

Investigation of Economic and Social Factors Determining Students' Choice of Rental Housing

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Abstract

This study is devoted to analyzing factors influencing students' choice of rental housing in Almaty city, Kazakhstan. The primary attention is paid to changes in the average cost of rent for the period from 2010 to 2020, the number of students, the level of youth employment, the price index for educational and housing services, the level of youth unemployment, the index of the physical volume of the total area of commissioned residential buildings and the cost of living. The study results show that the lowest rental prices were recorded in 2010-2011, followed by significant increases until 2015, driven by increased demand for rental housing. In 2021, rental costs will sharply increase due to the influx of students and migration to Almaty. The increase can also be partly explained by the economic impact of the pandemic, including inflation and changes in the labor market. The number of students studying in Almaty shows significant fluctuations, with a fall in 2011-2012 and an increase from 2016 to 2021. Youth employment rates have also fluctuated, peaking in 2015 and stabilizing in subsequent years. Analysis of the price index for educational and housing services shows a steady increase while the youth unemployment rate is declining. These data indicate a complex relationship between economic and social factors influencing the student rental market in Almaty. Understanding these relationships is essential for developing effective strategies to support students, including measures to ensure housing affordability and improve labor market conditions.

Keywords: real estate, students, employment, youth, human resources, socio-economic factors, labor resources

Студенттердің жалдамалы тұрғын үй таңдауын анықтайтын экономикалық және әлеуметтік факторларды зерттеу

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Түйін

Бұл зерттеу Қазақстанның Алматы қаласындағы студенттердің жалдамалы тұрғын үйді таңдауына әсер ететін факторларды талдауға арналған. Негізгі назар 2010 жылдан 2020 жылға дейінгі кезеңдегі жалдау ақысының орташа құнының өзгеруіне, студенттер санына, жастарды жұмыспен қамту деңгейіне, білім беру және тұрғын үй қызметтеріне баға индексіне, жастар арасындағы жұмыссыздық деңгейіне, пайдалануға берілген тұрғын үйлердің жалпы алаңының физикалық көлемі және өмір сүру құны. Зерттеу нәтижелері көрсеткендей, ең төменгі жалдау бағасы 2010-2011 жылдары тіркелді, одан кейін 2015 жылға дейін жалға берілетін тұрғын үйге сұраныстың артуына байланысты айтарлықтай өсу байқалды. 2021 жылы студенттер ағыны мен Алматыға көші-қонға байланысты жалға алу құнының күрт өсуі байқалады. Өсуді ішінара пандемияның экономикалық әсерімен, соның ішінде инфляциямен және еңбек нарығындағы өзгерістермен түсіндіруге болады. Алматыда оқитын студенттер саны 2011-2012 жылдары азайып, 2016 жылдан 2021 жылға дейін өсумен айтарлықтай ауытқуларды көрсетеді. Жастарды жұмыспен қамту көрсеткіштері де құбылып, 2015 жылы ең жоғары деңгейге жетті және кейінгі жылдары тұрақтанды. Білім беру және тұрғын үй қызметтеріне бағалар индексі талдау жастар арасындағы жұмыссыздық деңгейінің төмендеген кезде тұрақты өсімін көрсетеді. Бұл деректер Алматы қаласындағы студенттерді жалдау нарығына әсер ететін экономикалық және әлеуметтік факторлардың күрделі байланысын көрсетеді. Бұл қарым-қатынастарды түсіну студенттерді қолдаудың тиімді стратегияларын, соның ішінде тұрғын үйге қолжетімділікті қамтамасыз ету және еңбек нарығының жағдайын жақсарту шараларын әзірлеу үшін маңызды.

Кілттік сөздері: жылжымайтын мүлік, студенттер, жұмыспен қамту, жастар, адам ресурстары, әлеуметтік-экономикалық факторлар, еңбек ресурстары

Исследование экономических и социальных факторов, определяющих выбор студентами арендного жилья

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Аннотация

Это исследование посвящено анализу факторов, влияющих на выбор арендного жилья студентами в городе Алматы, Казахстан. Основное внимание уделено изменениям средней стоимости арендной платы за период с 2010 по 2020 годы, численности студентов, уровня занятости молодежи, индекса цен на образовательные и жилищные услуги, уровня молодежной безработицы, индекса физического объема общей площади введенных в эксплуатацию жилых зданий и величины прожиточного минимума. Результаты исследования показывают, что самые низкие цены на аренду жилья были зафиксированы в 2010-2011 годах, с последующим значительным ростом до 2015 года, обусловленным повышением спроса на арендуемое жилье. В 2021 году наблюдается резкое увеличение стоимости аренды, связанное с притоком студентов и миграцией в Алматы. Это увеличение также может быть частично объяснено экономическими последствиями пандемии, включая инфляцию и изменения на рынке труда. Численность студентов, обучающихся в Алматы, демонстрирует значительные колебания, с падением в 2011-2012 годах и ростом с 2016 года по 2021 год. Уровень занятости молодежи также колебался, достигнув пика в 2015 году и стабилизировавшись в последующие годы. Анализ индекса цен на образовательные и жилищные услуги показывает устойчивый рост, тогда как уровень молодежной безработицы снижается. Эти данные свидетельствуют о сложной взаимосвязи между экономическими и социальными факторами, влияющими на рынок аренды жилья для студентов в Алматы. Понимание этих взаимосвязей важно для разработки эффективных стратегий поддержки студентов, включая меры по обеспечению доступности жилья и улучшению условий на рынке труда.

Ключевые слова: недвижимост, студенты, занятост, молодежь, человеческие ресурсы, социально-экономические факторы, трудовые ресурсы

Introduction

The study's findings, derived from an analysis of economic indicators, youth employment, and educational trends, are of paramount importance. They identify critical trends and cycles affecting the housing rental market and serve as a crucial tool for improving students' living conditions and academic performance. The impact of affordable and high-quality housing on students' psychological well-being and social integration cannot be overstated, as it directly contributes to enhancing the quality of education.

The relevance of this study is due to a significant increase in the number of students in Almaty, which leads to an increase in the demand for rental housing. In recent years, Almaty has attracted students from other regions of Kazakhstan and abroad, which is connected with the development of educational institutions and international exchange programs. Understanding the factors that influence the choice of rental housing allows for a more effective meeting of students' needs and formulating strategies to stabilize and develop the rental market.

Understanding the factors influencing students' choice of rental housing is more than just necessary. This understanding is crucial for comprehending the rental housing market and providing comfortable conditions for students. The study aims to promptly identify the features of the rental housing market in this region, enabling swift action to address any issues.

The government of Kazakhstan is actively taking measures to improve the living conditions of students and support the rental housing market. One of the key directions is the development and modernization of student dormitories. As part of the state program "Development of Education and Science," new places are created in dormitories, and living conditions are improved in existing ones. Also, the government provides financial support to students through various grants and scholarships, which helps them cope with the costs of renting housing. These measures aim to reduce the burden on students and provide affordable and quality housing.

The University of Kazakhstan also significantly contributes to improving students' living conditions. Many universities implement programs to construct new dormitories and modernize existing ones, which helps to satisfy the growing demand for housing. The university is also actively working on creating a safe and comfortable living environment and implementing modern standards and technologies in the management of dormitories. In addition, universities often provide informational support to students, helping them navigate the housing rental market and choose the most suitable option. These efforts contribute to improving students' living conditions and academic performance.

Despite the commendable efforts of the government and universities, students in Almaty continue to face several challenges in the housing rental market. The high cost of housing rent, particularly in the city's central areas, poses a significant financial burden on many students. Economic instability and rising inflation further exacerbate these issues, forcing students to seek housing on the city's outskirts, increasing their transportation costs and time.

Another significant problem is the need for more quality and affordable housing. Despite the construction of new dormitories and the modernization of existing ones, the demand for student housing continues to exceed the supply. This leads to overcrowding of hostels and a decrease in living conditions. In addition, cases of unscrupulous behavior by landlords, including inflated prices, unsatisfactory conditions, and lack of official lease agreements, are often found in the housing rental market. All these problems create additional difficulties for students when searching for suitable housing and require further attention from the authorities and educational institutions.

The main goal of this study is to identify and analyze factors influencing the choice of rental housing by students in Almaty. To accomplish this objective, a comprehensive review of existing literature was performed. Covering various aspects of the rental housing market, economic indicators, youth employment, and educational trends. The analysis of previous studies devoted to similar issues in other regions and countries allowed the creation of a theoretical basis for interpreting the obtained data and identifying key factors influencing students' preferences. A comparative analysis with the results of other studies also helped to reveal the unique features of the rental housing market in Almaty and factors that may be specific to this region.

Literature review

Economic conditions are one of the main factors affecting students' choice of rental housing. A study conducted in Great Britain showed that the cost of rent, proximity to educational institutions, and the availability of a written lease agreement are significant factors influencing the choice of housing for students [1]. These results confirm that the economic availability of housing and the availability of legal guarantees are critical when deciding to choose housing. Another important economic factor is the availability of financial support and access to scholarships and grants. Research has shown that students from low-income families work more often to pay for school fees and housing rent, which can negatively affect their academic performance and the possibility of continuing their education [2]. In addition, the cost of living in the region also affects the choice of housing. Low living expenses can attract students and contribute to their decision to stay in a particular region for study [3].

The house's architecture and the feeling are considered essential aspects, as well as the location, when choosing housing for students. The results of studies show that when designing dormitories, it is necessary to consider students' preferences and the psychological component [4,5]. Social and infrastructural factors also play an essential role in the students' choosing rental housing. A study conducted in Norway revealed that students prefer housing in the central areas of cities and attach great importance to the quality of housing conditions, such as having their own kitchen and bathroom [6].

Social aspects include elements such as social integration and a sense of belonging, contributing to overall satisfaction with life. Studies show that students value the opportunity to interact with neighbors and create a friendly atmosphere and also highly value safety and privacy in their residences [7]. The importance of housing location and infrastructure quality is confirmed by other studies conducted in different countries,

including studies in Ghana, where students were more satisfied with housing chosen on the recommendations of friends and acquaintances [8].

Recent studies emphasize the importance of environmental factors when choosing housing for students. A study in China showed that the presence of green spaces and water bodies near campuses positively affects students' psychological well-being and reduces depression [9]. These data indicate the need to consider environmental factors in the planning and development of student housing. Psychological aspects and satisfaction with housing play a significant role in students' choice of rental housing. Studies show that the possibility of personalization of the living space and the architectural and aesthetic characteristics of housing affect the satisfaction of students and their sense of home comfort [10]. Students appreciate the opportunity to arrange housing according to their taste, contributing to their adaptation and psychological comfort.

Literary data indicate that economic, social, infrastructural, and environmental factors play a crucial role in students' choice of rental housing. The importance of these factors varies depending on students' specific conditions and preferences. Still, their consideration allows for the development of more effective strategies to meet students' needs and improve the quality of their lives.

Methods

For a deeper understanding of the factors affecting students' choice of rental housing in Almaty, a literature study was conducted covering various aspects of the rental housing market, economic indicators, youth employment, and educational trends. The literature review included analyzing previous studies and reports on similar issues in other regions and countries. This made it possible to create a theoretical basis for interpreting the obtained data and identifying key factors influencing students' preferences. A comparative analysis with the results of other studies also helped to reveal the unique features of the rental housing market in Almaty and factors that may be specific to this region.

A complex approach to collecting and analyzing data was used to study factors influencing students' choice of rental housing in Almaty. Data visualization was used as the primary analysis method, making it possible to identify and demonstrate critical trends and relationships between various indicators. The data was collected from official statistical sources, university reports, market studies, and economic indicators covering 2010 to 2021. The leading indicators included in the survey include average rent prices, the number of students, the price index for housing and education, the level of youth unemployment and youth employment, the index of the physical volume of residential buildings put into operation, and the size of the living wage.

The data was analyzed using various statistical methods, including calculating correlation coefficients to determine the relationship between variables. The correlation matrix was built to visualize the correlation relationships between the indicators, which allowed to demonstrate the strength and direction of the relationships clearly. Special attention was paid to indicators that significantly influence students' choice of rental housing, such as the cost of rent, the number of students, and youth employment. In addition, trends were analyzed, and critical periods of change for each indicator were

identified. This allowed us to determine the most significant relationships and draw reasonable conclusions. Data visualization includes the construction of scatter plots, line trends, and confidence intervals, which allowed a deeper understanding of the dynamics and influence of various factors on students' choice of rental housing in Almaty.

Results

Research on students choosing rental housing in Almaty includes many factors that students consider when deciding on their residence. Thus, this work, employing data visualization, reflects the indicators that can influence students' preferences in the choice of rental housing.

Figure 1 presents an analysis of data on changes in the average rent in Almaty from 2010 to 2020.

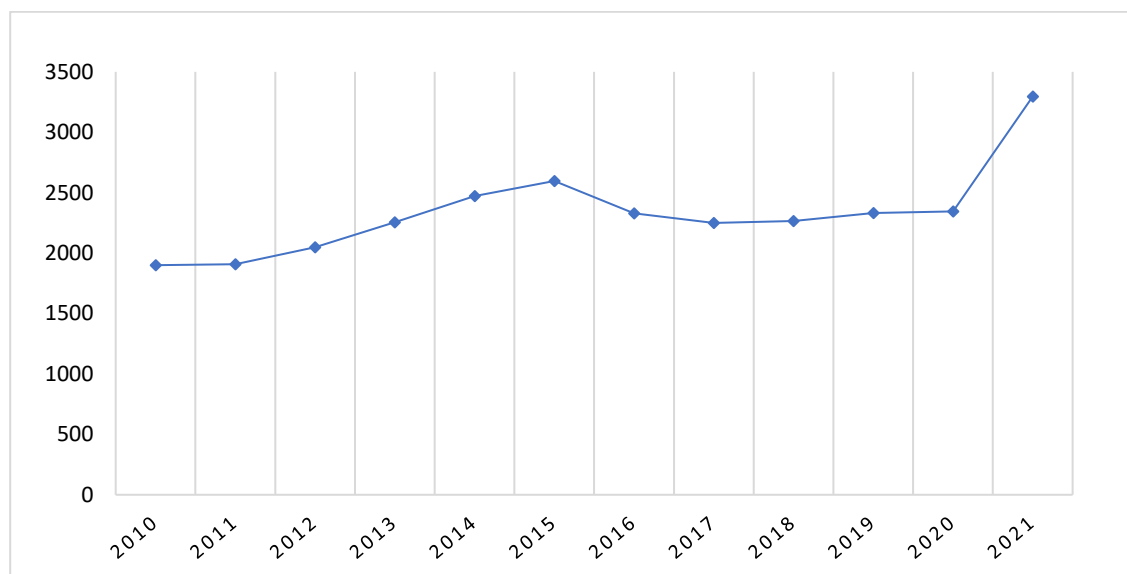


Figure 1. Average rent prices

Note: compiled by the authors based on source [11]

Thus, based on the specified graph, the lowest rent price is observed from 2010 to 2011. Where the price is set at about 2000 tenge per 1 square meter, this may indicate that during this period, the prices on the market were much lower than now. However, from 2012 to 2015, the price began to increase rapidly to 2597 tenge per 1 square meter, which indicates that the demand for rental housing is starting to grow. However, in 2018, the price dropped to 2,265 tenge per square meter, and the reason for this was the decrease in inflation in Kazakhstan. After that, a slight increase in the price will appear in 2020 to 2344 tenge per 1 square meter. However, the most noticeable increase in the price of rental housing is reflected in 2021, where the price is already 3296 tenge per 1 square meter. This sharp change is due to the high demand for temporary accommodation and a

significant influx of visitors, including students from Kazakhstan, who, in recent years, have preferred to study in Almaty city (Figure 2).

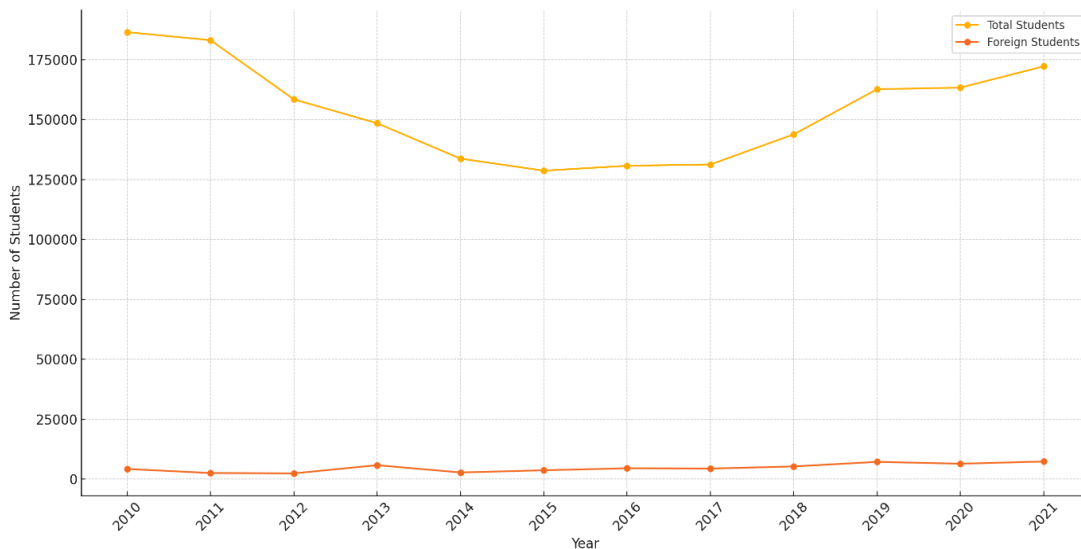


Figure 2. The number of student organizations and international students in Almaty city

Note: compiled by the authors based on source [11]

The figure shows the most significant number of Kazakhstani students studying in Almaty city in 2010, which is 186,499 people. This means that the city of Almaty was the priority when choosing a town for training. However, a significant decline began from 2011 to 2012, when the difference was 24,685 students. In the following years, there was also a decline to 128,707 people in 2015, Which means a decrease in demand for education in Almaty. Moreover, in 2016, the increase in students began again, from 130,761 students in 2016 to 143,860 students in 2018. From 2019 to 2021, there was a significant increase in the demand for education in the city of Almaty among students, which proves the increase in the number of students from 162,680 to 172,224. Such a change indicates that the city of Almaty is a priority for students when choosing a place of study.

The following, indicated in this figure, is the number of international students studying in Almaty. There has been a significant decrease in the number of international students, from 4,271 in 2010 to 2,421 in 2012. The reason for this may be the state's insignificant financing of education. However, in 2013, there was a sharp jump, and the number of students increased to 5,850. Based on the table, there is a constant change in the number of international students, which may be due to various factors that concern not only our country. However, as the number of students from Kazakhstan who prefer to choose the city of education in Almaty grows from 2019 to 2021, the growth of international students also increases for the same period. Such an increase indicates the development of the educational program and financing of educational institutions in Almaty.

Figure 3 presents an analysis of data on the employed youth of Almaty from 2010 to 2020.

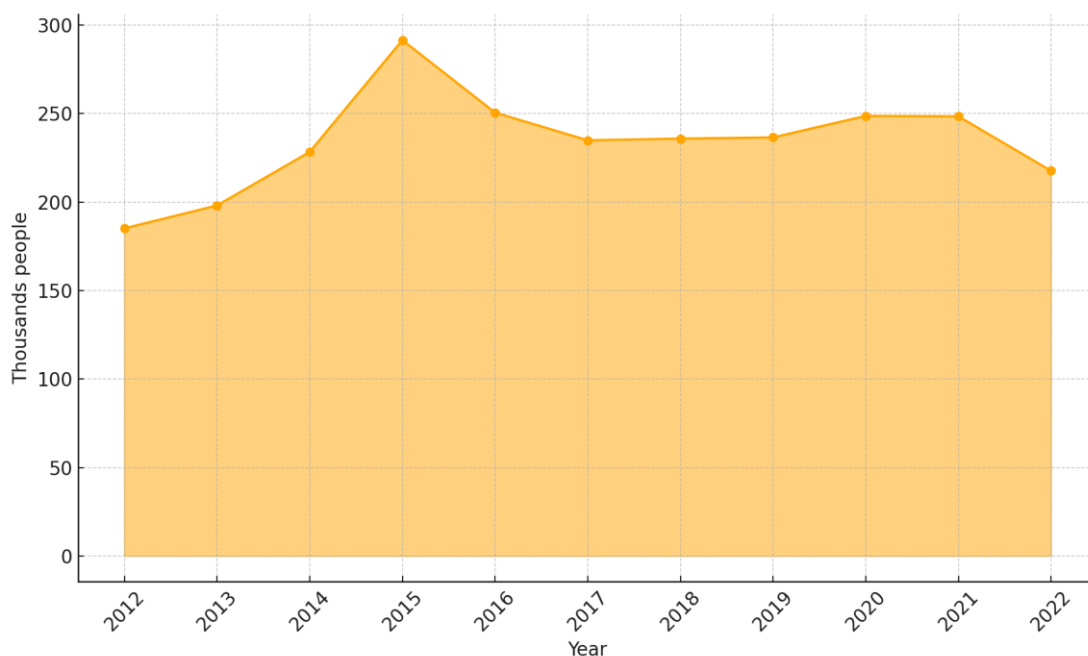


Figure 3. Employed youth of Almaty

Note: compiled by the authors based on source [11]

This graph shows the employment of youth in Almaty. From 2010 to 2014, there was a rapid increase, and the peak employment occurred in 2015, in which the number was 291,567 young people. The reason for this may be the need for additional income to meet one's needs due to rising prices in Kazakhstan, including rising prices for rental housing. This may be due to economic factors such as the need for additional income. Students were looking for flexible or part-time jobs. This job allowed me to combine work and study.

In the following years, there was a slight decrease in employed people to 236,573 in 2019. Because there could be problems with the limited number of workplaces, the need for more opportunities for students, and the inability to combine them with studies. However, the number of employed youth stabilized in the following years and reached 248,000 people. That speaks of a stable position of young people in the labor market.

The COVID-19 pandemic has significantly impacted Almaty's labor and rental market, creating new challenges for students and young people. Job cuts and a shift to remote work and training have reduced demand for rental housing in the city. Many tenants have faced financial difficulties, forcing property owners to lower rental rates or offer discounts to retain tenants. Students who lost their jobs or saw their incomes dwindle sought more affordable housing options or shared apartments with others to cut costs. However, the shift to remote work has also opened up new student opportunities.

Students looked for part-time jobs or internships online, which helped them remain financially independent even during the pandemic.

The following Figure 4 shows the prices for rental housing.

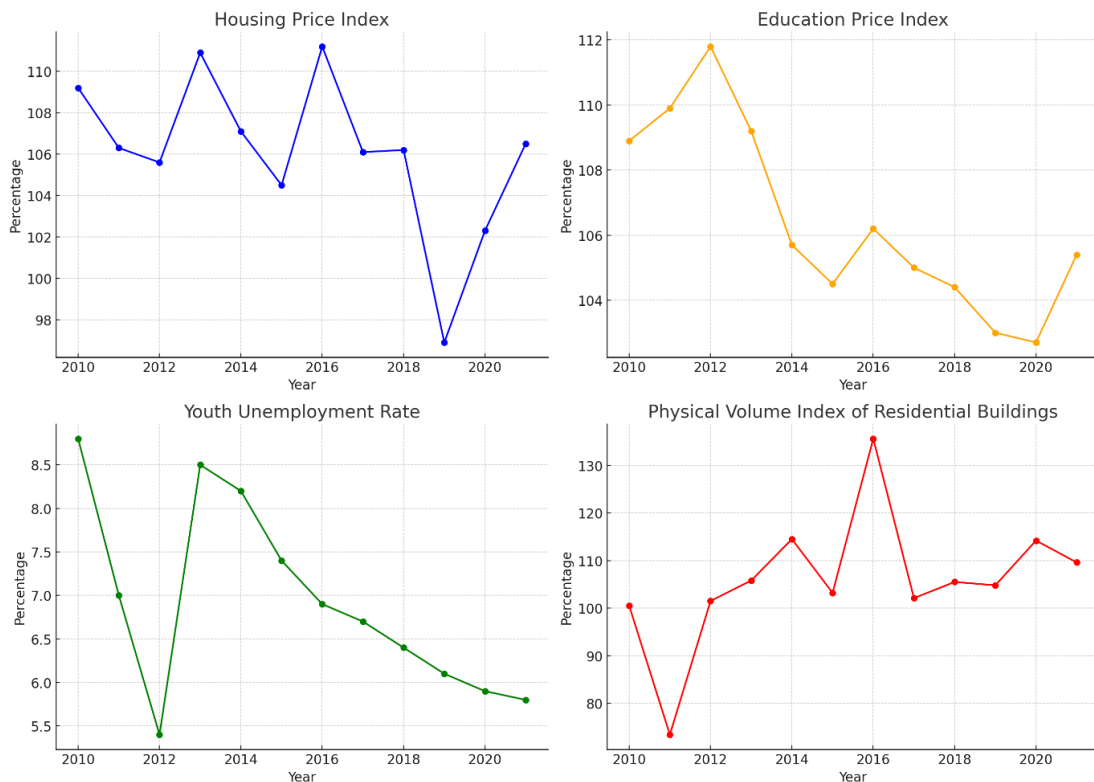


Figure 4. The level of youth unemployment, the price index of housing services, education, and the physical volume of the total area of residential buildings put into operation

Note: compiled by the authors based on source [11]

Examining the figure, it becomes evident that rental housing prices have weathered significant fluctuations from 2010 to 2021. Notably, the highest price growth was observed in 2016 (111.2%) and in 2013 (110.9%), periods that can be attributed to an increase in demand for rental housing driven by a surge in the number of students and migration to the city of Almaty. Conversely, the most significant decrease in rental prices occurred in 2019, amounting to 96.9%. This dip could be attributed to the oversaturation of the housing market or economic factors, such as a decrease in the population's income or a change in the terms of rent. However, the rental market has shown resilience, stabilizing prices in 2020 and 2021. Moderate growth in these periods (102.3% in 2020 and 106.5% in 2021) may be associated with the economy's gradual recovery after the crisis years and the stabilization of demand for rental housing.

The education price index shows steady growth throughout the considered period. The highest growth was observed in 2012 at 111.8%, which may be due to the increase

in the cost of educational services and the increase in requirements for the quality of education. Since 2015, education's growth rate has slowed, reaching 105.4% in 2021. The slowdown in growth may be caused by state regulation of education prices, an increase in the number of state grants and subsidies, or a decrease in demand for paid education.

The youth unemployment rate has demonstrated a promising downward trend, starting from 8.8% in 2010 and reaching 5.8% in 2021. A significant decrease was observed between 2010 and 2012, a period that can be attributed to state support measures aimed at creating jobs for young people, improving the economic situation, and increasing employment opportunities for young professionals. Despite some fluctuations in the unemployment rate, the overall trend paints a positive picture of the youth labor market situation. This could result from changes in the education system aimed at better matching the skills of graduates with the requirements of the labor market and the development of new sectors of the economy, such as IT and technology.

The index of the physical volume of the total area of commissioned residential buildings shows significant variability. The highest growth was observed in 2016 and amounted to 135.6%; the reason may be the increase in investment activity in the construction industry and state support measures for housing construction. A sharp decrease in the index in 2011, which is 73.4%, may result from economic difficulties, such as a decrease in the population's income, an increase in taxes, or an increase in the price of construction materials, which reduced the construction volume. After significant growth in 2016, the index will stabilize at the level of about 100-114% in the following years. This factor may indicate the stabilization of the construction market and the adaptation of developers to new economic conditions. The following figure 5 shows the size of the subsistence minimum.

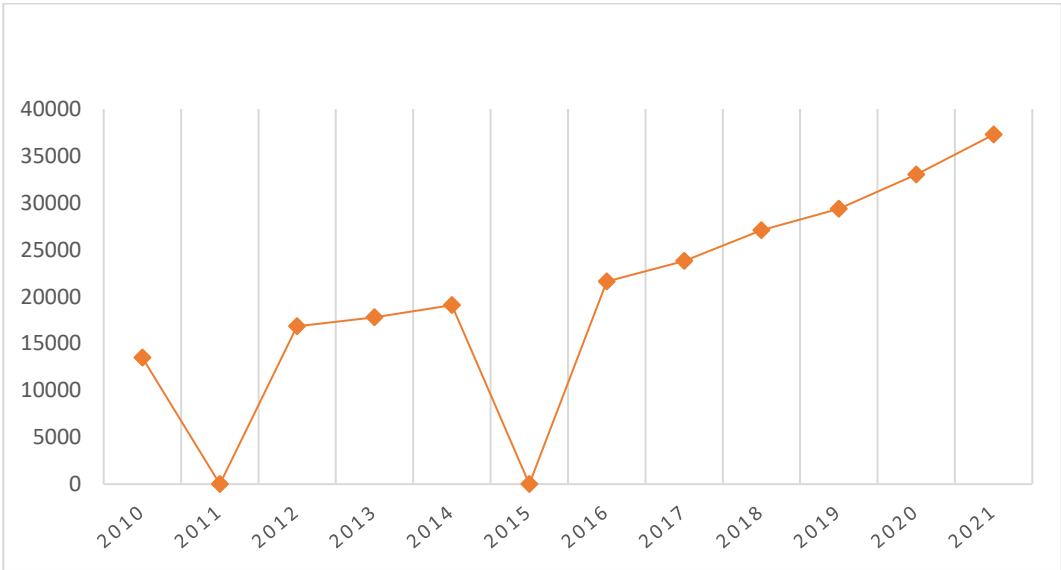


Figure 5. Value of subsistence minimum

Note: compiled by the authors based on source [11]

This graph shows the steady growth of the subsistence minimum in Kazakhstan from 2010 to 2021. Thus, in 2010, the minimum amount of subsistence was 13,487 tenge. 2011, increased to 16,072 tenge, possibly due to inflation and price increases for essential goods and services. Then there was a rapid increase and in 2012, the subsistence minimum reached 16,815 tenge, and in 2013 - 17,789 tenge. The increase in minimum subsistence in these years is probably due to the increasing prices of food, housing, and utilities. In 2014, the minimum subsistence amounted to 19,068 tenge, which also indicates the continuation of the increase in the cost of living. The data for 2015 showed that the subsistence minimum increased to 19,647 tenge, and in 2016 - 21,612 tenge. This growth may be related to economic shocks, such as exchange rate fluctuations and inflation, which affect the cost of imports. In 2017, the subsistence minimum amounted to 23,783 tenge, which reflects the continuing growth of expenses for basic life needs. From 2018 to 2021, there has also been a rapid increase in the subsistence minimum, from 27,072 to 37,266 tenge. A significant increase in these years can be caused by global economic factors, such as the COVID-19 pandemic, which affected the growth of food prices, medical services, and other vital goods.

Conclusion

For several reasons, studying factors affecting students' choice of rental housing in Almaty is essential. First, it helps to identify the critical economic, social, and infrastructure factors that determine students' preferences when choosing housing. Understanding these factors allows governments, universities, and private developers to develop more targeted and practical strategies to meet student needs. In turn, it improves students' quality of life, increasing their academic performance and overall social and economic stability in the region.

Secondly, the results of this study can serve as a foundation for further scientific and applied research in the field of urban planning and development of the housing rental market. By analyzing data for an extended period, the study provides valuable information about dynamics and trends in the housing market, which is crucial for forecasting and making informed decisions. Moreover, the study fosters the improvement of interaction between various interested parties, including government bodies, educational institutions, and the private sector, which is vital for a comprehensive approach to solving problems related to rental housing. Thus, the study not only helps to understand the current situation but also paves the way for sustainable development and improvement of students' living conditions in the future, instilling a sense of hope and optimism.

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