented several initiatives to attract and retain skilled professionals. A notable program is the Bolashak Scholarship, established in 1993, which provides financial support for Kazakhstani students to pursue graduate degrees at prestigious universities abroad.<sup>55</sup> The program aims to foster a highly skilled workforce upon the graduates' return to Kazakhstan, equipped with knowledge and expertise gained in leading international institutions. However, concerns have been raised regarding the effectiveness of the Bolashak program, as some graduates choose to remain abroad after completing their studies.<sup>56</sup> A survey of 724 Bolashak scholarship recipients found that while many express a desire to stay in Kazakhstan, a significant portion (21% + 29%) consider emigrating.<sup>57</sup>

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52 Resolution of the Government of the Republic of Kazakhstan no 961 (n 5).

53 Marta Prato, 'The Global Race for Talent: Brain Drain, Knowledge Transfer, and Growth' (SSRN, 27 November 2022) <<https://ssrn.com/abstract=4287268>> accessed 10 September 2024.

54 Docquier and Rapoport (n 8).

55 Laura W Perna, Kata Orosz and Zakir Jumakulov, 'Understanding the Human Capital Benefits of a Government-Funded International Scholarship Program: An Exploration of Kazakhstan's Bolashak Program' (2015) 40 *International Journal of Educational Development* 85, doi:10.1016/j.ijedudev.2014.12.003; Dilrabo Jonbekova and others, 'How International Higher Education Graduates Contribute to Their Home Country: An Example from Government Scholarship Recipients in Kazakhstan' (2023) 42(1) *Higher Education Research and Development* 126, doi:10.1080/07294360.2021.2019200.

56 Bokayev (n 35).

57 Bokayev, Torebekova and Davletbayeva (n 6).

The research identifies age as a key factor influencing this decision. Younger graduates (23-28 years old) prioritise a higher standard of living abroad, while older graduates (29-35 years old) prioritise career advancement opportunities. Lower wages and a lower standard of living in Kazakhstan than potential destinations are significant push factors for emigration, particularly among younger graduates (23-28 years old). While some graduates, especially older ones (29-35 years old), prioritise career opportunities over the standard of living, a perception of limited career prospects in Kazakhstan serves as a strong push factor for younger graduates. Although such findings imply that many graduates pursue their careers or consider their life abroad, an official statement from the Bolashak authorities states that out of over 12000 graduates, only around 1% have not returned to their home country.

Li et al. explain these tendencies where highly educated individuals, like academics, often pursue careers across borders<sup>58</sup> driven by factors such as research opportunities, career advancement, and compensation. However, their mobility is shaped by limitations, including disciplinary constraints, cultural factors, and career stages. Ultimately, academics weigh these factors to find the environment that best supports their growth and value. At the same time, early and mid-career academics from developing countries working in developed nations are less likely to return home, often citing cultural differences and a more supportive work environment abroad. Returns tend to occur due to family reasons or targeted recruitment efforts, while senior academics may be drawn back by leadership roles or plans for retirement in their home countries.

Similarly, highly skilled professionals – like knowledge workers, entrepreneurs, and technocrats – also exhibit high mobility and are often sought after by immigration policies. However, they may face integration challenges into their new societies, including underemployment, identity issues, and limited career advancement. Temporary visa holders face additional barriers to social mobility and policy influence, creating a precarious situation despite their expertise.

For return migration to be beneficial, two conditions are essential: migrants must acquire successful skills and capital acquisition while abroad, and home countries must implement effective reintegration policies by the home country. Such policies should facilitate investment by returnees through streamlined bureaucracy, accessible investment information, and a conducive macroeconomic environment.<sup>59</sup>

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58 Li, Lo and Lu (n 2).

59 Benzie Isaac Adu-Okoree and others, 'Reintegration of Return Migrants in Northern Ghana and Their Remigration Decisions: A Qualitative Study' (2023) 28(6) *The Qualitative Report* 1641, doi:10.46743/2160-3715/2023.5778; Christian Dustmann, Itzhak Fadlon and Yoram Weiss, 'Return Migration, Human Capital Accumulation and the Brain Drain' (2011) 95(1) *Journal of Development Economics* 58, doi:10.1016/j.jdeveco.2010.04.006.

To address skill gaps and enhance Kazakhstan's workforce competitiveness, Initiative 9 focuses on attracting top foreign specialists.<sup>60</sup> In collaboration with leading global companies, these experts will establish national (international/regional) centres of excellence, providing advanced training for domestic personnel. To incentivise their participation, the initiative offers streamlined visa and work permit processes, attractive visa options with residency permits, and fosters stronger collaboration with employers to ensure educational programs align with industry needs. By attracting global expertise and tailoring education to industry demands, Initiative 9 seeks to cultivate a highly skilled domestic workforce capable of driving Kazakhstan's economic development.

To address skill shortages, Initiative 6 offers streamlined visas and residency permits for foreign professionals in science, healthcare, industry, and IT. This initiative prioritises attracting both international experts and ethnic Kazakhs with valuable skills in science, education, industry, IT, sports, and culture. It further aims to attract renowned figures in art, sports, and literature by facilitating the establishment of their schools. By simplifying visa processes and offering residency options, Initiative 6 seeks to make Kazakhstan a more attractive destination for global talent, fostering innovation and economic growth across diverse sectors.

Initiative 8 introduces the "Neo Nomad Visa" to attract remote workers and enhance Kazakhstan's image as a digital nomad hub. This visa offers long-term residency, initially for one year with renewal options, for individuals with foreign employment – either through remote work contracts or freelance clients – and requires a minimum monthly income of USD 3,000 while restricting local employment. By simplifying entry procedures, attracting skilled professionals, and boosting domestic consumption through visa holder spending, this initiative aims to position Kazakhstan as a hub for innovation, entrepreneurship, and global connectivity. However, the effectiveness of this initiative hinges on effectively marketing Kazakhstan's unique offerings to the global digital nomad community and ensuring a seamless visa application and renewal process.

Expansion of visa programs, exemplified by the H1B system (US), presents a potential policy tool for optimising talent allocation and knowledge transfer across borders, ultimately benefiting both sending and receiving countries.<sup>61</sup> However, Docquier and Rapoport posit a nuanced perspective on the brain drain's impact, highlighting how incentive structures – particularly the interplay between wage differentials, emigration probabilities, and credit constraints – shape migration.<sup>62</sup> For moderately developed countries, brain drain presents a significant challenge. While wage differentials incentivise emigrating, these countries lack the extreme wealth of developed nations to fully offset the loss through knowledge or technology transfer. Conversely, in very impoverished countries,

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60 Resolution of the Government of the Republic of Kazakhstan no 961 (n 5).

61 Prato (n 53).

62 Docquier and Rapoport (n 8).

credit constraints often limit the emigration of skilled individuals, mitigating the immediate human capital loss. However, these constraints also restrict the potential benefits of remittances, potentially hindering development.

Linked to human capital development, Initiative 5 introduces a streamlined investor visa program.<sup>63</sup> This initiative seeks to attract top business leaders, particularly those specialising in the knowledge-based creative industries. By simplifying visa procedures for investors making a USD 300,000 investment, the program aims to stimulate economic growth, foster a culture of valuing knowledge, and promote high-quality education. Through residency rights and leveraging the Astana International Financial Center, Initiative 5 hopes to expand investment opportunities, create jobs for Kazakhs, and facilitate technology transfer. Ultimately, this initiative positions Kazakhstan as an attractive destination for global investment, fostering economic diversification and a knowledge-based economy. While short-term policy solutions, such as tax cuts for foreign inventors, can stimulate innovation within a specific nation, the study emphasises potential long-term drawbacks for global economic growth.<sup>64</sup> Zhanpeisova et al. analysed surveys from emigrated specialists, conducted expert interviews on brain drain and polled graduating students to gather comprehensive insights on the issue.<sup>65</sup> Based on their research, they propose a solution: creating scientific centres and implementing economic, social, and professional support programs to retain Kazakhstan's intellectual talent. At the same time, Kazakhstan is aiming to repatriate its scientists who are working abroad. The government recognises the value these researchers bring and is offering targeted support for their research upon return. This initiative acknowledges the importance of a strong scientific workforce for national development.

While Kazakhstan's policies aimed at attracting international talent have the potential to boost innovation, economic development, and global competitiveness, they also carry several potential risks and downsides that require careful consideration. First, there is a possibility of domestic talent displacement, where foreign experts and professionals may occupy positions that could otherwise be filled by local workers, potentially leading to frustration and demotivation among Kazakhstani professionals. This could, in turn, result in a brain drain of local talent to other countries if domestic opportunities are perceived as limited due to the focus on international recruits.

Additionally, an over-reliance on foreign talent might undermine long-term sustainable development if these policies do not equally prioritise the development of local human capital.<sup>66</sup> By focusing predominantly on attracting external expertise, the government risks neglecting investments in local education and training systems, which are critical for

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63 Resolution of the Government of the Republic of Kazakhstan no 961 (n 5).

64 Prato (n 53).

65 Zhanpeisova and others (n 23).

66 Ewers and others (n 4).

nurturing homegrown talent capable of sustaining innovation in the long term. Furthermore, intellectual migration policies, while beneficial, could lead to uneven development where urban centres, such as Almaty and Nur-Sultan, benefit disproportionately, leaving peripheral regions behind. This could exacerbate regional inequalities and deepen socio-economic divisions within the country.

Documentary analysis of the newly adopted Concept reveals a focus on fostering human capital development in Kazakhstan through a multi-pronged approach prioritising global collaboration. Several initiatives target partnerships with leading international universities (Initiatives 1 and 2) to elevate the quality of education and attract expertise. These collaborations involve faculty recruitment, student exchange programs, and the development of dual-degree options. This strategy leverages global best practices to establish Kazakhstan as a hub for innovation and knowledge exchange. While these initiatives offer a promising path forward, some considerations require further discussion to ensure long-term success. Attracting and retaining talent necessitates not only competitive educational opportunities but also attractive career prospects and a stimulating research environment. Initiatives offering streamlined visa processes and residency permits are a positive step. However, an additional focus on fostering domestic innovation ecosystems, competitive industry salaries, and career development programs would further incentivise both domestic and international talent to contribute long-term to Kazakhstan's development. Secondly, document analysis suggests that some initiatives might unintentionally incentivise emigration by promoting intellectual migration for economic benefits. To mitigate this potential effect, it is crucial to strike a balance by enhancing domestic opportunities alongside programs attracting international expertise. This can ensure a net gain for Kazakhstan's human capital development.

## 7 CONCLUSIONS

To conclude, Kazakhstan's migration policy is a reflection of its strategic efforts to address the brain drain, enhance human capital development, and establish itself as a regional educational hub. The government is positioning itself to attract international talent, develop academic partnerships, and establish a competitive research and innovation environment by prioritising intellectual migration and educational immigration. However, sustained progress will depend on the successful implementation of these policies, continuous collaboration between key stakeholders, and the creation of attractive domestic career opportunities to retain talent.

The newly adopted Concept demonstrates a commendable commitment to cultivating a highly skilled and globally engaged workforce in Kazakhstan. By prioritising international collaboration, implementing effective talent retention strategies, and fostering a holistic approach to innovation, Kazakhstan can effectively translate these plans into tangible

advancements for its knowledge-based economy and long-term prosperity. Further analysis and policy development should ensure these initiatives not only attract international expertise but also create a compelling environment for domestic talent to thrive and contribute to the nation's growth.

The government's acknowledgement of the critical need for a strong scientific workforce and its plan to repatriate scientists working abroad demonstrate a shift in focus. This recognition of the value of intellectual migration, both in terms of regaining lost expertise and attracting new talent, is crucial for Kazakhstan's future. By fostering an environment conducive to research and collaboration between the government, academia, and the private sector, Kazakhstan can leverage intellectual migration to rebuild its scientific capacity and ensure a brighter future.

The findings of this study highlight the multifaceted nature of migration in Kazakhstan, where economic, social, political, and environmental factors collectively drive the population's mobility intentions. Economic concerns, particularly low wages and limited job opportunities, remain the primary drivers of emigration. Still, dissatisfaction with education quality and political factors such as corruption and human rights violations also play a critical role. Addressing these issues requires a holistic approach, where improvements in wages, job opportunities, educational support, and political reforms are prioritised. Policymakers must adopt a nuanced understanding of these migration drivers to create effective strategies that prevent talent drain, foster demographic stability, and enhance the nation's long-term prospects. This calls for balancing immediate economic remedies with structural reforms to sustain long-term confidence in the country's future. Kazakhstan can implement international best practices by investing in continuous education and skills development, ensuring professionals have opportunities for growth.

By actively attracting and integrating international students, Kazakhstan can cultivate a strategic talent pool to fuel its economic growth. This approach can also contribute to addressing demographic imbalances through targeted measures. Structuring educational institutions in line with international best practices will not only elevate the quality of education but also further strengthen Kazakhstan's position as a regional leader. Overall, Kazakhstan's focus on educational immigration presents a promising strategy for fostering economic development, promoting cultural exchange, and enhancing the nation's overall educational landscape. By implementing a well-designed and well-managed program, Kazakhstan can solidify its position as a regional hub for education and innovation.

## REFERENCES

1. Adu-Okoree BI and others, 'Reintegration of Return Migrants in Northern Ghana and Their Remigration Decisions: A Qualitative Study' (2023) 28(6) *The Qualitative Report* 1641, doi:10.46743/2160-3715/2023.5778.
2. Altynbassov B and others, 'Academic Tourism as an Emerging Tourism Industry in Kazakhstan' (2022) 13(6) *Journal of Environmental Management and Tourism* 2068.
3. Altynbassov B and others, 'The Establishment of International University Campuses as a Key Factor in the Development of Local Tourism in the Turkestan Region in Kazakhstan: Economic and Legal Aspects' (2021) 12(6) *Journal of Environmental Management and Tourism* 1454, doi:10.14505//jemt.v12.6(54).03.
4. Bayanbayeva A and others, 'The Transformational Role of Entrepreneurial Universities in Fostering Tourism Sector of Kazakhstan: Legal Documentary Analysis' (2023) 14(4) *Journal of Environmental Management and Tourism* 2046, doi:10.14505/jemt.14.4(68).16.
5. Beine M, Docquier F and Rapoport H, 'Brain Drain and Economic Growth: Theory and Evidence' (2001) 64(1) *Journal of Development Economics* 275, doi:10.1016/S0304-3878(00)00133-4.
6. Beine M, Docquier F and Rapoport H, 'Brain Drain and Human Capital Formation in Developing Countries: Winners and Losers' (2008) 118(528) *Economic Journal* 631, doi:10.1111/j.1468-0297.2008.02135.x.
7. Bhagwati J and Hamada K, 'The Brain Drain, International Integration of Markets for Professionals and Unemployment. A Theoretical Analysis' (1974) 1(1) *Journal of Development Economics* 19, doi:10.1016/0304-3878(74)90020-0.
8. Bhardwaj B and Sharma D, 'Migration of Skilled Professionals across the Border: Brain Drain or Brain Gain?' (2023) 41(6) *European Management Journal* 1021, doi:10.1016/j.emj.2022.12.011.
9. Bokayev B, 'Beyond Borders: Understanding Intellectual Migration among Kazakhstani Graduates of Foreign Universities' (2023) 14(3) *Journal of Social Studies Education Research* 167.
10. Bokayev B and others, 'Migration Trends in Kazakhstan: Exploring Migration Causes and Factors' (2021) 22(2) *Central Asia and the Caucasus* 150, doi:10.37178/ca-c.21.2.13.
11. Bokayev B, Torebekova Z and Davletbayeva Z, 'Preventing Brain Drain: Kazakhstan's Presidential "Bolashak" Scholarship and Government Regulations of Intellectual Migration' (2020) 19(3) *Public Policy and Administration* 25, doi:10.5755/j01.ppa.19.3.27764.
12. Bowen GA, 'Document Analysis as a Qualitative Research Method' (2009) 9(2) *Qualitative Research Journal* 27, doi:10.3316/QRJ0902027.



13. Chuang JA, 'The International Organization for Migration and New Global Migration Governance' (2022) 63(2) *Harvard International Law Journal* 401.
14. Dalmatov K and others, 'Addressing Human Rights Violations in the Criminal Justice System of Kazakhstan: The Role of the Prosecutor's Office and a Call for Legislative Reforms' (2024) 7(3) *Access to Justice in Eastern Europe* 63, doi:10.33327/AJEE-18-7.3-a000323.
15. Docquier F and Rapoport H, 'Quantifying the Impact of Highly-Skilled Emigration on Developing Countries' in Boeri T and others (eds), *Brain Drain and Brain Gain: The Global Competition to Attract High-Skilled Migrants* (Oxford Academic 2012) 211, doi:10.1093/acprof:oso/9780199654826.001.000.
16. Dustmann C, Fadlon I and Weiss Y, 'Return Migration, Human Capital Accumulation and the Brain Drain' (2011) 95(1) *Journal of Development Economics* 58, doi:10.1016/j.jdeveco.2010.04.006.
17. Ewers MC and others, 'Skilled Migration to Emerging Economies: The Global Competition for Talent beyond the West' (2022) 19(2) *Globalizations* 268, doi:10.1080/14747731.2021.1882816.
18. Jonbekova D and others, 'How International Higher Education Graduates Contribute to Their Home Country: An Example from Government Scholarship Recipients in Kazakhstan' (2023) 42(1) *Higher Education Research and Development* 126, doi:10.1080/07294360.2021.2019200.
19. Kappassova G and others, 'Migration Processes in the Republic of Kazakhstan: Regularities, Problems, and Prospects' (2024) 59 *Two Homelands* 107, doi:10.3986/2024.1.07.
20. Li W and others, 'Intellectual Migration: Considering China' (2020) 47(12) *Journal of Ethnic and Migration Studies* 2833, doi:10.1080/1369183X.2020.1739393.
21. Li W, Lo L and Lu Y, 'Introduction: The Intellectual Migration Analytics' (2023) 49(18) *Journal of Ethnic and Migration Studies* 4577, doi:10.1080/1369183X.2023.2270314.
22. Li X, 'China-Born Scholars' Intellectual Capital: A Network Approach' (2023) 49(18) *Journal of Ethnic and Migration Studies* 4681, doi:10.1080/1369183X.2023.2270337.
23. Lu Y, Jean J and Ma L, 'Comparing Chinese Academic Returnees in Chengdu and Guangzhou: Reasons for Return, Choice of Destination and Onward Migration Intention' (2023) 49(18) *Journal of Ethnic and Migration Studies* 4747, doi:10.1080/1369183X.2023.2270342.
24. McAuliffe M and Oucho LA (eds), *World Migration Report 2024* (IOM 2024).
25. McAuliffe M and Triandafyllidou A (eds), *World Migration Report 2022* (IOM 2022).
26. Oliinyk O and others, 'Integrated Assessment of the Attractiveness of the EU for Intellectual Immigrants: A Taxonomy-Based Approach' (2022) 182(7) *Technological Forecasting and Social Change* 121805, doi:10.1016/j.techfore.2022.121805.

27. Oliinyk O and others, 'The Impact of Migration of Highly Skilled Workers on the Country's Competitiveness and Economic Growth' (2021) 17(3) Montenegrin Journal of Economics 7, doi:10.14254/1800-5845/2021.17-3.1.
28. Perna LW, Orosz K and Jumakulov Z, 'Understanding the Human Capital Benefits of a Government-Funded International Scholarship Program: An Exploration of Kazakhstan's Bolashak Program' (2015) 40 International Journal of Educational Development 85, doi:10.1016/j.ijedudev.2014.12.003.
29. Prato M, 'The Global Race for Talent: Brain Drain, Knowledge Transfer, and Growth' (SSRN, 27 November 2022) <<https://ssrn.com/abstract=4287268>> accessed 10 September 2024.
30. Schwab K (ed), *The Global Competitiveness Report: Insight Report* (World Economic Forum 2019).
31. Simon Á, 'Intellectual Migration and Economic Thought: Central European Émigré Economists and the History of Modern Economics' (2012) 38(3) History of European Ideas 467, doi:10.1080/01916599.2012.681524.
32. Tan Y and Li W, 'Skilled US Migrants in the Pearl River Delta Region: The Rise of an Intellectual Gateway in China' (2023) 49(18) Journal of Ethnic and Migration Studies 4768, doi:10.1080/1369183X.2023.2270343.
33. Tan Y and others, 'Intellectual Capital and Student Mobility' (2023) 49(18) Journal of Ethnic and Migration Studies 4641, doi:10.1080/1369183X.2023.2270332.
34. Tsakalerou M and Abilez A, 'The Paradox of Kazakhstan: Linear vs Harmonic Innovation' (2022) 217 Procedia Computer Science 1734, doi:10.1016/j.procs.2022.12.373.
35. Zatonatska T and others, 'Impact Factors for Immigration to Spain' (2024) 7(1) Access to Justice in Eastern Europe 264, doi:10.33327/AJEE-18-7.1-a000119.
36. Zhanpeisova K and others, 'Brain Drain from the Republic of Kazakhstan as Analyzed by Political Scientists' (2020) 21(4) Central Asia and the Caucasus 142, doi:10.37178/ca-c.20.4.14.

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## АНОТАЦІЯ УКРАЇНСЬКОЮ МОВОЮ

Дослідницька стаття

### ДОСЛІДЖЕННЯ ІНТЕЛЕКТУАЛЬНОЇ ТА ОСВІТНЬОЇ МІГРАЦІЇ В КАЗАХСТАНІ: ДОКУМЕНТАЛЬНИЙ АНАЛІЗ

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#### АНОТАЦІЯ

**Вступ.** Вирішення проблеми «відтоку мізків» і сприяння розвитку людського капіталу мають вирішальне значення для підтримки довгострокового економічного зростання, інноваційного потенціалу та глобальної конкурентоспроможності країни. Казахстан зіткнувся зі значним «відтоком мізків», особливо після розпаду Радянського Союзу, оскільки багато кваліфікованих фахівців шукали кращих можливостей за кордоном. Незважаючи на зусилля уряду, спрямовані на те, щоб утримати таланти, країна продовжує відчувати негативне сальдо міграції, причому значна частина емігрантів є високоосвіченими і кваліфікованими спеціалістами. У цьому дослідженні розглядаються виклики, пов'язані з «відтоком мізків», та оцінюються наявні політичні ініціативи Казахстану, спрямовані на вирішення проблеми інтелектуальної міграції та сприяння розвитку людського капіталу.

**Методи.** У статті застосовується якісний підхід із використанням документального аналізу для вивчення інтелектуальної та освітньої міграції в Казахстані. Методологія передбачає систематичний перегляд ключових державних програмних документів і звітів, таких як Концепція міграційної політики Республіки Казахстан на 2023-2027 роки. Документальний аналіз було обрано через його здатність забезпечити глибоке розуміння урядових ініціатив і політичних меж, що дозволило оцінити їхню довгострокову ефективність. Контент-аналіз був використаний для того, щоб виявити повторювані теми і політичні зміни, пов'язані з розвитком людського капіталу та «відтоком мізків».

**Результати та висновки.** Отримані результати підкреслюють зусилля, яких докладає уряд, для того, щоб залучити кваліфікованих фахівців, утримати вітчизняні таланти і сприяти міжнародній співпраці за допомогою спрощення візового режиму, академічного партнерства та створення міжнародних філій. Аналіз показує освітню імміграцію як основний компонент міграційної стратегії Казахстану, що формується під впливом регіональних чинників і геополітичних міркувань. Незважаючи на ці зусилля, дослідження визначає наявні проблеми у створенні привабливих можливостей для кар'єрного зростання в країні та конкурентного дослідницького середовища, що мають вирішальне значення для довгострокового утримання талантів. За допомогою передового

міжнародного досвіду і сприяння співпраці між урядом, академічними колами та промисловістю, Казахстан може посилити свої позиції в глобальній економіці знань, що одночасно вирішить демографічні та економічні проблеми. Стаття завершується обговоренням потенційних політичних наслідків та рекомендацій щодо підтримки розвитку людського капіталу Казахстану в контексті глобальних тенденцій інтелектуальної міграції.

**Ключові слова:** освітня міграція, інтелектуальна міграція, «відтік мізків», розвиток людського капіталу, Казахстан.