

Research paper / Оригинальная статья  
<https://doi.org/10.51176/1997-9967-2023-1-87-102>  
 МРПТИ: 06.77.65  
 JEL: F22, J61, I21



## Internal Migration of Youth in Megacities as a Factor Influencing the Migration of Youth Abroad (on the Example of Almaty)

Aruzhan K. Jussibaliyeva<sup>a\*</sup>, Damira M. Iskakova<sup>a</sup>, Aigul A. Kurmanalina<sup>b</sup>, Botagoz B. Duisenbayeva<sup>c</sup>, Dariya B. Iskakova<sup>a</sup>

<sup>a</sup> LLP Scientific and Production Enterprise «Innovator», 2 Karatal str., 010010, Astana, Kazakhstan; <sup>b</sup> K.Zhubanov Aktobe Regional University (Zhubanov University), 34 A.Moldagulova ave., 030000, Aktobe, Kazakhstan; <sup>c</sup> Kazakh-Russian International University, 52 Aiteke bi str., 030006, Aktobe, Kazakhstan

**For citation:** Jussibaliyeva, A. K., Iskakova, D. M., Kurmanalina, A. A., Duisenbayeva, B. B. & Iskakova, D. B. (2023). Internal Migration of Youth in Megacities as a Factor Influencing the Migration of Youth Abroad (on the Example of Almaty). *Economics: the Strategy and Practice*, 18(1), 87-102, <https://doi.org/10.51176/1997-9967-2023-1-87-102>

### ABSTRACT

Internal migration is a transitional moment for young people to migrate abroad. This article aims to study city infrastructure as a factor influencing the internal migration of young people to big cities. This is one of the country's problems because it results in a «brain drain» abroad. There is a need to consider these factors. The study examines young people involved in internal migration who arrived in Almaty, aged 14 - 29. The methodology of this study is based on the method of Everett S. Lee. It analyzes factors influencing the internal migration of young people to cities with a population of one million. The article discusses objective factors that constrain or stimulate the migration process between regions of the Republic of Kazakhstan. These factors include the number of universities and colleges, the number of employers, medical and entertainment institutions, etc. These indicators were grouped into four factors: education, health care, entertainment and employment. For data analysis and processing, generalization and systematization methods were used. Data for factor estimation was obtained from the National Bureau of Statistics and other official sources for the period 2014 - 2021. Correlation-regression analysis was conducted using the SPSS program to determine the relationship between internal migration and city infrastructure indicators. Results obtained showed a significant relationship between the internal migration of young people and educational and health organizations. Education is seen as one of the main factors in the internal and external migration of young people. Therefore, the development of higher education and employment rates is essential to prevent brain drain.

**KEYWORDS:** Economics, Youth Migration, Internal Migration, Migration Factors, City Infrastructure, Strategy

**CONFLICT OF INTEREST:** the authors declare that there is no conflict of interest

**FINANCIAL SUPPORT:** the study was carried out within the framework of the grant funding IRN AR09261051 project, funded by the Science Committee of the Ministry of Science and Higher Education of the Republic of Kazakhstan "Research of issues of youth migration of Kazakhstan abroad: approaches to the regulation of educational and labor migration of youth".

### Article history:

Received 14 January 2023  
 Accepted 15 February 2023  
 Published 30 March 2023

\* **Corresponding author: Jussibaliyeva A.K.** – Candidate of Economic Sciences, Associate Professor, «Scientific and Production Enterprise «Innovator» LLP, 2 Karatal str., 010010, Astana, 87471188545, e-mail: [d\\_aruzhan2011@mail.ru](mailto:d_aruzhan2011@mail.ru)

## Жастардың мегаполистердегі ішкі көші-қоны жастардың шетелге көші-қонына әсер етуші фактор ретінде (Алматы қаласы мысалында)

Джусибалиева А.К.<sup>а\*</sup>, Исакова Д.М.<sup>а</sup>, Курманалина А.А.<sup>б</sup>, Дүйсенбаева Б.Б.<sup>с</sup>, Исакова Д.Б.<sup>а</sup>

<sup>а</sup> «Инноватор» ғылыми-өндірістік кәсіпорны ЖШС, көш.Каратал 2, 010010, Астана, Қазақстан;

<sup>б</sup> Қ.Жұбанов атындағы Ақтөбе өңірлік университеті, даң. Ә.Молдағұлова 34, 030000, Ақтөбе, Қазақстан; <sup>с</sup> Қазақ-Орыс Халықаралық университеті, көш. Әйтеке би 52, 030006, Ақтөбе, Қазақстан

**Дәйексөз үшін:** Джусибалиева А.К., Исакова Д.М., Курманалина А.А., Дүйсенбаева Б.Б., Исакова Д.Б. Жастардың мегаполистердегі ішкі көші-қоны жастардың шетелге көші-қонына әсер етуші фактор ретінде (Алматы қаласы мысалында). Экономика: стратегия және практика, 18(1), 87-102, <https://doi.org/10.51176/1997-9967-2023-1-87-102>

### ТҮЙІН

Ішкі көші-қон жастардың шетелге қоныс аударуы үшін өтпелі сәт болып табылады. Бұл мақаланың мақсаты – қаланың инфрақұрылымын жастардың үлкен қалаларға ішкі көші-қонына әсер ететін фактор ретінде қарастыру. Бұл елдегі мәселелердің бірі, себебі шетелге «мидың ағылуына» әкеледі. Бұл факторларды қарастыру қажет. Зерттеу барысында 14 пен 29 жас аралығындағы Алматы қаласына келген ішкі көші-қонға тартылған жастар қарастырылады. Бұл зерттеудің әдіснамалық негізі Эверетт Ли әдіснамасына негізделген және жастардың миллиондаған халқы бар қалаларға ішкі көші-қонына әсер ететін факторларды талдайды. Мақалада Қазақстан Республикасының өңірлері арасындағы көші-қон процесін тежейтін немесе ынталандыратын объективті факторлар қарастырылады. Бұл факторларға университеттер мен колледждердің саны, жұмыс берушілер саны және денсаулық сақтау мекемелерінің, ойын-сауық орталықтарының саны мен т.б. жатады. Бұл көрсеткіштер төрт факторға топтастырылды: білім беру, денсаулық сақтау, мәдени-ойын-сауық және жұмыспен қамту. Деректерді талдау және өңдеу үшін жалпылау және жүйелеу әдісі қолданылды. Факторларды бағалау үшін мәліметтер Ұлттық статистика бюросынан және басқа да ресми көздерден 2014-2021 жылдар аралығында алынды. Ішкі көші-қон мен қала инфрақұрылымының көрсеткіштері арасындағы байланысты анықтау үшін SPSS бағдарламасының көмегімен корреляциялық-регрессиялық талдау жүргізілді. Нәтижесінде жастардың ішкі көші-қоны мен білім беру және денсаулық сақтау ұйымдары арасында айтарлықтай байланыс бар екенін көрсетті. Осылайша, білім беру жастардың ішкі және сыртқы көші-қонының негізгі факторларының бірі ретінде қарастырылады. Сондықтан мидың ағып кетуіне жол бермеу үшін жоғары білімді дамыту және жұмыспен қамту деңгейін арттыру маңызды.

**ТҮЙІН СӨЗДЕР:** экономика, жастар көші-қоны, ішкі көші-қон, көші-қон факторлары, қала инфрақұрылымы, стратегия

**МҮДДЕЛЕР ҚАҚТЫҒЫСЫ:** авторлар мүдделер қақтығысының жоқтығын мәлімдейді

**ҚАРЖЫЛАНДЫРУ:** зерттеу Қазақстан Республикасы Ғылым және жоғары білім министрлігінің Ғылым комитетінің қаржыландыратын ИРН АР09261051 «Қазақстан жастарының шетелге көші-қоны мәселелерін зерттеу: жастардың білімділік және еңбек көші-қонын реттеу тәсілдері» жобасын гранттық қаржыландыру шеңберінде әзірленген.

### Мақала тарихы:

Редакцияға түсті 16 Қаңтар 2023

Жариялау туралы шешім қабылданды 15 Ақпан 2023

Жарияланды 30 наурыз 2023

\* **Хат-хабаршы авторы:** Джусибалиева А.К. – э.ғ.к., қауымдастырылған профессор, «Инноватор» ғылыми-өндірістік кәсіпорны» ЖШС, Каратал көшесі 2, 010010, Астана, Қазақстан, 87471188545, e-mail: [d\\_aruzhan2011@mail.ru](mailto:d_aruzhan2011@mail.ru)

## Внутренняя миграция молодежи мегаполисов как фактор влияния на миграцию молодежи за рубеж (на примере г. Алматы)

Джусибалиева А.К.<sup>а\*</sup>, Исакова Д.М.<sup>а</sup>, Курманалина А.А.<sup>б</sup>, Дуйсенбаева Б.Б.<sup>с</sup>, Исакова Д.Б.<sup>а</sup>

<sup>а</sup> ТОО «Научно-производственное предприятие «Инноватор»», ул. Каратал 2, офис 19, 010010, Астана, Казахстан; <sup>б</sup> Актюбинский региональный университет им. К.Жубанова, пр. А.Молдагуловой 34, 030000, Актюбе, Казахстан; <sup>с</sup> Казахско-Русский Международный университет, ул. Айтеке би 52, 030006, Актюбе, Казахстан

**Для цитирования:** Джусибалиева А.К., Исакова Д.М., Курманалина А.А., Дуйсенбаева Б.Б., Исакова Д.Б. (2023). Внутренняя миграция молодежи мегаполисов как фактор влияния на миграцию молодежи за рубеж (на примере г. Алматы). Экономика: стратегия и практика, 18(1), 87-102, <https://doi.org/10.51176/1997-9967-2023-1-87-102>

### АННОТАЦИЯ

Внутренняя миграция - это переходный момент для молодежи, чтобы мигрировать за границу. Цель данной статьи рассмотреть инфраструктуру города, как фактор, влияющий на внутреннюю миграцию молодежи в большие города. А это уже одно из проблем страны, потому что происходит «утечка мозгов» за границу. Есть необходимость рассмотреть данные факторы. В исследовании рассматриваются молодые люди, вовлеченные во внутреннюю миграцию, прибывшие в город Алматы, в возрасте от 14 до 29 лет. Методологическая основа данного исследования основана на методологии Эверетта С. Ли и анализирует факторы, влияющие на внутреннюю миграцию молодежи в города с миллионным населением. В статье рассматриваются объективные факторы, которые могут сдерживать или стимулировать процесс миграции между регионами Республики Казахстан. Эти факторы включают количество университетов и колледжей, количество работодателей, а также количество медицинских и культурно-развлекательных учреждений и др. Данные показатели были сгруппированы в четыре фактора: образование, здравоохранения, культурно-развлекательный и трудоустройство. Для анализа и обработки данных используется метод обобщения и систематизации. Данные для оценки факторов были получены из Национального бюро статистики и других официальных источников за период с 2014 по 2021 год. Был проведен корреляционно-регрессионный анализ, с помощью программы SPSS для определения взаимосвязи между внутренней миграцией и показателями инфраструктуры города. Полученные результаты показали, что существует значительная взаимосвязь между внутренней миграцией молодежи и организациями образования и здравоохранения. Таким образом, образование рассматривается как один из основных факторов внутренней и внешней миграции молодежи. Поэтому развитие высшего образования и повышение уровня занятости важны для предотвращения утечки мозгов.

**КЛЮЧЕВЫЕ СЛОВА:** экономика, молодежная миграция, внутренняя миграция, миграционные факторы, инфраструктура города, стратегия

**КОНФЛИКТ ИНТЕРЕСОВ:** авторы заявляют об отсутствии конфликта интересов

**ФИНАНСИРОВАНИЕ:** исследование проведено в рамках грантового финансирования Комитета науки Министерства науки и высшего образования Республики Казахстан проекта ИРН АР09261051 «Исследование вопросов миграции молодежи Казахстана за рубеж: подходы к регулированию образовательной и трудовой миграции молодежи».

### История статьи:

Получено 16 января 2023

Принято 15 февраля 2023

Опубликовано 30 марта 2023

\* **Корреспондирующий автор:** Джусибалиева А.К. – к.э.н., ассоциированный профессор, ТОО «Научно-производственное предприятие «Инноватор», ул. Каратал 2, 010010, Астана, Казахстан, 87471188545, e-mail: [d\\_aruzhan2011@mail.ru](mailto:d_aruzhan2011@mail.ru)

### Introduction

Throughout the history of humankind, migration stood out as the pusher of economic development. The history of migration among CIS countries, former Soviet Union member states, could be divided into before and after the Soviet Union collapse in 1990. Leading factors for migration from cities to rural areas and vice versa were highly related to the consequences of the Soviet Union policy of wealth equal distribution. After the collapse of the Soviet Union, there was a rise in international migration, where people were pushed by various social and economic drivers looking for better conditions to live quality life (Basbai et al., 2017).

Modern migration processes involve complex social processes. They are closely connected to production powers and their distribution in the regions, as well as to the climatic environment, natural resources and the level of crime. Internal migration in Kazakhstan is characterized by intensive migration of the economically active population from villages and environmentally disadvantaged regions to regions with a more favorable economic situation. Internal migration in Kazakhstan has beneficial and negative impacts. The positive side is that any citizen of the country can freely move around the country to satisfy educational, labor and personal needs. Moreover, the negative side is a high rate of internal migration that can lead to the complete "extinction" of settlements in the regions. In addition, internal migration has the following consequences: uneven distribution of productive forces in the country, which leads to uneven socio-economic and demographic development of individual regions and the country as a whole and increasing international migration of economically active populations.

The uneven development of the regions of Kazakhstan in terms of socioeconomic and demographic development affects the rate of internal migration among young people. Consequently, it results in high dynamics in international migration. In the value system of young people, in the first place, self-realization, self-improvement, obtaining an education in demand, and subsequently a highly qualified position, also comfort accessibility of social infrastructure facilities, the acquisition of a particular social status in society (Jussibaliyeva et al., 2022).

According to the International Organization for Migration, every third person leaving the country is an ethnic Kazakh. A quarter of emi-

grants are very young people (from 15 to 28 years old). Most of those leaving the country (77%) have high education. The last point is of particular concern because people who could make a significant contribution to the development of Kazakhstan are emigrating. They could work as scientists, teachers, doctors, or engineers, be influential officials or open a business and create jobs (IOM, 2022). According to the results of 2020 alone, more than 40 thousand Kazakhstani received Russian citizenship. The percentage of young people leaving is also growing. In five years, the negative balance of youth migration has almost quadrupled. Most go for education, which they consider better. In addition, there is no need to pass national testing (IOM, 2022).

At the same time, youth migration has both positive and negative aspects. Positive consequences include raising the level of skills and knowledge of young people and exploring new opportunities for self-realization. However, when educational and labor migration flows into permanent migration, this is a challenge for the country. The state is losing valuable human capital, undoubtedly affecting the country's economic development.

Migration processes differ in the time of stay, gender, age and ethnic composition. The most typical for young people is migration according to the target attribute, i.e. labor and education.

In addition, internal educational migration is because the university system of Kazakhstan needs to be evenly distributed. Higher educational institutions are concentrated in the city of Almaty (42) and Astana (10) (Bureau of National Statistics, 2022). It is here that the best universities in the country are concentrated. From the side of the state, they are more sponsored since the capital's educational institutions have the best personnel, vital research and development, and the exchange of international students. Hence the university has an improved material base.

In addition, the average monthly salary and the average per capita money income of the population are essential factors for the temporary labor migration of young people who do not consider education a necessary step in the social lift. Another critical group of attracting factors affecting migration intensity is the level of development and accessibility of social infrastructure facilities in the regions.

Being at certain life cycle stages is an important characteristic influencing the propensity to migrate. Thus, those who enter the labor

market, marry or find a suitable place for education are inclined to leave their parental home, while people who get divorced and leave their place of work or study can reverse migrate (Zhao, 2003; Samari, 2021).

Education and employment are the main drivers for moving to another region for young people. Every year, more than 1 million citizens participate in intraregional migration, of which half are young people (Bureau of National Statistics, 2021). Analysis and identification of the factors and causes of migration are necessary for developing a sound migration policy, which involves conducting comprehensive, in-depth studies using statistical and sociological methods.

Current research aims to study how city infrastructure development impacts youth's internal migration. The novelty of this study lies in the methodology that uses such factors as education, healthcare, employment, and leisure, which consist of sub-indicators and have yet to be considered in previous studies. This will fill the gap in the analysis of the impact of infrastructure indicators of megacities on the internal migration of young people.

### Literature review

Young people are a valuable human resource for economic growth and a carrier of innovative potential. The region, losing specialists, jeopardizes its development since young people are the leading transformer of society's economic, social, demographic, and cultural environment. In demographic science, there are several types of internal migration factors. Rybakovskyi et al. (2002) believed that adopting a migration decision is influenced by several factors that can be divided into two main groups: objective and subjective.

Objective factors can be divided into three groups:

- Uncontrollable (permanent) factors. These include: the geographical location of the area; natural and climatic conditions; natural disasters and natural disasters; manufactured disasters;
- Temporary (indirect impact) factors: development of the territory; sex composition of the population; the survival rate of migrants; ethnic composition of the population;
- Factors of current regulation: employment and availability of jobs; income level; migration policy; personnel policy; national policy.

Under the subjective factors, the scientist considered the psychological qualities of the individual, which affect the nature of the decisions

made. That is an individual feature of each individual.

According to the "Theory of Migration" by Everett Lee, there is another classification of factors: holding, pulling and pushing. Push factors may include factors of an economic nature (unemployment, crisis), social and political nature (wars, strict censorship, lack of democracy, low social benefits), as well as climatic conditions (Tsui, 2007).

Limiting factors include transportation costs, proximity or vice versa, remoteness of the region, legislative regulation of movement, lack of information about the region of arrival, etc. Attractive ones can also include economic (high wages, the existence of a "career ladder"), political, social and others. In addition, a critical attracting factor is the environment with "like-minded people". In small towns, it is difficult for a talented young person to find acquaintances with whom there will be shared interests. It isn't easy to adapt and integrate into society, so he chooses to move to an environment where he will be comfortable.

Later, the migration of rural youth to the cities took place under the influence of the mechanization of rural labor and rising unemployment. Presently, population flows that determine urbanization trends are caused by the search for practical jobs and income and the need to improve the quality of life, living comfort, and approaching education and healthcare centres. A more diversified urban economy provides more employment opportunities and, accordingly, higher incomes for the population than in rural areas. Cities are attractive because of the greater availability of good education, healthcare, social services, and cultural events. Numerous scientific studies prove that increasing access to quality health care reduces mortality rates (Mulholland et al., 2008). For the development of human resources in cities, a wide choice of forms and methods of education is provided at all levels (schools, colleges, universities, and various educational courses. Demographers and economists pay great attention to studying the impact of internal migration on such a factor as the quality of urban space.

There are various theories on migration, and in early studies, the portrait of a migrant is defined as a less skilled or educated individual. This was also related to the fact that migrants would mostly be from developing countries. Interestingly, it was revealed that as people get older, their possibility and opportunities to

migrate reduce accordingly to their age. At the same time, education was identified as a positive influence by creating more benefits. Another important factor identified was income and salary size (Kurekova, 2011).

Migration plays a significant role in the development of regions and the growth of the regional economy, and it acts as an indicator of the level of regions' development. According to Eldyaeva and Kovanova (2013), various factors could be divided into demographic, labor, quality of life, investment, and innovation indicators that affect migration. Where demographic includes population size in urban and rural areas, population by gender and migration rates; investment and innovation include statistics related to higher education (number of students, number of universities etc.); quality of life is reflected in the population income and expenses; labor include unemployment rate (Eldyaeva & Kovanova, 2013).

Moreover, the listed indicators significantly impact the rate of in-migration. Economic factors such as the unemployment rate are expected to have a crucial role in the decision among the population to migrate. According to Clemente et al. (2016t), the economic variable income rate is not always significant as it becomes essential for migrants when there is a high unemployment rate in the region. If there is a shortage of jobs, people decide to migrate if the wages in the other areas are high. If the employment rate is high, people have less interest in migration, even though the salaries could be higher (Clemente et al., 2016). Wajdi et al. (2016), in their study on interregional migration in Indonesia, also supported the fact that education substantially impacts on the decision of the population to migrate. However, they argue that socio-economic factors, such as employment rate, GDP and social network, are among the most significant drivers of migration. Moreover, social network indicators can simultaneously have positive and negative impacts, as they can develop other important issues, for instance, an increase in the unemployment rate (Wajdi et al., 2016). However, early studies indicate that regional industrial development and death rates strongly impact internal migration (Rees et al., 2016).

Castelli (2018) underlined that two major groups of factors affect migration. The first group includes macro and meso factors, which he described as social factors. These factors include economic development, changes in the demographic structure, and environmental issues

associated with religion or ethnic attributes. At the individual level, the second group includes education, sexual identity or personal will (Castelli, 2018). In addition, scientists also define social factors such as the impact of the crime rate in the region. This is a feature of developing countries, especially among youth, as they migrate based on safety factors (Roth & Hartnett, 2018).

Migration and interregional migration within one country, especially among youth, are highly influenced by various factors and differ from country to country. The most common factor is the level of higher education development. Therefore, regions rich in universities are described with high rates of interregional migration, while areas with fewer higher educational institutions are described as with a high rate of out-migration. Moreover, some students who have developed social environments prefer to move in short distances. Other factors are the possibility of finding a job and building a career and the level of environmental pollution (Vakulenko & Mkrtychyan, 2020). The economic development of a region and its characteristic features must be considered. For instance, environmental issues play an essential role in countries where pastoralism is one of the main types of activity among locals. In addition, when migrating from urban to rural areas due to unemployment, the overall possibility of having a higher income in the rural area decreases as well (Xu et al., 2021).

Internal migration is, in most cases, affected by the educational interest among youth. Therefore, regions with a developed education system that provides various choices are more popular. At the same time, developed countries with quality education, better employment opportunities and higher income rates than in home countries trigger internal migration. Therefore, international migration factors function as drivers for internal migration (Manic, 2018). The internal migration experience is related to crucial moments in a teenager's life. Such experience can trigger the desire for international migration in the future (Bernard et al., 2022).

Based on the provided literature, education and employment opportunities were the most critical factors for youth to move to another city. Apart from that, quality of life is another factor that affected the decision to migrate, including access to public goods: healthcare, education and employment opportunities. Accordingly, the factors mentioned above will be considered in analysing the urban infrastructure development impact on internal migration among youth.

### Methodology

The methodological framework of the current work is based on the provided literature review. It is based on the methodology of Everett S. Lee and analyses factors influencing the internal migration of young people to cities with a population of one million. The paper considers objective factors that can constrain or stimulate the process of migration between the regions of the Republic of Kazakhstan. There were identified various factors which have an impact on the decision of people to migrate.

The studies look at four factors, such as:

1. Education, as an indicator of education, such indicators are considered as the number of universities, the number of colleges, the number of teaching staff in universities;

2. Labor market, this indicator is calculated as the number of small, medium and large enterprises;

3. Healthcare, considered as the number of hospitals, the number of doctors, and the number of nursing staff;

4. Cultural and leisure indicator, calculated as the number of theatres and cultural and leisure organizations, cinematographic organizations that screen films and the number of cultural and leisure events.

Table 1 presents a description of the factors used in the analysis.

**Table 1** - Dependent and independent variables

No.	Variable type	Factors	Variable title
1	Independent	Education	Number of higher educational institutions
			Number of colleges
2	Independent	Healthcare	Number of healthcare institutions
3	Independent	Employment	Number of organization
			Number of Small Companies
			Number of Medium Companies
			Number of Large Companies
4	Independent	Leisure	Number of cultural and leisure organizations
			Number of cinematographic organizations carrying out film screenings
			Number of theatres
			Number of cultural and leisure activities
5	Dependent	Youth	Number of young people aged 14 to 29 participating in internal migration

Note: complied by authors

These factors include the number of universities and colleges, the number of employers, and the number of healthcare and leisure facilities. The method of generalization and systematization is used for data analysis and processing. The study will be based on data from the National Bureau of Statistics and other official sources from 2014 to 2021. All the considered indicators relate only to the city of Almaty.

According to the Law of the Republic of Kazakhstan, "On State Youth Policy" in Kazakhstan, the category "youth" includes citizens of the Republic of Kazakhstan from fourteen to twenty-nine years old. Therefore, this study considers young people involved in internal migration, from 14 to 29 years old to the

cities of Almaty. Correlation-regression analysis will be carried out through the SPSS program to determine the relationship between internal migration and infrastructure indicators of the cities described in Table 1. Therefore, the following hypotheses were developed:

Hypothesis 0: Businesses development have insignificant influence on emigration dynamics.

Hypothesis 1: Businesses development have significant influence on emigration dynamics.

Hypothesis 2: Cultural and leisure factor has insignificant influence on emigration dynamics.

Hypothesis 3: Cultural and leisure factor has significant influence on emigration dynamics.

Hypothesis 4: The education and healthcare factors has insignificant influence on emigration dynamics.

Hypothesis 5: Education and healthcare factors have significant influence on emigration dynamics.

### Results and analysis

Internal migration is a voluntary movement of people in the Republic of Kazakhstan from one area to another because of various motives: economic (level of development of the territory, jobs, and wages), social (comfort, security, and infrastructure), environmental (prosperous or disadvantaged territory, pollution, the presence of environmental problems). Consider the indicator “balance of interregional youth migration” from 2017 to 2021.

The migration outflow in 2021 amounted to 2699 young people. A high negative balance of migration in 2019 in the Turkestan region - 10,617 people, East Kazakhstan region - 3,845 people, Zhambyl region - 3,677 people, Almaty region - 4,246 people. Only one region has a positive migration balance of 1,357 people - Mangistau. In general, the central regions of disposal are the southern regions. On the one hand, this is because the most significant number and population density historically characterize them. On the other hand, this trend is partly the result of the ongoing state policy to stimulate migration from labor-surplus to labor-deficient regions.

**Table 2** - Balance of interregional migration of youth of the Republic of Kazakhstan

Region	Balance of migration				
	2017	2018	2019	2020	2021
Kazakhstan	-2 561	-4 664	-5 301	-2 465	-2 699
Akmola	-1 362	-1 808	-2 094	-1 252	-2 115
Aktobe	-283	-523	-796	-431	-714
Almaty region	-2 491	-5 196	-7 968	-5 392	-4 246
Atyrau	376	581	17	39	-550
West Kazakhstan	-865	-968	-1 161	-1 061	-881
Zhambyl	-6 101	-3 964	-4 803	-3 490	-3 677
Karaganda	-2 967	-2 651	-2 703	-2 070	-2 411
Kostanai	-1 624	-1 353	-1 843	-1 703	-1 651
Kyzylorda	-2 148	-1 884	-1 961	-1 743	-2 366
Mangystau	606	750	1 747	1 483	1 357
Pavlodar	-1 750	-1 209	-1 373	-954	-1 302
North Kazakhstan	-1 953	-1 303	-1 647	-1 396	-1 679
Turkestan	-14 752	-28 119	-2 713	-6 619	-10 617
East Kazakhstan	-4 613	-3 801	-4 339	-3 669	-3 845
Astana city	15 853	7 986	12 244	9 076	14 191
Almaty city	14 765	13 180	15 807	14 881	13 959
Shymkent city	6 748	25 618	-1 715	1 836	3 848

Note - compiled by the authors by source Bureau of National Statistics (2022)

Three million-plus cities have a stable positive balance of inter-regional migration, the largest - in Astana - 14,191 people and Almaty - 13,959 people, while Shymkent has a lower figure - 3,848 people, or 3.7 times less than in Astana. This was also due to rural migration. The permanent population of the capital of the Republic of Kazakhstan is increasing annually, including through migration, mainly through internal migrants. Since the study is conducted on the example of the city of Almaty, we will consider its data in more detail.

Almaty is an intensively developing city, which is the centre of business, economic, and cultural life and occupies a special place in the development of Kazakhstan. The city has been rapidly developing and growing in the last two decades. The territory of Almaty expanded significantly in 2014 - the city doubled in size - the area increased from 33.3 thousand hectares to 68.3 thousand hectares. This is an indicator that the city attracts a large number of people.

In recent years, population growth due to migration has amounted to about 60% due to



a natural increase - 40%. From 2012 to 2021, almost 600 thousand people arrived in Almaty for permanent residence, and about 315 thousand people left it. The positive balance of migration amounted to about 285 thousand people. In general, the migration flow has positive characteristics: among the arrivals, most people are of working age (their share in 2021 was

88,5% of the total); by the level of education - the share of people over 18 with higher education increased from 30,4% to 61,4% over ten years. Such rapid migration growth carries significant risks as an increase in the load on the existing infrastructure and at the same time, opens up new opportunities for the growth of the megacity's economy.

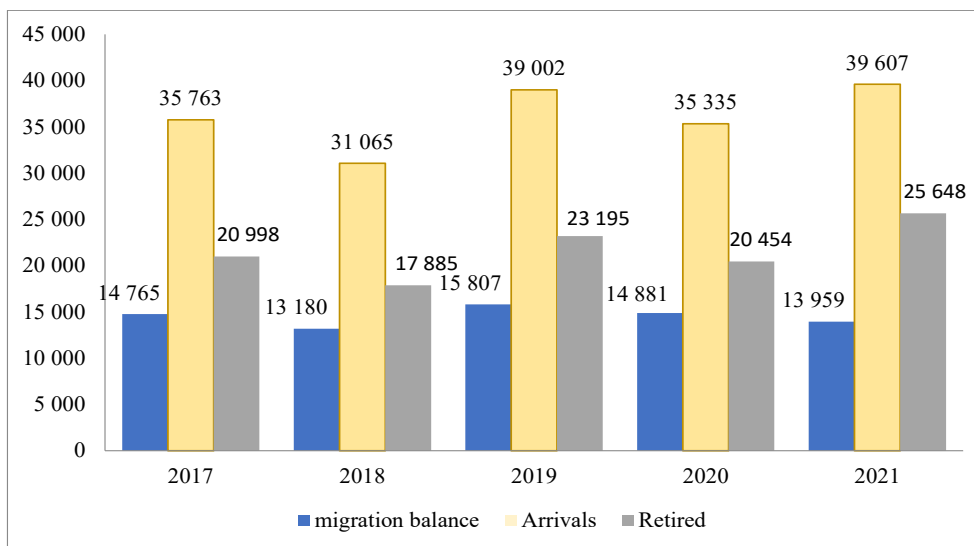


Figure 1 - Data on internal migration of young people in the city of Almaty

Note - compiled by the authors by source Bureau of National Statistics (2022)

The internal migration of young people in Almaty has a positive trend. There are more arrivals to the city than those leaving. The maximum number of young people who arrived was in 2021 - 39,607 people, and the minimum in 2018 – 31,065. The migration balance was maximum in 2019 and amounted to 15,807 people, which is 11,6% more than in 2021.

Almaty attracts people with its socio-economic advantages: more excellent employment opportunities, a relatively high level of education

and healthcare and a developed infrastructure for leisure and sports. These indicators will be discussed next.

Small and medium business is rapidly developing in Almaty. At the end of 2021, there were 82,127 small businesses in the metropolis, which is 89% more than in 2014. The number of medium-sized enterprises decreased by 54 compared to 2014 and amounted to 912. Large enterprises also decreased by 35 and amounted to 508 (see Table 2).

Table 2 - The number of registered legal entities of the Republic of Kazakhstan by dimension in the city of Almaty (labor factor)

Legal entities	2014	2015	2016	2017	2018	2019	2020	2021	units	%
small	43381	47540	58954	61508	61925	66276	74424	82127	38746	89
medium	976	1107	1265	1079	1009	948	938	912	-54	-7
large	543	550	590	550	510	539	526	508	-35	-9

Note - compiled by the authors by source Bureau of National Statistics (2022)

The reduction of these types of businesses is associated with the coronavirus and the January events in the city. In addition, 643.1 thousand people or 65,4% of the total number employed in the city, are employed in small and medium-sized businesses. The share of gross value added

by SMEs in the city's economy was 47,5%. On the one hand, this is a sign of the business activity of citizens. On the other hand, the SME sector is sensitive to changes and crises.

Next, Table 3 presents indicators constituting factors from 2014 to 2021.

**Table 3** - Indicators constituting factors from 2014 to 2021, in Almaty

Indicators	2014	2015	2016	2017	2018	2019	2020	2021
<i>Education factors</i>								
Universities	40	42	40	40	41	41	41	42
Number of colleges	79	87	85	83	78	76	82	81
The number of academic staff	13 803	12 759	12 928	12 575	12 730	12 891	12 181	12 779
<i>Healthcare system factors</i>								
Number of hospital organizations	72	76	79	79	87	92	91	91
Number of doctors	12 128	12 720	16 332	13 267	13 298	13 052	13 450	13 884
Number of nurses	15 945	16 779	20 160	18 208	18 364	18 858	19 477	19 987
<i>Cultural and leisure factors</i>								
Number of cultural and leisure organizations	10	9	1	1	1	0	0	0
Number of cultural and leisure activities	2 091	1 669	30	35	35	0	0	0
Number of cinematographic organizations carrying out film screenings	17	15	17	21	21	21	22	21
Number of cinemas	23	18	25	26	26	27	28	22
Number of theatres	13	15	16	19	18	18	17	18

Note - compiled by the authors by source Bureau of National Statistics (2022)

Almaty is a city of youth (average age - 33.6 years), a city of knowledge, with 42 universities, one-third of the country's universities. In addition, the number of teaching staff in 2021 amounted to 12,779 people. The number of colleges is 81. These figures are higher than in other cities of the country.

According to the Bureau of National Statistics, in 2021 in Kazakhstan, the number of hospital organizations amounted to 773 units, and in Almaty, their number is 91, which is 11,9% of the total share. Of all categories, the number of doctors in the Republic of Kazakhstan is 78,227 people, of which 13,884 work in Almaty.

The next step included regression analysis of the relationship between independent and dependent variables. There was conducted analysis on how these indicators correlate with the

indicator of young people who arrived in Almaty from other regions of Kazakhstan.

The regression analysis results included three models with one dependent variable - the number of migrant youth arriving in Almaty city from 2014 to 2021. Table 4 there are presented the results of the regression analysis on all three models.

There was run simple regression analysis for all models. Therefore, employment-independent variables were grouped into one and leisure-independent variables. For cultural and leisure factors, there were done some corrections. The number of cultural and leisure activities and cultural and leisure organizations variables were excluded as they showed high collinearity. Independent variables for the third model were grouped, as well as the number of educational institutions and healthcare organizations.

**Table 4** – Regression analysis: three models results

Model 1	Hypothesis 0: The businesses development have insignificant influence on emigration dynamics. Hypothesis 1: The businesses development have significant influence on emigration dynamics.			
	Summary	R	R-squared	Independent variable group 1: v1 description:  1. Number of small businesses 2. Number of medium businesses 3. Number of large businesses
		,706 <sup>a</sup>	,498	
	ANOVA	F	F-significance	
	5,948	,051b		
	Coefficients	t-Statistics	P-value	
		2,439	,051	
Model 2	Hypothesis 2: The cultural and leisure factor has insignificant influence on emigration dynamics. Hypothesis 3: The cultural and leisure factor has significant influence on emigration dynamics.			
	Summary	R	R-squared	Independent variable group 2. v2 description: 4. Number of cinematographic organizations carrying out film screenings 5. Number of theatres 6. Number of cinemas
		,347 <sup>a</sup>	,120	
	ANOVA	F	F-significance	
	,821	,400b		
	Coefficients	t-Statistics	P-value	
		,906	,400	
Model 3	Hypothesis 4: The education and healthcare factors has insignificant influence on emigration dynamics. Hypothesis 5: The education and healthcare factors has significant influence on emigration dynamics.			
	Summary	R	R-squared	Independent variable group 3. Education and healthcare factor description: 7. Number of hospital organizations 8. Number of colleges 9. Number of universities
		,804 <sup>a</sup>	,646	
	ANOVA	F	F-significance	
	10,960	,016b		
	Coefficients	t-Statistics	P-value	
		3,311	,016	

Note – Compiled by authors

The first model reveals the results, which describe the relationship between youth migration to Almaty and industrial development. The independent variable included small, medium and large organizations. The model summary R-squared = ,498 shows that 49,8% of the change in the model is explained by the variable “v1”. However, the P-value is = .051. Thus, the P-value is > .050. Therefore, the relationship between the dependent and independent variables is insignificant – the null hypothesis is accepted: the influence of the predictor “v1” is insignificant.

The second model reveals the results, which describe the relationship between youth migration to Almaty and cultural and leisure factors. The independent variable included the number of cinematographic organizations carrying

out film screenings and the number of theatres and cinemas. Based on the model summary R-squared = .120, which shows that 12% of the change in the model is explained by the variable “v2”. Moreover, the P-value is = .400. Thus, the P-value is > .050. Therefore, the relationship between the dependent and independent variables is that model 2 is insignificant as well, and hypothesis 3 is accepted: the influence of the predictor “v2” is insignificant.

The third model results describe the relationship between youth migration to Almaty and education and healthcare factors. The independent variable included the number of hospital organizations, colleges and universities. Based on the model summary, R-squared = .646, which shows that 64,4% of the change in the

model is explained by the third group of predictors. Moreover, the P-value is = .016. Thus, the P-value is < .050. Therefore, the relationship between the dependent and independent variables in model 3 is significant. Hypothesis 5 is accepted: the influence of the predictors, education and healthcare factor, is insignificant.

Socio-cultural development, which reflects leisure time, does not significantly impact the population's decision for internal migration. Economic factors stand out as the main reasons for migration. Moreover, youth pay attention mainly to the availability of public goods such as education or healthcare (Vakulenko & Mkrtychyan, 2020; Antosik & Ivashina, 2021).

The influence of education on the decision of youth for internal migration is based on the fact that the younger generation is not bound to various commitments. For instance, they run their businesses or take care of family members. They usually focus on gaining professional skills (Arandarenko et al., 2019; Kaland, 2021). The youth is worried about employment opportunities after they enter a higher educational institution. However, existing studies underline the significance of economic opportunities that people need.

Moreover, in developing countries, especially countries experiencing civil wars, there are growing dynamics in internal migration. Eventually, internal migration can act as a trigger for international migration (García, 2021). Therefore, factors for the internal migration of youth must be considered when analyzing and identifying the reason for international migration.

Provided analysis showed that internal migration factors are the precondition for international migration among youth. Such aspects as cultural life or social goods are in second place and insignificant when deciding to migrate. Although the high remittance rate has a positive outcome for the country's economic situation, it is essential to restore the country's intellectual potential. Economic development, industrialization and the development of agriculture and access to resources have taken the position of main factors for migration and require a highly skilled and qualified labor force.

### Conclusions

The goal of the current research is to analyse the relationship between four factors and the dynamics of internal migration. The results showed that null hypotheses, hypotheses 3 and 5 are accepted. The null hypothesis stated that

local business development does not significantly impact the youth's decision to migrate abroad. According to hypotheses 5 and 3, social and cultural factors have a significant influence on the youth's decision to migrate. This shows that for youth, quality of life is more important.

Internal migration is the transition point for the youth to migrate abroad. As they gain experience, the decision to migrate becomes a goal in pursuing higher living standards. One of the most popular tools among the young generation is education.

Socio-cultural determinants showed a poor relationship with youth migration. Almaty is the cultural center of Kazakhstan and is famous for its theatres, cinemas and outdoor activities. The variety of choices for spending leisure time is of low interest among youth in Kazakhstan when deciding to migrate to another city. The number of companies also showed an insignificant relationship, as the solution to the employment issues is provided after students enter a university.

The results revealed a significant relationship between internal youth migration and educational and healthcare organizations. Thus education is regarded as one of the main drivers for youth internal migration. It must be considered that internal migration factors are also determinants of international migration, especially among youth. Almaty is a business and socio-cultural centers in Kazakhstan. Therefore, developing higher education and improving the employment rate is essential to prevent brain drain.

Such a large-scale social phenomenon cannot but bear specific aftereffects. As a negative demographic effect of internal migration, one can note a decrease in the population in the country's Northern regions. The economic consequences are both positive and negative. On the one hand, internal migration allows labor to follow the capital. Due to the simplification of movement within the country, a young person can realize personal labor potential wherever an individual wants. On the other hand, all production forces are concentrated in the western and Southern parts of Kazakhstan, leading to economic and market stagnation in the given territories.

Socially, Kazakhstan has been losing and continues to lose its young progressive population. Due to the lack of social lifts, such as educational institutions in some regions, young people migrate to more substantial areas to meet their needs for self-knowledge and self-realization.

There is alarming process that youth emigration is growing. Young Kazakhstanis travel

to almost all countries of the world. However, among the leaders of preference are some European countries, Turkey, the Russian Federation, the USA and China.

Internal migration factors are factors for international migration as well. Firstly, people, especially the economically active population, pursue better economic conditions, reflected in two significant drivers: a high employment rate and high salaries. Secondly, youth migration is a loss of the country's intellectual potential. The young generation looks for different migration methods, where education is among the most popular. However, when choosing the educational institution and the destination country, they look at the possibility of future employment.

The state can only partially prevent migration since this is every citizen's constitutional right. However, the main task should be to find a balanced migration policy that will help evenly distribute the country's labor and educational resources, thereby preventing negative demographic and socio-economic consequences.

The ILO recommends addressing the problems of young migrants at the community level by developing programs in selected cities in the areas of services, housing, employment and vocational retraining. Unfortunately, the strategic programs of the Office of Employment and Social Programs and the Department of Youth Policy in Almaty do not take into account the problems of young migrants. Ignoring such pressing problems as the lack of housing and work for internal migrants in Almaty leads to the accumulation of social issues and the marginalization of this socially active part of the population.

All these migration processes require comprehensive and innovative approaches that meet the modern challenges associated with internal migration to avoid further international brain drain. An effective migration policy will not only regulate migration issues but will also benefit both migrants and society.

In order to prevent or reduce the migration of young people, it is necessary to develop educational structures and healthcare in the regions since these two factors are of crucial importance when deciding to migrate. The results of this study can be used by government agencies involved in youth policy, as well as issues of demographic policy. In addition, the study

results showed what is needed to attract youth in cities. Therefore, the study's results can also be used in regional development matters.

The main limitation of this study was the need for more information. Future studies could provide qualitative research to deeply analyse the link between internal and international migration among youth.

### References

1. Antosik L.V., & Ivashina N.V. (2021) Factors and Routes of Interregional Migration of University Graduates in Russia. *Educational Studies Moscow*, 2, 107–125. <https://doi.org/10.17323/1814-9545-2021-2-107-125>
2. Arandarenko, M., Corrente, S., Jandrić, M., & Stamenković, M. (2019). A Multiple Criteria Approach to Interregional Migrations – The Case of Serbia. Investigating Spatial Inequalities, Emerald Publishing Limited, 197–216. <https://doi.org/10.1108/978-1-78973-941-120191012>
3. Barsbai, T., Rapoport, H., Steinmayr, A., & Trebesch, C. (2017). The effect of labor migration on the diffusion of democracy: evidence from a former Soviet Republic. *American Economic Journal: Applied Economics*, 9(3), 36–69. <https://doi.org/10.1257/app.20150517>
4. Bernard, A., Kalemba, S. & Nguyen, T. (2022) Do Internal Migration Experiences Facilitate Migration Intentions and Behavior? *Demography*, 59 (4), 1249–1274. <https://doi.org/10.1215/00703370-9986021>
5. Bureau of National Statistics (2022). [updated December 15, 2022; cited December 25, 2021]. Available: <http://www.stat.gov.kz>
6. Eldyaeva, N. A. & Kovanova, E. S. (2013) Multivariate analysis of the impact of migration on the socio-economic development of regions. *Economics, statistics and informatics*, 6, 121–126.
7. García, A. A. (2021). When Internal Migration Fails: A Case Study of Central American Youth Who Relocate Internally Before Leaving Their Countries. *Journal on Migration and Human Security*, 9(4), 297–310. <https://doi.org/10.1177/23315024211042735>
8. Castelli, F. (2018). Drivers of migration: why do people move? *Journal of travel medicine*, 25(1), 1–7. <https://doi.org/10.1093/jtm/tay040>
9. Chudinovskikh, O., & Denisenko, M. (2020). *Labour Migration on the Post-Soviet Territory*. In Migration from the Newly Independent States (pp. 55–80). Springer, Cham.
10. Clemente, J., Larramona, G., & Olmos, L. (2016). Interregional migration and thresholds: evidence from Spain. *Spatial Economic Analysis*, 11(3), 276–293. <http://dx.doi.org/10.1080/17421772.2016.1153706>

11. IOM (2022). International Organization for Migration World Migration Report. Geneva. [updated December 15, 2022; cited December 25, 2022]. Available: <https://www.un.org/development/desa/dspd/2022/10/migration-families/>
12. Jussibaliyeva, A.K., Iskakova, D.M., Duisenbayeva, B.B., Tleuberdiyeva, S.S. & Iskakova, D.B. (2022) Economic Aspects and Factors of Educational and Labor Migration of Kazakhstan Youth Abroad. *Economics: the strategy and practice*, 17(2), 126-145. (In Russ.) <https://doi.org/10.51176/1997-9967-2022-2-126-145>
13. Kaland, O.J. (2021) “We Have Many Options, But They are All Bad Options!” Aspirations Among Internal Migrant Youths in Shanghai, China. *The European Journal of Development Research*, 33, 35–53. <https://doi.org/10.1057/s41287-020-00301-z>
14. Kurekova, L. (2011). Theories of migration: Conceptual review and empirical testing in the context of the EU East-West flows. In interdisciplinary conference on migration. *Economic change, social challenge*, 4, 6-9.
15. Manic, M. (2019). The regional effects of international migration on internal migration decisions of tertiary-educated workers. *Papers in Regional Science*, 98(2), 1027-1051. <https://doi.org/10.1111/pirs.12379>
16. Mulholland, P.J., Helton, A.M., Poole, G.C., Hall, R.O., Hamilton, S.K., Peterson, B.J., Tank, J.L., Ashkenas, L.R., Cooper, L.W., Dahm, C.N., Dodds, W.K., Findlay, S.E., Gregory, S.V., Grimm, N.B., Johnson, S.L., McDowell, W.H., Meyer, J.L., Valett, H.M., Webster, J.R., Arango, C.P., Beaulieu, J.J., Bernot, M.J., Burgin, A.J., Crenshaw, C.L., Johnson, L.T., Niederlehner, B.R., O'Brien, J.M., Potter, J.D., Sheibley, R.W., Sobota, D.J., & Thomas, S.M. (2008). Stream denitrification across biomes and its response to anthropogenic nitrate loading. *Nature*, 452, 202-205. <https://doi.org/10.1038/nature06686>
17. Rees, P., Bell, M., Kupiszewski, M., Kupiszewska, D., Ueffing, P., Bernard, A. & Stillwell, J. (2017). The impact of internal migration on population redistribution: An international comparison. *Population, Space and Place*, 23(6), e2036. <http://doi.org/10.1002/psp.2036>
18. Roth, B. J., & Hartnett, C. S. (2018). Creating reasons to stay? Unaccompanied youth migration, community-based programs, and the power of “push” factors in El Salvador. *Children and Youth Services Review*, 92, 48-55. <http://dx.doi.org/10.1016/j.childyouth.2018.01.026>
19. Rybakovsky, L. L., Zakharova, O. D., Ivanova, A. E., & Demchenko, G. A. (2002). The demographic future of Russia. *Population*, 1, 33-48. (In Russ)
20. Tsui, M. (2007). Free market reform in China and the labor migration of Chinese seafarers. *Asian and Pacific migration journal*, 16(1), 81-100. <https://doi.org/10.1177/011719680701600104>
21. Samari, G. (2021). Coming back and moving backwards: return migration and gender norms in Egypt. *Journal of Ethnic and Migration Studies*, 47(5), 1103-1118. <https://doi.org/10.1080/1369183X.2019.1669437>
22. Vakulenko, E., & Mkrtchyan, N. (2020). Factors of interregional migration in Russia disaggregated by age. *Applied Spatial Analysis and Policy*, 13(3), 609-630.
23. Wajdi, N., Adioetomo, S. M., & Mulder, C. H. (2017). Gravity models of interregional migration in Indonesia. *Bulletin of Indonesian Economic Studies*, 53(3), 309-332. <http://dx.doi.org/10.1080/00074918.2017.1298719>
24. Xu, Y., Zhang, Y., & Chen, J. (2021). Migration under economic transition and changing climate in Mongolia. *Journal of Arid Environments*, 185, 104333. <https://doi.org/10.1016/j.jaridenv.2020.104333>
25. Zhao, Y. (2003). The role of migrant networks in labor migration: The case of China. *Contemporary Economic Policy*, 21(4), 500-511. <https://doi.org/10.1093/cep/byg028>

#### Список литературы (транслитерация)

1. Antosik, L.V., & Ivashina, N.V. (2021) Factors and Routes of Interregional Migration of University Graduates in Russia. *Educational Studies Moscow*, 2, 107–125. <https://doi.org/10.17323/1814-9545-2021-2-107-125>
2. Arandarenko, M., Corrente, S., Jandrić, M., & Stamenković, M. (2019). A Multiple Criteria Approach to Interregional Migrations – The Case of Serbia. Investigating Spatial Inequalities, Emerald Publishing Limited, 197–216. <https://doi.org/10.1108/978-1-78973-941-120191012>
3. Barsbai, T., Rapoport, H., Steinmayr, A., & Trebesch, C. (2017). The effect of labor migration on the diffusion of democracy: evidence from a former Soviet Republic. *American Economic Journal: Applied Economics*, 9(3), 36-69. <https://doi.org/10.1257/app.20150517>
4. Bernard, A., Kalemba, S. & Nguyen, T. (2022) Do Internal Migration Experiences Facilitate Migration Intentions and Behavior? *Demography*, 59 (4), 1249–1274. <https://doi.org/10.1215/00703370-9986021>
5. Bureau of National Statistics (2022). [updated December 15, 2022; cited December 25, 2022]. Available at: <http://www.stat.gov.kz>
6. Eldyaeva N. A. & Kovanova E. S. (2013) Multivariate analysis of the impact of migration on the socio-economic development of regions. *Economics, statistics and informatics*, 6, 121-126.
7. García, A. A. (2021). When Internal Migration Fails: A Case Study of Central American Youth Who Relocate Internally Before Leaving Their Countries. *Journal on Migration and Human Security*, 9(4), 297–310. <https://doi.org/10.1177/23315024211042735>

8. Castelli, F. (2018). Drivers of migration: why do people move? *Journal of travel medicine*, 25(1), 1–7. <https://doi.org/10.1093/jtm/tay040>
9. Chudinovskikh, O., & Denisenko, M. (2020). *Labour Migration on the Post-Soviet Territory*. In *Migration from the Newly Independent States* (pp. 55-80). Springer, Cham.
10. Clemente, J., Larramona, G., & Olmos, L. (2016). Interregional migration and thresholds: evidence from Spain. *Spatial Economic Analysis*, 11(3), 276-293. <http://dx.doi.org/10.1080/17421772.2016.1153706>
11. IOM (2022). International Organization for Migration World Migration Report. Geneva. [updated December 15, 2022; cited December 25, 2022]. Available: <https://www.un.org/development/desa/dspd/2022/10/migration-families/>
12. Jussibaliyeva A.K., Iskakova D.M., Duisenbayeva B.B., Tleuberdiyeva S.S. & Iskakova D.B. (2022) Economic Aspects and Factors of Educational and Labor Migration of Kazakhstan Youth Abroad. *Economics: the strategy and practice*, 17(2), 126-145. (In Russ.) <https://doi.org/10.51176/1997-9967-2022-2-126-145>
13. Kaland, O.J. (2021) “We Have Many Options, But They are All Bad Options!” Aspirations Among Internal Migrant Youths in Shanghai, China. *The European Journal of Development Research*, 33, 35–53. <https://doi.org/10.1057/s41287-020-00301-z>
14. Kurekova, L. (2011). Theories of migration: Conceptual review and empirical testing in the context of the EU East-West flows. In interdisciplinary conference on migration. *Economic change, social challenge*, 4, 6-9.
15. Manic, M. (2019). The regional effects of international migration on internal migration decisions of tertiary-educated workers. *Papers in Regional Science*, 98(2), 1027-1051. <https://doi.org/10.1111/pirs.12379>
16. Mulholland, P.J., Helton, A.M., Poole, G.C., Hall, R.O., Hamilton, S.K., Peterson, B.J., Tank, J.L., Ashkenas, L.R., Cooper, L.W., Dahm, C.N., Dodds, W.K., Findlay, S.E., Gregory, S.V., Grimm, N.B., Johnson, S.L., McDowell, W.H., Meyer, J.L., Valett, H.M., Webster, J.R., Arango, C.P., Beaulieu, J.J., Bernot, M.J., Burgin, A.J., Crenshaw, C.L., Johnson, L.T., Niederlehner, B.R., O'Brien, J.M., Potter, J.D., Sheibley, R.W., Sobota, D.J., & Thomas, S.M. (2008). Stream denitrification across biomes and its response to anthropogenic nitrate loading. *Nature*, 452, 202-205. <https://doi.org/10.1038/nature06686>
17. Rees, P., Bell, M., Kupiszewski, M., Kupiszewska, D., Ueffing, P., Bernard, A. & Stillwell, J. (2017). The impact of internal migration on population redistribution: An international comparison. *Population, Space and Place*, 23(6), e2036. <http://doi.org/10.1002/psp.2036>
18. Roth, B. J., & Hartnett, C. S. (2018). Creating reasons to stay? Unaccompanied youth migration, community-based programs, and the power of “push” factors in El Salvador. *Children and Youth Services Review*, 92, 48-55. <http://dx.doi.org/10.1016/j.childyouth.2018.01.026>
19. Rybakovsky, L. L., Zakharova, O. D., Ivanova, A. E., & Demchenko, G. A. (2002). The demographic future of Russia. *Population[Narodonaselenie]*, 1, 33-48. (In Russ)
20. Tsui, M. (2007). Free market reform in China and the labor migration of Chinese seafarers. *Asian and Pacific migration journal*, 16(1), 81-100. <https://doi.org/10.1177/011719680701600104>
21. Samari, G. (2021). Coming back and moving backwards: return migration and gender norms in Egypt. *Journal of Ethnic and Migration Studies*, 47(5), 1103-1118. <https://doi.org/10.1080/1369183X.2019.1669437>
22. Vakulenko, E., & Mkrtchyan, N. (2020). Factors of interregional migration in Russia disaggregated by age. *Applied Spatial Analysis and Policy*, 13(3), 609-630.
23. Wajdi, N., Adioetomo, S. M., & Mulder, C. H. (2017). Gravity models of interregional migration in Indonesia. *Bulletin of Indonesian Economic Studies*, 53(3), 309-332. <http://dx.doi.org/10.1080/00074918.2017.1298719>
24. Xu, Y., Zhang, Y., & Chen, J. (2021). Migration under economic transition and changing climate in Mongolia. *Journal of Arid Environments*, 185, 104333. <https://doi.org/10.1016/j.jaridenv.2020.104333>
25. Zhao, Y. (2003). The role of migrant networks in labor migration: The case of China. *Contemporary Economic Policy*, 21(4), 500-511. <https://doi.org/10.1093/cep/byg028>

**Information about the authors**

**\*Aruzhan K. Jussibaliyeva** – Candidate of Economic Sciences, Associate Professor, LLP Scientific and Production Enterprise «Innovator», Astana, Kazakhstan, e-mail: [d\\_aruzhan2011@mail.ru](mailto:d_aruzhan2011@mail.ru), ORCID ID: <https://orcid.org/0000-0002-4841-4742>

**Damira M. Iskakova** – Candidate of Economic Sciences, leading researcher, LLP Scientific and Production Enterprise «Innovator», Astana, Kazakhstan, e-mail: [damirais61@mail.ru](mailto:damirais61@mail.ru), ORCID ID: <https://orcid.org/0000-0002-1440-9515>

**Aigul A. Kurmanalina** – Candidate of Economic Sciences, researcher, docent, K.Zhubanov Aktobe Regional University (Zhubanov University), Aktobe, Kazakhstan, e-mail: [kurmanalina@mail.ru](mailto:kurmanalina@mail.ru), ORCID ID: <https://orcid.org/0000-0002-0012-2775>

**Botagoz B. Duisenbayeva** – Candidate of Economic Sciences, professor, Kazakh-Russian International University, Aktobe, Kazakhstan, e-mail: [duisenbayeva\\_b@mail.ru](mailto:duisenbayeva_b@mail.ru), ORCID ID: <https://orcid.org/0000-0001-5959-7946>

**Dariya B. Iskakova** – PhD student, researcher, LLP Scientific and Production Enterprise «Innovator», Astana, Kazakhstan, e-mail: [iskakova.dariya@bk.ru](mailto:iskakova.dariya@bk.ru), ORCID ID: <https://orcid.org/0000-0003-1982-0140>

**Авторлар туралы мәліметтер**

**\*Джусибалиева А.К.** – э.ғ.к., қауымдастырылған профессор, «Иноватор» ғылыми-өндірістік кәсіпорны ЖШС, Астана, Қазақстан, e-mail: [d\\_aruzhan2011@mail.ru](mailto:d_aruzhan2011@mail.ru), ORCID ID: <https://orcid.org/0000-0002-4841-4742>

**Искакова Д.М.** – э.ғ.к., жетекші ғылыми қызметкер, «Иноватор» ғылыми-өндірістік кәсіпорны ЖШС, Астана, Қазақстан, e-mail: [damirais61@mail.ru](mailto:damirais61@mail.ru), ORCID ID: <https://orcid.org/0000-0002-1440-9515>

**Курманалина А.А.** – э.ғ.к., ғылыми қызметкер, доцент, Қ.Жұбанов атындағы Ақтөбе өңірлік университеті, Ақтөбе, Қазақстан, e-mail: [kurmanalina@mail.ru](mailto:kurmanalina@mail.ru), ORCID ID: <https://orcid.org/0000-0002-0012-2775>

**Дүйсенбаева Б.Б.** – э.ғ.к., профессор, Қазақ-Орыс халықаралық университеті, Ақтөбе, Қазақстан, e-mail: [duisenbayeva\\_b@mail.ru](mailto:duisenbayeva_b@mail.ru), ORCID ID: <https://orcid.org/0000-0001-5959-7946>

**Искакова Д.Б.** – PhD докторант, ғылыми қызметкер, «Иноватор» ғылыми-өндірістік кәсіпорны ЖШС, Астана, Қазақстан, e-mail: [iskakova.dariya@bk.ru](mailto:iskakova.dariya@bk.ru), ORCID ID: <https://orcid.org/0000-0003-1982-0140>

**Сведения об авторах**

**\*Джусибалиева А.К.** – к.э.н., ассоциированный профессор, ТОО Научно-производственное предприятие «Иноватор», Астана, Казахстан, e-mail: [d\\_aruzhan2011@mail.ru](mailto:d_aruzhan2011@mail.ru), ORCID ID: <https://orcid.org/0000-0002-4841-4742>

**Искакова Д.М.** – к.э.н., ведущий научный сотрудник, ТОО Научно-производственное предприятие «Иноватор», Астана, Казахстан, e-mail: [damirais61@mail.ru](mailto:damirais61@mail.ru), ORCID ID: <https://orcid.org/0000-0002-1440-9515>

**Курманалина А.А.** – к.э.н., научный сотрудник, доцент, Актыбинский региональный университет им. К.Жубанова, Актобе, Казахстана, e-mail: [kurmanalina@mail.ru](mailto:kurmanalina@mail.ru), ORCID ID: <https://orcid.org/0000-0002-0012-2775>

**Дүйсенбаева Б.Б.** – к.э.н., профессор, Казахско-Русский международный университет, Актобе, Казахстан, e-mail: [duisenbayeva\\_b@mail.ru](mailto:duisenbayeva_b@mail.ru), ORCID ID: <https://orcid.org/0000-0001-5959-7946>

**Искакова Д.Б.** – PhD докторант, научный сотрудник, ТОО Научно-производственное предприятие «Иноватор», Астана, Казахстан, e-mail: [iskakova.dariya@bk.ru](mailto:iskakova.dariya@bk.ru), ORCID ID: <https://orcid.org/0000-0003-1982-0140>