



Government scholarships for international higher education: pathways for social change in Kazakhstan

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Abstract

Globally, scholarships for international higher education play a critical role in human capital development. While substantial research has documented the benefits such scholarships provide for individuals, their impact on the creation of pathways for social change remains under-researched. This paper bridges this gap by examining the extent to which a government scholarship for international education has created pathways for social change in Kazakhstan. Data were collected through interviews with 67 scholarship alumni. Drawing on Dassin et al.'s (2018) framework for pathways to social change, the findings reveal that international education fosters social change in Kazakhstan in four ways. First, the scholarship program develops local talent and builds agents of change. Second, it widens access to international education, particularly for individuals from marginalized communities, who would otherwise lack access owing to their scarce financial resources. Third, the program develops alumni's cosmopolitan and intercultural competencies and strengthens international collaborations. Finally, it creates associations and groups through which alumni can collectively contribute to society. The findings highlight that while the interviewed alumni foster strong patriotic feelings and are determined to contribute to the prosperity of their country, underdeveloped industries, economic volatility, and top-down bureaucracy in workplaces limit their potential contributions to social changes. These findings may help policymakers and administrators to reconsider and improve on the design and structure of scholarship programs.

Keywords Government scholarship · Higher education · International education · Kazakhstan · Social change · Scholarship programs

Introduction

International scholarship programs provide citizens of low- and middle-income countries with the opportunity to pursue a high-quality international education (Campbell et al., 2021a). The rationale behind these scholarships differs based on the expectations and

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goals of scholarship funders. Hoping that graduates of international education programs will boost the economy (Dassin & Navarrete, 2018; Perna et al., 2014), spur innovation (Hilal, 2013), foster human capital development (Campbell, 2017; Dassin & Navarrete, 2018; Perna et al., 2014), and improve the home country's image (Hilal, 2013), nations have invested heavily in overseas scholarships for their citizens. On the contrary, host countries grant scholarships to foreign nationals to promote international exchange and cooperation (Hilal, 2013; Latief & Lefen, 2018), create a positive image of their country, extend political influence and strengthen bonds with other nations (Abimbola et al., 2016; Boeren, 2018), and prepare graduates to assist socioeconomic development at home (Amazan et al., 2016; Franken et al., 2016; Latief & Lefen, 2018).

Many international scholarship programs focus on the prospective economic benefits; only a few target social change, including the Ford Foundation International Fellowships Program (2001–2013) and Mastercard Foundation Scholars Program. Both these programs aim to improve civic engagement, promote democratic values, and nurture leaders who can facilitate social change for local communities (Clift et al., 2013; Cosentino et al., 2019; Dassin & Navarrete, 2018). Furthermore, these scholarships purposefully target disadvantaged and marginalized individuals who demonstrate an aptitude for leadership and commitment to social justice and who are, therefore, more likely to foster social change after graduation (Boeren, 2018; Clift et al., 2013; Waluyo et al., 2019).

Following the dissolution of the Soviet Union in 1991 and subsequent socioeconomic challenges, Kazakhstan required a skilled workforce to reform its economy. Considering education as a key vehicle for human capital development, Kazakhstan's government established the *Bolashak* program ("Future" in Kazakh) in 1993. This scholarship program aims to develop human capital by constructing a pool of talented young people who can facilitate changes and innovations, thereby contributing to the development of the country. To date, it has awarded over 14,000 full scholarships for international undergraduate, graduate, and internship programs in fields that are considered important for economic development.

Investing in Bolashak scholarship represents significant public investment. Since 2011, and after the establishment of Nazarbayev University—a well-resourced university with English-language instruction—the Bolashak program has discontinued scholarships for undergraduate programs; it primarily focuses on graduate programs and internships. Bolashak program's alumni are contractually obliged to return to Kazakhstan and work for three to five years—depending on the nature and length of the program as well as their location—upon their program's completion.

Although the Bolashak program widens Kazakhstanis' access to international education at reputable universities, it has been criticized for its high expenditure, employment issues of its alumni, and potential brain drain (Dubova, 2020; Ramazanov, 2018; Temirov, 2019). However, despite the significant financial investment in the program, research on the contribution of its alumni, particularly toward social change, remains scarce. The paper bridges this gap by examining how the Bolashak program creates pathways for social change in Kazakhstan. Two research questions are addressed. How do government scholarships for international education create pathways for social change? What barriers do alumni encounter in contributing toward social change in their home country?

Therefore, this study enhances the literature on how scholarships for international education influence social change. Moreover, it sheds light on the issues encountered by international education program's alumni in developing countries and those in transition upon returning home, and how they navigate and cope with various socioeconomic and cultural challenges. The findings can help relevant policymakers and administrators to reconsider and improve the design and structure of scholarship programs. In other words, the study

contributes to global research by bridging a gap in the literature on the outcomes of government scholarship programs for international education by situating the data in the post-Soviet context—an under-researched area.

Background and theoretical framework

Rising global inequality has triggered an acute need for social change. Research on scholarship programs defines social change as shifts in society (Campbell & Neff, 2020) that “reduce injustice and increase well-being in all forms” (Dassin et al., 2018, p. 5), including at the economic, social, cultural, political, and environmental levels. International education creates various pathways for social change (Clift et al., 2013; Dassin et al., 2018; Waluyo et al., 2019). Some scholarships contribute toward social change by providing discriminated and underserved populations access to a high-quality international education (Clift et al., 2013). In turn, international education has nurtured agents of social change (Dassin et al., 2018). Long-term exposure to multicultural environments can bolster tolerance (Crossman & Clarke, 2010; Holmes, 2015 as cited in Loerke, 2018), empathy, and compassion (Crossman & Clarke, 2010), thus making international education graduates more committed toward creating social benefits for their communities. In addition, exposure to diverse cultures and ways of living during their study period helps alumni of international universities to reconsider their own culture, values, and identity; they essentially develop “cosmopolitan competencies” (Gu & Schweisfurth, 2015). This fact is expressed in their cross-cultural sensitivity (Waluyo et al., 2019) and ability to view factors from multiple angles (Tung & Lazarova, 2006). Hence, they tend to experience a sense of obligation and growing desire to give back to their home country and society (Arhin-Sam, 2019 as cited in Campbell et al., 2021b; Baxter, 2019).

International education graduates contribute to social change in their home countries through various avenues (Campbell et al., 2021a; Chankseliani, 2018). They transfer new technologies from the host country (Makundi et al., 2017; Perna et al., 2014), use their knowledge and skills to reform and innovate healthcare and education systems, and address environmental issues at home (Amazan et al., 2016; Campbell, 2019; Enkhtur, 2019). Furthermore, international education graduates foster cross-cultural communication and international engagement (Dassin et al., 2018; Hilal, 2013; Lin, 2016), address issues of justice by promoting democratic values (Atkinson, 2010; Campbell et al., 2021a; Chankseliani, 2018), and stand up for the rights of marginalized communities (Campbell, 2019; Campbell et al., 2021a; Dassin et al., 2018).

Recent studies have demonstrated that international education graduates’ social networks can help promote social change. Such networks include their professional connections (Dassin & Navarrete, 2018) and alumni networks (Amazan et al., 2016; Campbell, 2016). They can also provide resources (Dassin & Navarrete, 2018), access to supervisors and colleagues with international experience (Amazan et al., 2016; Campbell, 2017), and positive attitudes and patience (Abeuova & Muratbekova-Touron, 2019; Amazan et al., 2016; Franken et al., 2016). However, research has revealed that graduates’ contribution often depends on the type of their workplace. For instance, graduates working for NGOs, private companies, and international organizations enjoy greater autonomy and professional mobility, and a more supportive workplace (Amazan et al., 2016; Bonilla & Kwak, 2015; Campbell et al., 2021b). Meanwhile, those in the civil service sector have

relatively more opportunities to “influence social change and policymaking from within government” (Campbell et al., 2021b, p. 7).

Research demonstrates that the contributions of international education graduates are often impeded by an array of economic, social, cultural, political, and workplace-related factors. Economic factors limit graduates’ ability to induce changes. They are low pay (Campbell, 2017, 2019; Enkhtur, 2019), limited domestic labor markets including underdeveloped industries (Abeuova & Muratbekova-Touron, 2019; Bonilla & Kwak, 2015; Makundi et al., 2017), lack of jobs (Campbell et al., 2021b), and overqualification of alumni for the available local positions (Dassin & Navarrete, 2018). Similarly, social factors reduce the opportunities for graduates to apply their skills and knowledge. They are conflicting expectations among local governments, host institutions, and family members (Baxter, 2019); the lofty expectations of local employers (Baxter, 2019); and limited access to resources in rural areas (Abimbola et al., 2016). Moreover, cultural issues create additional barriers for graduates to address social issues, for example, colleagues’, employers’, and government officials’ resistance toward change (Campbell, 2017; Dassin & Navarrete, 2018), nepotistic hiring practices (Campbell et al., 2021b), and bureaucracy (Abeuova & Muratbekova-Touron, 2019; Amazan et al., 2016; Campbell, 2017). Furthermore, a home country’s negative political environment (Campbell, 2016), corruption (Campbell, 2019; Dassin & Navarrete, 2018), and political instability (Campbell, 2019; Dassin & Navarrete, 2018; Enkhtur, 2019) pose additional challenges for international education graduates to promote change in their communities. In fact, poor work environment, including a lack of equipment, outdated technology, and limited access to resources (Bonilla & Kwak, 2015; Makundi et al., 2017; Tung & Lazarova, 2006), prevailing local cultural and business norms (Abeuova & Muratbekova-Touron, 2019; Enkhtur, 2019; Franken et al., 2016), professional jealousy (Amazan et al., 2016); non-merit-based promotion practices, and colleagues’ poor work ethics (Campbell et al., 2021b) restrict graduates from implementing new ideas and innovations.

This study draws on human capital theory (Becker, 1994) and Dassin et al.’s (2018) framework of pathways to social changes to analyze the data. These theories enable the examination of the investments made in government scholarship programs and the multiple pathways provided by international education for social change and development. Human capital theory suggests that investment in education results in better knowledge and skills, which further ensures increased labor market success, workplace productivity, and socioeconomic development at the country level. Globally, many scholarship programs for international education are based on human capital theory, including the King Abdullah scholarship program in Saudi Arabia, China’s National Mobility and Elite Bachelor scholarship programs, and Kazakhstan’s Bolashak program. As mentioned earlier, these programs aim to develop knowledge and skills and construct a talented workforce. However, the analysis presented above indicates that the direct links between investment in education, better employment outcomes, and productivity remain contested. The findings of this study also question the assumptions of policymakers: there is a direct relationship between investment in education, greater productivity, and development of countries.

Dassin et al. and’s (2018, p. 5) framework highlights five pathways through which scholarship alumni foster social change:

1. The “change agent” pathway, wherein individuals generate social change through their individual actions

2. The “social network” pathway, wherein alumni form associations and groups to foster social change through collective action
3. The “widening access” pathway, wherein scholarship programs contribute by improving social mobility by broadening access to international education for other students, particularly those from marginalized communities
4. The “academic diversity” pathway, wherein alumni influence their host institution to become more inclusive of non-traditional students
5. The “international understanding” pathway, wherein scholarship programs contribute to better inter-cultural communication, tolerance, and cooperation between cultures and countries

These five pathways are used to categorize and analyze the study participant’s accounts of ways to generate social change.

Methods

This study draws on semi-structured interviews conducted with 67 Bolashak scholarship recipients who graduated between 2015 and 2017, who were selected using purposeful maximum variation sampling based on five criteria: (a) those who received a full government scholarship through the Bolashak program, (b) those who held a full-time job, (c) those who resided in Kazakhstan, (d) those who studied at the master’s degree level, and (e) those who had been in the job market for at least three years. As the contribution of scholarship alumni varies by field, the participants were selected from various disciplines. All the participants completed their master’s degree at reputable international universities, predominantly in the UK, the USA, and Australia. At the time of the interviews, all the participants had been working as full-time employees in Kazakhstan for at least three years.

Subsequently, invitation letters were emailed to around 350 prospective participants in Kazakh, Russian, and English. In total, 35 alumni from the field of social science (including economics, public policy, sociology, education, finance, tourism, and management) and 32 from STEM studies (including chemistry, biology, nanotechnology, nanoelectronics, engineering (various specializations), aerospace, and computer science) were interviewed between March 2020 and March 2021 (Table 1).

An interview protocol was developed based on a review of the international and local literature that identified the factors that influence international education graduates’ contribution upon returning to their home country. The interview questions were categorized around four themes: (a) experience in transitioning from university to the job market, (b) impact of international education on individuals’ development, (c) contribution of the alumni to their workplace and society, and (d) barriers to applying their skills and contributing to society. The interviews were conducted in Russian and lasted between 60 and 90 min. Although the participants were permitted to speak in Kazakh, Russian, or English, Russian was the preferred choice for all. Owing to the challenges posed by the COVID-19 pandemic, the interviews were conducted and recorded online via Zoom. The interviews were then transcribed manually and analyzed using inductive and deductive coding and thematic analysis (Fereday & Muir-Cochrane, 2006). Initial codes such as skills, intercultural competencies, promotion, leadership, improvement of systems, mobility, equal access, capacity building, networking, examples of difficulties faced, and recommendations were developed from the transcripts. These codes

Table 1 Demographic details of participants

Gender	Male	39
	Female	28
Field of study	STEM	32
	Social science	35
Type of organization	Civil service	8
	Higher education institution	11
	International organization	14
	Private company	18
	National company	4
	Quasi-public company	12
Type of position	Top management	13
	Middle management	17
	Junior management	34
	Entrepreneur	3
Location	North	40
	South	15
	West	12

were revised to generate overarching themes (i.e., employment experience, impact of international education on participants' development, contribution of alumni, and drivers and barriers to alumni contributions). After a careful reflection of these themes in connection with human capital theory and Dassin et al.'s (2018) framework on pathways for social change (development of local talent, change agent pathway, widening access pathway, international understanding pathway, and social network pathway), final themes were developed to analyze the data. NVivo was used to code the data based on the final list of codes. The transcripts were pseudonymized to protect the interviewees' identities and specific details were omitted from their pseudonyms to protect their confidentiality.

The study was approved by the Institutional Research Ethics Committee. Confidentiality, voluntary participation, and the ability to ask questions or withdraw from the study were ensured at all stages. Protection of the participants from any possible harm was also prioritized.

Although every attempt was made to mitigate any limitations, this study has several. First, the data on alumni contributions is self-reported; thus, triangulating the data was challenging. To gain a better understanding of the themes, attempts were made to ask participants to bring specific examples and details of how they contributed and why their contribution was unique or would not have been possible without international education. Second, considering that interviews were held online due to the COVID-19 pandemic, it was hard to detect non-verbal cues, especially in the few cases in which participants did not agree to be video-recorded or where only audio recording was possible due to internet connectivity issues. Third, participants were not asked directly about their ethnicity, sexual orientation, or whether they had a disability; therefore, conclusions cannot be drawn on whether graduates' ability to make changes were impeded by these factors.

Results

The findings of this study demonstrate that international education has created pathways for social change in Kazakhstan through the development of local talent, strengthening of institutional capacity, protection of the environment, and improvement of public and private responses to profound socioeconomic and cultural challenges. The data reveals that international education alumni are changing individuals, workplaces, and societies by disrupting the status quo, reducing injustice, and improving well-being and quality of life. Nevertheless, they continue to encounter and fight numerous socioeconomic and cultural challenges in the workplace and broader society. This section presents the ways in which international education contributes to the development of local skills and talent, followed by the multiple pathways through which international education graduates influence and foster social change. It demonstrates that despite the numerous benefits of the scholarship program, economic, social and cultural environment and the program's characteristics continue to place barriers for the alumni in fostering social change.

Development of local talent

For the participants, improvement and advancement of their knowledge and skills constituted the key benefit of international education. They used it to influence their institutions, organizations, and communities. Studying overseas and the exposure to experiential learning approaches enabled them to develop critical and analytical thinking skills. The alumni specifically valued the industry experience of overseas faculty, which helped them understand the practicality of their area of specialization. By contrast, they primarily gained theoretical knowledge at local universities in Kazakhstan.

Most of our lecturers had very good finance experience working for brokerage companies or were fund managers. They could tell you how things work in practice, rather than just telling you the theory from the book like here. At my local university, none of the lecturers worked in finance companies. They graduated from university and straight away started teaching, and sometimes they taught you from old books. (P10, Finance)

STEM graduates valued the close engagement of their overseas university with industries. They believed that it helped in structuring courses that allowed students to gain both theoretical knowledge and practical experience. A graduate from a petroleum and engineering program (P5, STEM) noted that the industries associated with his institution provided free licenses for students to analyze their data for coursework. Essentially, the focus on gaining practical experience facilitated the ease of transitioning into employment and applying their skills in the workplace.

Moreover, the student-centered approach to learning, and the emphasis on engagement and teamwork with diverse groups of students, enhanced their subject knowledge, English language, research, communication, project management skills, and intercultural competencies.

Sessions were delivered in an interesting manner through debates, discussions, and voicing opinions. Unlike here in Kazakhstan, there was no focus on rote memorization. (P35, Project Management)

The development of advanced subject-specific knowledge was specifically notable among the STEM alumni. The majority claimed that the lack of updated equipment and software within laboratories limited literature in the Kazakh language, while the underdevelopment of certain industries in Kazakhstan hampered the dissemination of relevant subject-specific knowledge. The STEM alumni heavily criticized the structure and relevance of courses at home. While praising their overseas master's program for its relevance to industry, an alumnus from an aerospace technology program (P29, Space Technology) said that in Kazakhstan, such specialization is "in a state of mess," because it incorporates irrelevant courses and lacks required resources. The accounts of STEM alumni suggested that they would not have gained the same knowledge and skills in their field without studying overseas.

The unique aspect of my study overseas was the experience of working in a well-equipped laboratory. I learned how to work on a cable microscope. Until then, I hadn't had the chance to do so, as my university here [in Kazakhstan] did not have such equipment. I learnt how to work with cancer cells, conducted experiments individually, and wrote scholarly articles. (P36, Chemistry)

The majority of the participants noted that studying overseas had taught them research skills, showed them how to find information independently, and helped them design and manage projects. It made them more independent and helped them become "quick learners" and develop a range of transferable skills (e.g., communication, presentation, and time management skills). By contrast, the faculty at their home universities delivered "plain lectures."

These findings demonstrate that studying overseas and socializing with students from diverse backgrounds and cultures made several participants feel that they had returned home as a "different person," with a greater sense of maturity and responsibility, higher confidence, and a more flexible and adaptable mindset. Most believed that their international education had "changed their mindset" and "broadened their outlook," which encouraged them to "reconsider their priorities and values." Some of the alumni noted that developing a comparative perspective enabled them to identify areas that required improvement—that were previously considered unproblematic—in Kazakhstan, for example, gaps in processes/systems and approaches to work. The participants became more comfortable "suggesting alternative views," "saying no," and "being unafraid to challenge senior leadership" in their workplaces.

My views drastically changed when I saw how my peers from European countries think. They had a great influence on us. I learned how to think critically, a skill I didn't have before studying overseas. You literally become a different person. You start seeing all the mess and start realizing where the problems stem from. Before, I didn't even notice some of the issues. (P29, Space Technology)

The participants also indicated a strong change in their values. International education markedly impacted their lives and identities; they became more conscious of their lifestyles. One of them mentioned that after studying overseas, they "became more eco-friendly, more supportive of local businesses instead of going to Costa and Starbucks, and more engaged in volunteering" (P28, Finance). Overall, they believed that the skills, knowledge, and experiences gained overseas encouraged them to become "peaceful warriors who fight for the development of their country" (P24, Filmmaking).

Pathways to social change

A strong desire to help develop their country and foster positive change was evident in most of the participants' accounts. They expressed gratitude for the opportunity to receive a high-quality international education and had a sense of responsibility to "give back" to their communities and country. Dassin et al.'s (2018) framework of pathways to social change was used to analyze these accounts. The "academic diversity" pathway has been omitted because the study did not find sufficient corresponding data.

The change agent pathway

The change agent pathway was one of the most frequently mentioned pathways through which the participants fostered social change in Kazakhstan. Several participants demonstrated a strong desire to be "leaders who can bring about positive changes to their society" rather than being mere followers. The alumni contributed to social change in Kazakhstan by (a) developing their workplaces, (b) volunteering and conducting charity work in their communities, and (c) engaging in environmental protection activities.

Overall, the Bolashak alumni had an advantage in the job market over graduates from local universities. Despite the several challenges (Jonbekova et al., 2021, 2023; Perna et al., 2014), some of them were promoted to senior positions and others were offered leadership roles. It enabled them to bring about changes and innovate systems and practices within their workplaces, specifically through the optimization and automation of work and simplification of processes. For instance, six participants (P10, P11, P14, P16, P23, and P31) working in the finance sector noted that they digitalized and automated the accounting processes in their company, which removed human error and expedited the collation of reports. They stressed that such improvements increased the speed of decision-making, expedited responses to clients, minimized expenses, removed unnecessary work, and saved resources. Similarly, a participant working in the transportation sector (P31, Finance) stated that they improved the technical process of traffic management and customer service for passengers, which helped the employees to focus on priority areas and increase their productivity.

Before, everything was printed, even documents up to 200 and 300 pages, which were taken to different departments for approval and signature. My key contribution was to introduce a digital system for signing papers so that documents could be reviewed and approved electronically. This increased the efficiency of work as well as decreased the waste of paper and my colleagues' time. (P20, Computer Science)

Improvement legislation and policy documents were another important contribution by a participant who worked in the civil service sector. Other alumni mentored colleagues by introducing more up-to-date software, systems, and practices. Most of the participants who opened their own businesses stated that they were not only profitable but were also able to provide jobs to others. One such participant, who opened a company that provides filtered drinking water to offices and schools, noted that this business enabled them to create jobs, provide clean water systems in Kazakhstan, promote a healthy lifestyle, and teach people about eco-thinking by using less bottled water and reducing plastic waste (P32, Engineering). As stated earlier, several participants became more conscious of environmental protection and attempted to promote it upon returning to Kazakhstan. For instance, they started avoiding plastic bags and promoted recycling at home and work.

The widening access pathway

The widening access pathway was the second most frequently mentioned pathway for social change. For example, the participants facilitated the improvement of social mobility of families who could not afford international education. They believed that government scholarships for international education were a tool for social improvement that “gave hope to young people from working-class and rural areas.”

... when people saw someone like me coming from a working class background receiving a Bolashak scholarship, they started hoping that it is a transparent program that provides equal opportunities to everyone irrespective of their socio-economic background (P12, Media and Public Relations)

Many participants noted that the program allowed young people from villages, who lacked the “connections, money, and opportunity,” to pay for an international education to access quality education. The feeling of obligation and the willingness to “give back” to their communities compelled the participants to use their knowledge and skills to broaden others’ access to international education. In addition to being a role model for their friends’ and families’ children by volunteering and conducting charity work, the participants also mentored school students on applying for international education, finding scholarships, and completing free online courses in various disciplines. Some visited orphanages and schools to talk to about grants, scholarships, and opportunities for studying overseas or taught English. Having realized the importance of equal access to education for all, those who held leadership positions within schools and universities introduced scholarships, grants, and discounted rates for students who could not afford to pay for their education. Two of the alumni helped broaden access to education for individuals with special needs. Another helped in the development of an “atlas for professionals with special needs,” which enlists the types of jobs and skills possessed by various groups of individuals with special needs and their rights to employment (P20, Education). The alumni noted that developing such documentation was crucial in Kazakhstan because employers are reluctant to employ individuals with special needs and often discriminate against them. Another alumni who worked for a vocational education institution (P3, Education) designed a course on inclusive education based on which 2000 teachers were trained across Kazakhstan; it facilitated the development of a more inclusive educational environment.

Having grown up in Kazakhstan—a traditional society where gender stereotypes remain strong and women are mainly seen as caregivers—the female participants altered their views of the role of women in society and stated that studying overseas and seeing other women pursue successful careers enhanced their confidence. Many of them said that they used this experience and confidence to encourage other girls to believe in themselves and pursue international education opportunities and careers.

Before I thought that I must get married first and that having a career and studying further are secondary matters. I was very shy and didn’t believe in myself. After studying in the UK, I was like “oh my God.” I graduated from University College London. It’s one of the top universities and so other stuff is not so difficult for me. It changed my personality and values. Now I believe in myself. (P17, Education)

The international understanding pathway

International education, particularly the experience of studying overseas with diverse students from different countries, cultures, and traditions, equipped the participants with cosmopolitan and intercultural competencies. Exposure to their peers' way of thinking and exchanging knowledge and experiences influenced their outlook and enabled them to view things from different perspectives. A participant noted that "what was normal before, you start seeing it differently and question why is it not like this, why not simplify it, why not do it differently" (P33, Public Administration).

The development of intercultural communicational skills and English language proficiency and the experience of working with foreigners helped some of the participants to initiate and strengthen international collaborations in their workplace. For instance, two participants attracted foreign investment for their organization through the friends they made while studying overseas. Those who worked for international organizations noted that improving their intercultural communication skills enabled them to work efficiently with foreign colleagues and increase productivity.

Most notably, international education helped the participants to develop a greater tolerance and openness toward people from other groups, cultures, and issues that were not perceived as "normal" before studying overseas. Many believed that studying overseas "widened their horizon," "enabled them to develop greater respect toward other nationalities," and helped them become more tolerant regarding "taboo topics" in Kazakhstan.

For instance, there you see people with different hair colors, piercings, tattoos, and you start viewing it as a normal thing. The same goes for the LGBT community. We had LGBT students in our classes and interacted with them, and your attitude changes and you become more tolerant, realizing that they are no different from other people. (P12, Media and Public Relations)

Some of the Bolashak graduates viewed their advocacy for and promotion of tolerance toward the LGBT community as a contributing factor for social change. For instance, a participant who studied social work (P6, Social Work) started writing and attending podcasts about the importance of upholding human rights and accepting LGBT people in the society. Similar views were shared by other participants.

The social network pathway

While the alumni mainly contributed to social change at the individual level, some of the work was catalyzed through collective action through the official Bolashak Association and informal networks that they developed. For instance, certain mentorship programs for young people on studying overseas, learning English, and sharing information on scholarships at schools and orphanages were organized by a group of alumni under their own initiative. Similarly, during the COVID-19 pandemic, a group of alumni organized fundraising to help hospitals and families from poor backgrounds. A participant noted that their most notable contributions was collecting academic books and donating them to local libraries in Kazakhstan.

We collected the academic books of the Bolashak students upon the completion of their study and arranged to ship them to Kazakhstan. We gathered more than 100 books on various disciplines and donated them to local libraries, many of which cannot afford to buy new books. (P21, Education)

Although majority of the participants were keen on “giving back” and contributing to social change in Kazakhstan, the findings demonstrate that their contributions varied according to their field, type of organization/institution that they belonged to, and their position. Moreover, they were often impeded by the economy and development of the industry, management culture in the workplace, their location, and scholarship conditions.

Challenges to social change

Despite the participants’ efforts to contribute toward social change in their country, the STEM alumni encountered more barriers than their peers from the social sciences. The underdevelopment of some industries and economic volatility made it difficult to find jobs in their area of specialization. For instance, those who studied nanoelectronics, nanotechnology, astronautics, aerospace technology, biological engineering, and chemical engineering reported that they could not find a relevant job owing to the underdevelopment of their fields in Kazakhstan. They merely had access to teaching positions at universities. Alumni specializing in biology and chemistry noted that the possibility of pursuing research positions was also slim, as most laboratories at universities and research centers are poorly equipped. Hence, several STEM alumni could not use their skills. Some even feared that they would forget what they had learned.

The type of organization played an important role in the participants’ contributions toward social change. State agencies, institutions, and civil service organizations were the most challenging spaces for graduates to apply their knowledge and skills. Bureaucracy, the top-down management approach, and lack of resources and poor facilities presented barriers to catalyze changes in these workplaces. Participants who worked for state universities said that they were poorly equipped in terms of basic resources such as projectors in classrooms, smartboards, markers, and computer laboratories (P8, P12, P26, P31, P35, P6, P15, and P18). They also stated that faculty at state universities lack offices and share a common space, which makes research difficult. As highlighted in the excerpt below, these issues are exacerbated by the unnecessary bureaucratic system embedded in state agencies and institutions.

We had major issues with the facilities at the university, including problems with Internet connections and software support. The bureaucracy was another fundamental problem. We were forced to complete numerous pieces of paperwork or attend longwinded meetings and events. Often, we had to stay after work to do that. (P27, Information Technology)

The alumni reported a strong resistance toward change and “professional jealousy” within state agencies and the civil service sector. A participant who worked for a national company reported that he was often told “not to act too smart just because you have an international education” (P32, Engineering). Resistance to change was arguably expressed by older employers who, according to the participants, may have felt threatened and afraid of losing their jobs to younger employees. Similarly, others working in the civil service sector and state agencies reported that the workplace was characterized by a lack of trust, micromanagement, and dearth of support from employers, who often excluded them from the decision-making processes.

Our mentality is not yet ready to change ... Many employers think “I’m the boss, so I am right.” (P5, Education)

The participants' responses indicate the existence of a strong level of bureaucracy within the civil service sector, and national and state agencies. This aspect was deemed as a systematic issue across sectors. The alumni referred to such workplaces as embodying a Kazakhstani management style or an inherited Soviet management culture that demotivated employees. For some, such issues fostered indifference and loss of hope in their ability to bring about change.

Overall, the participants who worked in these sectors reported that they were largely involved in routine tasks and were not engaged in the decision-making processes. Only those who held senior positions had the opportunity to influence decisions and bring about change. By contrast, private sector firms, particularly international organizations, were the most appealing for the participants, who believed that such firms enabled them to apply their knowledge, introduce changes, and innovate.

Location also played a crucial role in determining the participants' ability to foster social changes. The responses of participants demonstrate that because of more job opportunities and higher salaries in cities such as Astana (the capital of the country), Almaty, Atyrau, Aktau, and Shymkent, the majority of them attempted to secure jobs there and avoided working in rural areas or smaller towns unless they were required to by the scholarship conditions. Many suggested that their contribution had been somewhat unequal across the country. However, as a participant noted, it was not surprising because urbanization is not a problem exclusively related to the Bolashak program; it is experienced worldwide, with "many trying to live in more populated and developed cities" (P28, Finance).

Some participants viewed the Bolashak program's conditions as barriers to the application of their ability to bring about change. While the majority believed that the compulsory service in specific sectors, mandated by the scholarship program, was indeed essential, several participants highlighted that the rigid conditions forced them to work in locations and sectors where they were unable to use their skills. Moreover, some believed that the scholarship requirements and the inability to stay overseas upon the completion of their program inhibited their opportunity to gain international experience, which could have further enhanced their skills and experience. Consequently, they believed that a better strategy is required to effectively avail the benefits of the Bolashak program. Some of the improvements suggested were more flexible approaches to fulfil their program conditions and greater support in mentoring and securing employment upon their return. However, despite all these difficulties, most of the alumni displayed strong patriotic feelings and were determined to contribute to the development of their country.

Some people say that the government owes them and should create this or that. We need to move away from that mentality and tell ourselves that this is our country, I live here and this where my children will live. Instead, we should ask ourselves, what can I do for my country? I believe Bolashak alumni have brought about a lot of positive social changes. I feel grateful to Elbasy and the Bolashak program for the knowledge and skills that it has enabled me to develop. (P13, Public Administration)

Discussion and conclusion

The findings of this study indicated that despite the challenges encountered by international education graduates upon returning to Kazakhstan, the Bolashak program contributes toward social change in the country. Drawing on Dassin et al.'s (2018) framework, it concluded that international education alumni foster social change through four pathways: (i) the change agent pathway, (ii) the international understanding pathway,

(iii) the widening access pathway, and (iv) the social network pathway. Many participants facilitated the development of new systems and practices, and addressed long-standing social concerns (e.g., environmental issues, human rights, and tolerance toward marginalized groups). However, underdeveloped industries, economic volatility, inherited Soviet management culture, and strict scholarship conditions prevented some from fostering social changes. In particular, graduates of the STEM fields encountered significant challenges owing to the underdevelopment of their area of specialization in Kazakhstan. Hence, some were forced to work outside their field of study and were unable to use their knowledge and skills.

The contextual issues encountered by international education graduates suggested that investment in education does not always increase productivity or improve a country's socioeconomic development, as proposed by human capital theory (Becker, 1994). The findings highlighted that the contribution of alumni depends on socioeconomic, cultural, and labor market factors. The results are consistent with those of recent studies from developing and transition countries—that unstable domestic politics, underdeveloped economies, limited jobs, low salaries, skill mismatches, lack of supportive policies, and resistance to change in workplaces impede international education graduates in addressing social issues in their home countries (Abeuova & Muratbekova-Touron, 2019; Abimbola et al., 2016; Amazan et al., 2016; Campbell, 2017; Enkhtur, 2019). However, in contrast to Campbell et al.'s (2021b) study in Ghana and Nigeria, which highlighted the existence of more opportunities for graduates working in the civil service sector to influence social change and policymaking from within government, the findings of this study demonstrated that such an influence is possible in Kazakhstan only if a graduate holds a senior position. In particular, the hierarchy and perceived Soviet bureaucratic management culture in civil services and national agencies hinder the alumni to promote change. Thus, while several issues faced by the alumni are common across developing countries and those in transition, cultural, historical, and contextual factors influence their ability to use their skills and drive change in society. This highlights the need to analyze the specificity of each context and the conditions and environment under which international education graduates are expected to foster social change.

The findings provide several key insights into the contribution of international education alumni to their home countries. In fact, the results can be used by relevant stakeholders to improve such programs. First, the design and conditions of scholarship programs must be improved to provide greater flexibility for alumni in terms of choosing their workplace and region, particularly those with new specializations (i.e., STEM). Second, scholarship programs should consider providing greater support during the post-study transition period, particularly in developing countries, where the alumni face numerous socioeconomic challenges. Third, there is a need to recognize that social change is a slow process and that the contributions of alumni will keep changing as they become more experienced and skilled in the workplace. Hence, future studies could examine longitudinal data to explore the long-term contributions that affect the alumni's contribution to their home country.

However, this study has some limitations. First, as the data on the contribution of the alumni were self-reported, triangulating the data was challenging. To better understand the themes, the participants were asked to provide detailed examples of how they contributed to social change and why their contribution was unique or would not have been possible without international education. Second, considering that the interviews were held online due to the COVID-19 pandemic, it was difficult to observe non-verbal cues, especially when participants refused to be video-recorded or when only audio recording was obtained because of poor Internet connection. Third, the participants were not

asked about their ethnicity, sexual orientation, or whether they had a disability; therefore, whether these factors impeded the graduate's ability to foster change remains ambiguous. Nevertheless, the study demonstrates that international education is a fundamental contributor and driver for social change. While the impact of international education depends on socio-cultural, economic, and political environment, the findings reveal that with an enabling environment, international education alumni can overcome barriers, address and solve urgent problems, and foster positive changes in their society.

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Declarations

Conflict of interest The author declares no competing interests.

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