

High School Education in Kazakhstan

A. Introduction

In the decades since independence, Kazakhstan has implemented a multitude of reforms aimed at improving the educational system for the modernisation and future of the country. This is seen as an integral component of its goal to join the top thirty developed countries by year 2050.¹ This case study explores existing challenges to the public high school system in Kazakhstan. It considers what would be an optimal course of action for improving the high school given the country's size, demographics, linguistic tradition and economic conditions.

This case study starts by providing some background information on Kazakhstan. This is followed by an examination of the evolution of Kazakhstan's education system, and the constraints and challenges of education policies. Some potential policy recommendations are explored before the case study concludes.

B. Background

Geography, Economy and Demography

With a land area of 2,699,700 square kilometres,² Kazakhstan is the largest landlocked country and the ninth largest country in the world by land area. The country is bordered by Russia, China, Kyrgyzstan, Uzbekistan, Turkmenistan and the Caspian Sea, and more than half of Kazakhstan, including its West and South, is desert (44%) or semi-desert (12%).³

An oil and mineral rich country, it has the largest economy in Central Asia, with annual GDP growth of 5.1% in 2023 and GDP per capita of US\$12,900.⁴ Kazakhstan's Gini Index which measures inequality within the country was 29.2 as of 2021.⁵ Around 5% of its population fell below the national poverty line in 2022.⁶ Compared with their Central Asian neighbours, Kazakhstanis have the highest GDP per capita and lowest poverty rate.

¹ "President's Address «Third Modernization of Kazakhstan: Global Competitiveness»,” Official information Source of the Prime Minister of the Republic of Kazakhstan, January 31, 2017, <https://primeminister.kz/en/address/31012017>.

² "Land Area (sq. km) – Kazakhstan,” World Bank, accessed January 30, 2025, https://data.worldbank.org/indicator/AG.LND.TOTL.K2?locations=KZ&name_desc=false.

³ "Reviews of National Policies for Education – Secondary Education in Kazakhstan,” OECD, 24, https://www.oecd.org/en/publications/reviews-of-national-policies-for-education-secondary-education-in-kazakhstan_9789264205208-en.html.

⁴ "Kazakhstan: Economic Indicators,” World Bank, accessed January 30, 2025, <https://data.worldbank.org/country/kazakhstan>.

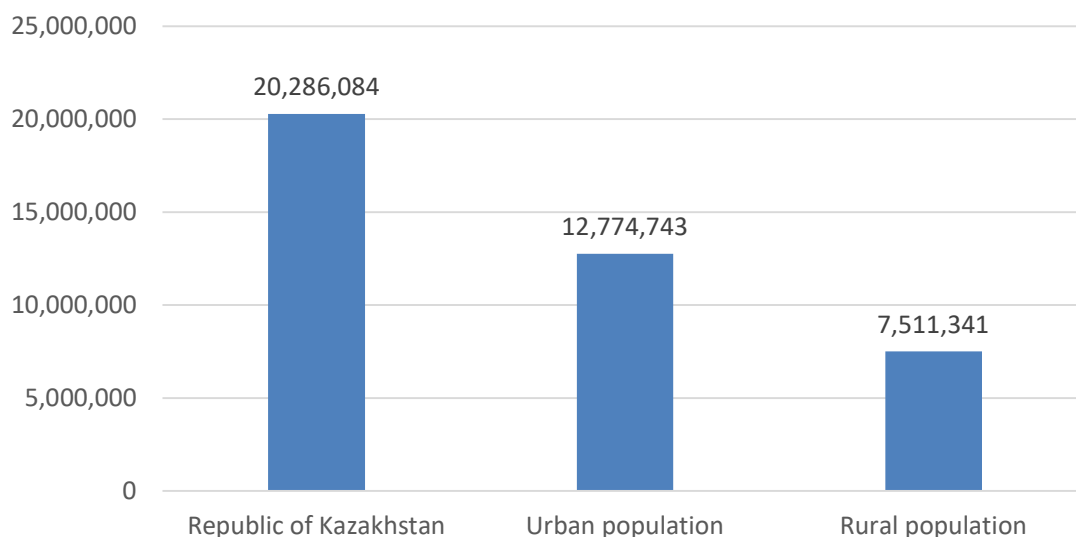
⁵ "Gini Index – Kazakhstan,” World Bank, accessed January 30, 2025, <https://data.worldbank.org/indicator/SI.POV.GINI?view=chart&locations=KZ>.

⁶ "Poverty Headcount Ratio at National Poverty Lines (% of Population) – Kazakhstan,” World Bank, accessed January 30, 2025, <https://data.worldbank.org/indicator/si.pov.nahc?locations=kz>.

This case was written by Cheryl Wu under the guidance of Associate Professor Aziz Burkhanov, Graduate School of Public Policy, Nazarbayev University. The case does not reflect the views of the organisations nor is it intended to suggest correct or incorrect handling of the situation depicted. The case is not intended to serve as a primary source of data and is meant solely for class discussion.

Kazakhstan's population currently stands at 20.3 million⁷ with more than half of its population residing in cities (see Figure 1) and the largest number of people residing in Almaty City (see Figure 2). About 30% of its population is aged 14 years and below⁸ compared to the OECD average of 17%⁹, while about 40% of its workforce is aged under 35.¹⁰ Its population density as of 2022 was 7 people per square kilometre of land and life expectancy at birth was 75 years.¹¹ Kazakhstan also ranked 67 out of 193 countries with a Human Development Index value of 0.802¹² in 2022, thus entering the category of countries with Very High Human Development. Therefore, Kazakhstan has a relatively younger population and workforce than developed countries, while also having better human development than many developing countries.

Figure 1: The population of the Republic of Kazakhstan



Source: Bureau of National Statistics Agency for Strategic Planning and Reforms of the Republic of Kazakhstan, "The Population of the Republic of Kazakhstan," accessed February 3, 2025, <https://stat.gov.kz/api/iblock/element/283305/file/en/>.

⁷ Bureau of National Statistics Agency for Strategic Planning and Reforms of the Republic of Kazakhstan, "The Population of the Republic of Kazakhstan," accessed February 3, 2025, <https://stat.gov.kz/api/iblock/element/283305/file/en/>.

⁸ "Population Ages 0-14 (% of Total Population) – Kazakhstan," World Bank, accessed February 3, 2025, <https://data.worldbank.org/indicator/SP.POP.0014.TO.ZS?locations=KZ>.

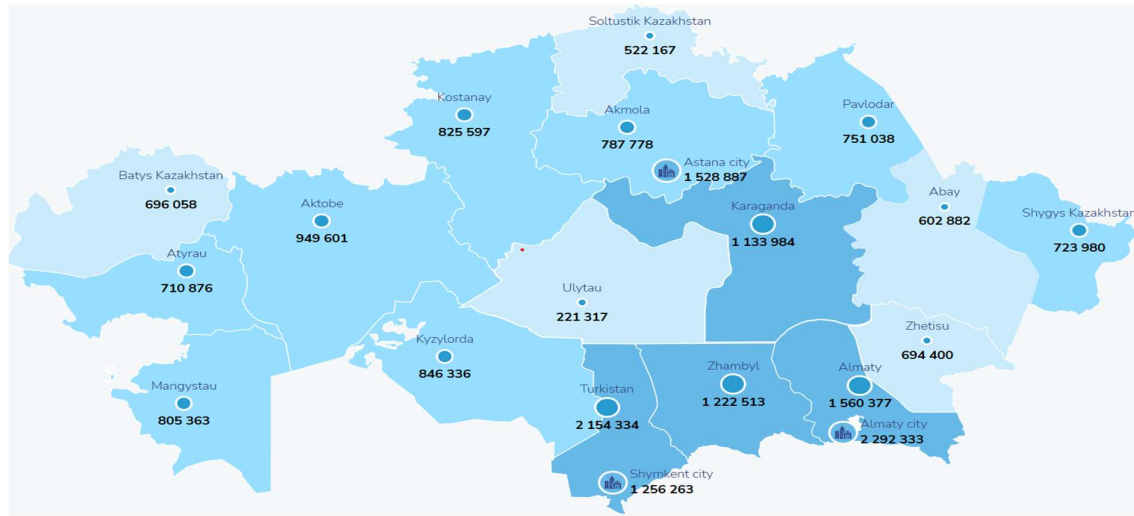
⁹ "Population Ages 0-14 (% of Total Population) – OECD members," World Bank, accessed February 3, 2025, https://data.worldbank.org/indicator/SP.POP.0014.TO.ZS?sm_au=iVVjNnRVZq3JWqZM&locations=OE.

¹⁰ Anna Alshanskaya, "Kazakhstan's Youth: Navigating Future Employment Challenges," *The Astana Times*, August 5, 2024, <https://astanatimes.com/2024/08/kazakhstans-youth-navigating-future-employment-challenges/>.

¹¹ Bureau of National Statistics Agency for Strategic Planning and Reforms of the Republic of Kazakhstan, "Life Expectancy at Birth of the Population of the Republic of Kazakhstan (2023)," accessed February 3, 2025.

¹² Aida Haidar, "UNDP Report: Kazakhstan Ranks 67th in Human Development," *The Astana Times*, March 14, 2024, <https://astanatimes.com/2024/03/undp-report-kazakhstan-ranks-67th-in-human-development/>.

Figure 2: Population of the Republic of Kazakhstan by place of residence

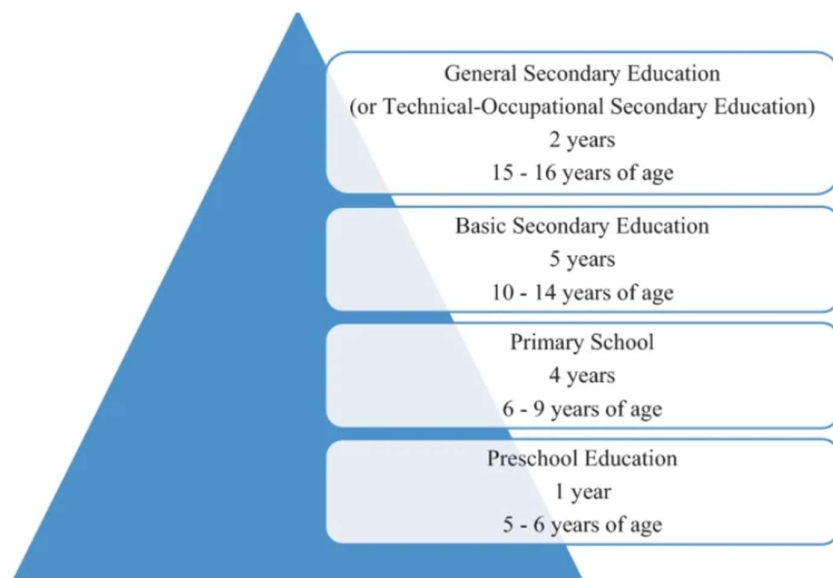


Source: Bureau of National Statistics Agency for Strategic Planning and Reforms of the Republic of Kazakhstan, "Statistics of the Regions of the Republic of Kazakhstan," accessed February 3, 2025, <https://stat.gov.kz/en/region/>.

C. Education in Kazakhstan

Originating from a teacher-dominated Soviet model, the education system comprises a 12-year model that is divided into preschool, primary school, basic secondary and general secondary education (see Figure 3). At the end of the 12-year system, students sit for a Unified National Test which serves as a school leaving examination for secondary school students and an entrance examination to universities.

Figure 3: Kazakhstan's pre-university education system



Source: Independent Agency for Quality Assurance in Education, "Stages of Kazakhstan's Preuniversity Education System," <https://bala.stat.gov.kz/en/dinamika-osnovnyh-pokazatelej-ohvataobrazovaniem/13>.

More specifically, Kazakhstan's school system has been criticised for having overworked and underpaid teachers,¹³ a shortage or poor state of school facilities,¹⁴ and huge inequality between urban and rural schools.¹⁵ In the last two decades, the country implemented numerous reforms to improve the school system, including better salaries for teachers, building new school facilities and opening of the Nazarbayev Intellectual School (NIS) network. Schools in the NIS offer international curriculum standards, better facilities and well-trained teachers.

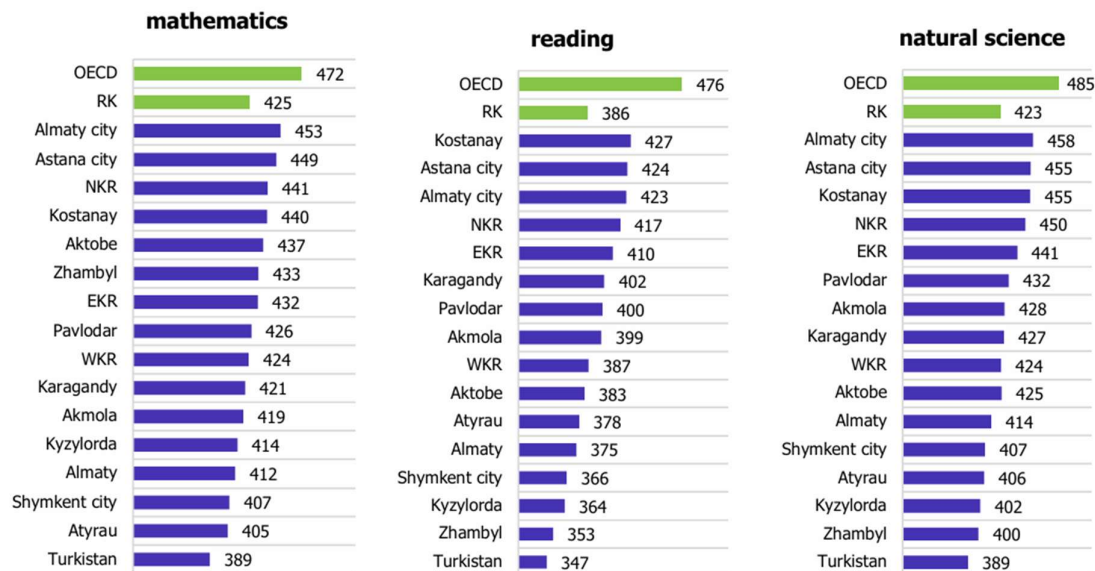
Despite these efforts, the PISA 2022 ranking showed that Kazakhstan scored considerably lower than many mid-income countries: 425 points in math compared to 472 points in OECD countries; 386 points in reading compared to 476 points in OECD countries; and 423 points in science compared to 485 points in OECD countries (see Figure 4).

¹³ Aigerim Kopeyeva, "Kazakhstan's Teachers: Underpaid, Overburdened, and Undervalued," *The Diplomat*, April 17, 2019, <https://thediplomat.com/2019/04/kazakhstans-teachers-underpaid-overburdened-and-undervalued/>.

¹⁴ "Education Policy Outlook: Kazakhstan," accessed May 15, 2025, <https://www.oecd.org/content/dam/oecd/en/about/projects/edu/education-policy-outlook/Education-Policy-Outlook-Country-Profile-Kazakhstan-2018.pdf>.

¹⁵ Zhaslan Nurbayev, "Inequality Between Students of Rural and Urban Schools in Kazakhstan: Causes and Ways to Address It," Central Asia Program, November 9, 2021, <https://centralasiaprogram.org/publications-all/research-updates/fellows-papers/inequality-between-students-of-rural-and-urban-schools-in-kazakhstan-causes-and-ways-to-address-it/>.

Figure 4: PISA 2022 scores in Kazakhstan



Source: Akhmet Baitursynuly National Centre for Education Research and Evaluation, “2023 National Report on the State and Progress of Kazakhstan’s Education System,” <https://taldau.edu.kz/en/publikaciya/national-report-state-and-progress-kazakhstans-education-system-2023>.

i. The Soviet Years (1917–1991)

During the Soviet period in which Kazakhstan transited from an agricultural economy to an industrialised one, education was provided free of charge for all children in educational institutions owned and controlled by the state. Kazakhstanis had near universal access to a relatively high standard of education at all levels. Teachers were appropriately qualified, physical facilities were well maintained, and the disparity between rural and urban schools was small.¹⁶ As a result, illiteracy was largely eliminated.

The basic education structure comprising preschools, primary and secondary schools was set up. A system of higher education was also established in Kazakhstan. In addition to a well-developed infrastructure, tuition fees, books, uniforms and transportation to schools in neighbouring towns or cities were also provided.¹⁷

There was a general emphasis on mathematics and science up to the secondary level, while the humanities and social sciences were saturated with Marxist-Leninist ideologies. Education was centred on the learning of facts and figures or the “correct” answers from textbooks as opposed to creative and problem-solving skills. In terms of pedagogy, education and training focused on rote memorisation: Students only learnt and were asked about textbook content, and were not encouraged to comment on what they learnt.¹⁸

¹⁶ Organization for Security and Co-operation in Europe, “Current Education Issues in Central Asia 2003,” <https://www.osce.org/files/f/documents/9/d/39626.pdf>.

¹⁷ Zubeer A. Rather and Darakhshan Abdullah, “The Development of Soviet Education in Kazakh SSR (1917-1991),” *The Journal of Central Asian Studies* 26/27, 2019/2020, <https://ccas.uok.edu.in/Files/93269b6c-7f53-4439-ae9a-3bdf55a4c649/Journal/2425916f-0731-428d-95fd-dbc6d87c284.pdf>.

¹⁸ Seffat Duman, “Education Reforms in Kazakhstan: International Integration and Nationalization Efforts,” in *Global Agendas and Education Reforms: A Comparative Study*. Maarif Global Education Series, ed. Birol Akgün and Yusuf Alpaydın (Palgrave Macmillan: Singapore, 2023), https://doi.org/10.1007/978-981-97-3068-1_3.

Moscow was the central authority that decided and administered education policies in Kazakhstan and the other Soviet republics within the Union of Soviet Socialist Republics; majority of textbooks and learning materials were produced there. The Russian language became the medium of instruction in schools and served as a unifying factor for the multi-ethnic population of Kazakhstan.

ii. Transitioning of the education system in the early post-Soviet years (1991–2000)

In the early post-Soviet years, Kazakhstan underwent drastic political, social and economic changes. The country went into a severe recession due to chronic lack of domestic capital, disruption to trade networks, and the difficulty that Soviet enterprises and institutions faced in adapting to market conditions.¹⁹

With the establishment of democracy and a market economy, the education system inherited from the Soviet Union had to undergo significant changes as well. The education system was criticised for its ideologically dogmatic content, and structural overcentralisation and obsolescence. Consequently, it was neither competitive nor relevant for the new era.²⁰ Thus, the Kazakhstan government decided to reform the education system to rectify these deficiencies to make it fit for the new era.

According to Article 30 of the Constitution of the Republic of Kazakhstan passed in 1995, all citizens are entitled to compulsory secondary education free of charge in state-owned educational establishments.²¹ However, financial crises led to public expenditure on education as a proportion of GDP declining rapidly from about 7% in 1990 to 3% in 1994²² at a time when changes and different strategies in the education system were desperately needed. The educational structure inherited from the Soviet Union began to deteriorate as a result. Inadequate investment in general secondary education resulted in rundown facilities and outdated equipment, insufficient school buildings and furniture, shortage of teaching materials and student textbooks, and lower school participation rates.²³

Due to financial shortfalls, the lack of success in educational policies led to many changes in the ministerial portfolio, staff attrition and reorganisations in the early post-Soviet years. This instability made it even more difficult to implement and monitor educational policies due to constant change in foci and priorities (see Table 1).

¹⁹ O.W. Adeleke, "Social and Institutional Reforms in the First Decade of Kazakhstan Statehood", *Journal of Psychology and Sociology* 74, no 3, (2020): 35 – 47,

https://www.researchgate.net/publication/348210303_Social_and_monetary_reforms_in_the_first_decade_of_Kazakhstan_statehood.

²⁰ Kuanysh Tastanbekova, "Rethinking the "Post-Soviet" Legacy in Education of Central Asia: focus on Kazakhstan," (presentation, International Council on Central and Eastern European Studies IX World Congress, Makuhari, Japan, August 3-8, 2015), https://www.researchgate.net/publication/301834008_Rethinking_the_Post-Soviet_Legacy_in_Education_of_Central_Asia_focus_on_Kazakhstan.

²¹ "Republic of Kazakhstan: Country Report Education for All – 2000," UNESCO, accessed February 3, 2025, <https://unesdoc.unesco.org/ark:/48223/pf0000219438>.

²² Natallia Yakavets, "Educational Reform in Kazakhstan: The First Decade of Independence," in *Education Reform and Internationalisation*, ed. David Bridges (Cambridge University Press, 2014), https://assets.cambridge.org/97811074/52886/excerpt/9781107452886_excerpt.pdf.

²³ Yakavets, "Educational Reform in Kazakhstan."

Table 1: Chronology of educational reforms (1991–2000)

Years	Legislation and legal framework	Focus
1991–1993	Law on Education (1992) Law on Higher Education (1993)	Formulation of legislation for the education system of an independent Kazakhstan
1994–1996	Constitution of the Republic of Kazakhstan (1995) Concept of Secondary Schools of the Republic of Kazakhstan (1996) A programme of preparation of textbooks and teaching materials for comprehensive schools (1996)	Conceptual revision of the content of education. Commencement of implementation of long-term national programmes in two strategic areas: new textbooks and the introduction of computers into schools.
1997–2000	Kazakhstan 2030: Prosperity, Security and Improvement of the Well-being of all Kazakh Citizens (1997) The State Programme of informatisation of the secondary education The Law on Languages (1997) Resolution of the Government ‘On measures of further reform of the secondary education system in the Republic of Kazakhstan’ (1998) Law of the Republic of Kazakhstan ‘On Education’ (1999) National Programme on Education (2000) The Government Resolution on a Guaranteed State Minimum for Educational Organisations’ Network (2000)	Development and approval of the strategic documents. Changing from mainly Russian to Kazakh as the primary language of instruction. Restructuring and rewriting the curriculum of the Humanities (especially, a new History narrative). The reopening and modernisation of small schools that were closed as a result of the rationalisation process in 1995–97.

Source: Natallia Yakavets, “Educational Reform in Kazakhstan: The First Decade of Independence,” in *Education Reform and Internationalisation*, ed. David Bridges (Cambridge University Press, 2014), 9, https://assets.cambridge.org/97811074/52886/excerpt/9781107452886_excerpt.pdf.

iii. Education in the 21st Century (2000–present)

As education moved into the 21st century, the Kazakhstan government made further efforts to address existing shortfalls and bring the education system on par with international standards. Five State Programmes for Education Development in the Republic of Kazakhstan have been introduced since 2000 (see Table 2).

Table 2: Overview of the State Programmes for Education²⁴

Name of Programme	Year	Overview of Reforms Introduced
State Programme for Education Development	September 2000	- Improvement of education quality - Modernisation of school facilities - Introduction of the Unified National Test
State Programme for Education Development 2005–2010	October 2004	- Enhancement of the number of preschool educational facilities - Extension of general compulsory education from 11 to 12 years - Restructuring of higher education in line with requirements of the Bologna Process.
State Programme for Education Development 2011–2020	December 2010	- Completion of the shift to 12 years of compulsory education - Introduction of per capita financing in education.
State Programme for Education and Science Development 2016–2019	March 2016	- Equal access to quality preschool and secondary education - Modernisation of educational infrastructure - Renovation of educational contents - Improvement of management and monitoring of education system
State Programme for Education and Science Development 2020–2025	December 2019	- Improving the global competitiveness of Kazakhstani education and science - Education and training of a person on the basis of universal values; - Increased contribution of science to the country's economy²⁵

Source: Kuanysh Tastanbekova, "Teacher Education Reforms in Kazakhstan: Trends and Issues," *Bulletin of Institute of Education, University of Tsukuba* 42 no. 2, 2018: 88–89, <https://core.ac.uk/download/pdf/158327214.pdf>; and Official Information Source of the Prime Minister of the Republic of Kazakhstan, "State Program of Education Development Until 2025: Updating Curricula, Supporting Science and Electronic UNT," January 19, 2019, <https://primeminister.kz/en/news/gosprogramma-razvitiya-obrazovaniya-do-2025-goda-obnovlenie-uchebnyh-programm-podderzhka-nauki-i-elektronnoe-ent>.

As of 2023, there were 7,833 secondary schools in Kazakhstan, with 33% located in the urban areas and 67% in rural areas. About 88% or 6,942 schools were state owned.²⁶ Among the daytime state schools, 54%, 15%

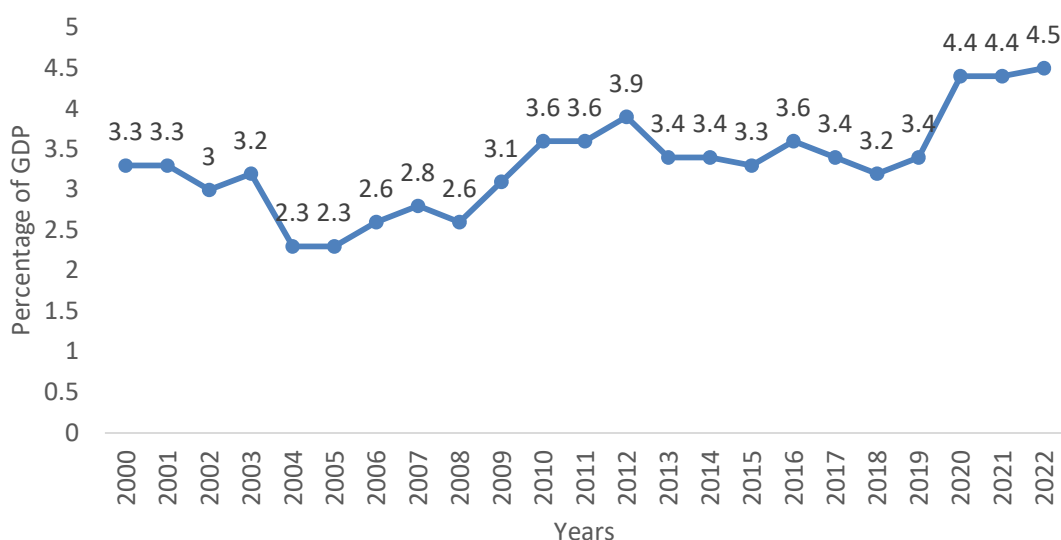
²⁴ Information taken from <https://core.ac.uk/download/pdf/158327214.pdf>, 88 – 89.

²⁵ Information taken from <https://primeminister.kz/en/news/gosprogramma-razvitiya-obrazovaniya-do-2025-goda-obnovlenie-uchebnyh-programm-podderzhka-nauki-i-elektronnoe-ent>.

²⁶ Akhmet Baitursynuly National Centre for Education Research and Evaluation, "2023 National Report on the State and Progress of Kazakhstan's Education System," <https://taldau.edu.kz/en/publikaciya/national-report-state-and-progress-kazakhstans-education-system-2023>.

and 0.1% used Kazakh, Russian and Uyghur as the languages of instruction respectively, while 30% used mixed languages of instruction.²⁷ This reflects the diversity in media of instruction in Kazakhstan's education system. Educational expenditure as a percentage of GDP also gradually increased after hitting a low of 2.3% in 2004–2005 (see Figure 5).

Figure 5: Government expenditure on education as a percentage of GDP between 2000–2022



Source: World Bank, "Government Expenditure on Education, total (% of GDP) – Kazakhstan," accessed February 3, 2025, <https://data.worldbank.org/indicator/SE.XPD.TOTL.GD.ZS?locations=KZ>.

More specifically, having these international standards as goals underscores the importance of students' individuality and diversification in education and training, so that students can choose and advance in their preferred professions. These goals would also improve the quality of education and training through greater student participation and the alignment of measurement and evaluation with Western standards.²⁸

In 2008, the network of Nazarbayev Intellectual Schools (NISs) was established throughout Kazakhstan in collaboration with international partners such as the University of Cambridge Faculty of Education. Its mission is "to build intellectual capacity nationally and globally by combining the best of national and international experience".²⁹

The NISs, dedicated to the best and brightest of students in Kazakhstan, served as experimental platforms for pilots of secondary education systems and policies that may be replicated in secondary schools nationwide. Students were admitted into the NISs through a highly competitive entrance examination that tested students

²⁷ Akhmet Baitursynuly National Centre for Education Research and Evaluation, "2023 National Report."

²⁸ Duman, "Education Reforms in Kazakhstan."

²⁹ "Nazarbayev Intellectual Schools," Nazarbayev Intellectual Schools, accessed February 3, 2025, <https://www.nis.edu.kz/en/>.

on their mathematical, language, quantitative reasoning and spatial thinking³⁰ abilities. Similarly, teachers were hired through a selective examination. The best international education practices were trialled in the NISs for feasibility before being rolled out to local secondary schools on a larger scale. As of end 2023, 16,723 students were enrolled in the NISs and their PISA 2022 results were much higher than the average in Kazakhstan (see Table 3).

Table 3: PISA 2022 scores

Category	Average score of NIS Students	Average score of students in Kazakhstan	Average score of students in OECD Countries
Mathematical Literacy	562	425	472
Reading Literacy	490	386	476
Science Literacy	536	423	485

Source: Nazarbayev Intellectual Schools, "Annual Report AEO "Nazarbayev Intellectual Schools" 2023," <https://www.nis.edu.kz/storage/files/01JSKE4QXHRJ05WSGS7TWHWHS.pdf>.

While heavily funded by the government, the trilingual³¹ NISs are autonomous educational organisations and, compared to the mainstream schools, have more freedom from bureaucratic formalities when setting their curriculum, learning resources and teacher training programmes. In contrast to mainstream public schools, NISs are run on the NIS programme which emphasises a comprehensive exploration of science, technology, engineering and mathematics subjects, as well as the advancement of research skills in students.

According to the OECD, for funding of all mainstream schools to be on par with the NIS system, the educational budget must increase by more than 300%.³² The budget of an NIS is 592 million tenge³³ annually, which is nearly four times the annual funding of a public school at 159 million tenge.³⁴ As the NISs have better funding and greater autonomy, the system has been criticised for creating an inequitable two-tier educational system where the NIS caters to high-performing, gifted students while other students study in mainstream schools. NIS students are more likely from wealthier urban families who can afford the cost of private tutoring and extra-curricular activities to prepare for and pass the NIS entrance examinations, thus exacerbating socio-economic disparities. Only 0.4% of NIS students are from families eligible for social assistance, and only 10% come from rural areas, small towns and district centres.³⁵ The efficacy of the NIS system as an experimental platform for educational policies and its transferability is also yet to be determined. Given the abundance of

³⁰ Laura Karabassova, "English-Medium Education Reform in Kazakhstan: Comparative Study of Educational Changes Across Two Contexts in One Country," *Current Issues in Language Planning* 22:5, 553-573, <https://doi.org/10.1080/14664208.2021.1884436>.

³¹ Languages taught at NIS include English, Kazakh and Russian.

³² "OECD Reviews of School Resources: Kazakhstan 2015," accessed April 8, 2025, https://www.oecd.org/en/publications/oecd-reviews-of-school-resources-kazakhstan-2015_9789264245891-en.html.

³³ As of January 2025, US\$1=525 Kazakhstan tenge

³⁴ Nazym Malikova, "Inequality in Secondary Education in Kazakhstan: the Case of Nazarbayev Intellectual Schools," Central Asian Bureau for Analytical Reporting, April 5, 2023, accessed April 8, 2025, <https://cabar.asia/en/inequality-in-secondary-education-in-kazakhstan-the-case-of-nazarbayev-intellectual-schools>.

³⁵ Nazarbayev Intellectual Schools, "Annual Report AEO "Nazarbayev Intellectual Schools" 2023," accessed February 3, 2025, <https://www.nis.edu.kz/storage/files/01JSKE4QXHRJ05WSGS7TWHWHS.pdf>.

resources and autonomy that an NIS receives in contrast to the average school, mainstream schools will find it challenging to institute policies to achieve similar outcomes.

Furthermore, the Renewed Content of Education was piloted in the NISs in 2015 and its implementation in mainstream schools was completed in 2020. The Renewed Content introduced skills-based curriculum, a new criteria-based assessment system in the classroom, new learning materials, and teachers' development training courses. These allowed for more collaborative learning and pedagogical approaches. Per capital funding for schools in cities and the trilingual instruction of non-language subjects in Kazakh, Russian and English were also introduced. In changing the dynamics of teacher-student relationship into a more discussion and inquiry-based one, the new approach centres on the learning of each individual student.³⁶

Under the Comfortable School National Project announced in 2022, the government plans to construct about 400 new schools for 842,000 students in 2023–2025 to address the shortage of pupil vacancies, and eliminate emergency and three-shift schools.^{37, 38} The new schools will have standardised classrooms for all subjects, computer labs, laboratories and workshops³⁹ alongside canteens, gyms, desk transformers, drinking fountains, communication areas and individual lockers for student use.⁴⁰

D. Constraints and Challenges That Affect Policy Decisions

i. Historical baggage: Managing the Soviet Legacy

Kazakhstan's education system inherited many of its structures from its Soviet predecessor. Previously tailored to the needs of a command economy, education was teacher dominated, rather than student centred. Teachers were the authority and primary source of facts and information in the classroom, with students as passive learners with little to no participation. Structures inherited from its Soviet legacy have significantly deteriorated since independence, and educational standards have declined sharply.

³⁶ Natallia Yakavets, Liz Winter, Kathy Malone, Zhanyl Zhontayeva and Zarina Khamidulina, "Educational Reform and Teachers' Agency in Reconstructing Pedagogical Practices in Kazakhstan," *Journal of Educational Change* 24, 2022, <https://link.springer.com/article/10.1007/s10833-022-09463-5>.

³⁷ Schools with three-shift education are schools which conduct their lessons in three shifts, typically morning afternoon and evening. Three groups of students share the same facilities for their education at different times of the day.

³⁸ "Comfortable School National Project: New Construction Mechanism Developed," Official Information Source of the Prime Minister of the Republic of Kazakhstan, accessed February 5, 2025, <https://primeminister.kz/en/news/comfortable-school-national-project-new-construction-mechanism-developed-27332>.

³⁹ "About 400 Comfortable Schools to be Built in Kazakhstan in Next Few Years," Official Information Source of the Prime Minister of the Republic of Kazakhstan, accessed February 5, 2025, <https://primeminister.kz/en/news/about-400-comfortable-schools-to-be-built-in-kazakhstan-in-next-few-years-2910233>.

⁴⁰ In addition, furniture products for these 369 schools shall be sourced from domestic commodity producers as a means of supporting local industries in Kazakhstan.

1. Teachers were overworked and underpaid. The average monthly nominal salary of teaching staff was 296,405 tenge,⁴¹ lower than the average salary of 309,867 tenge⁴² in Kazakhstan.
2. There was a general shortage of school facilities. Many were in a state of disrepair and some schools had two to even three daily shifts.
3. There were 288,984 students who could not find vacancies in daytime state secondary schools.
4. Ungraded schools were common whereby children of different grades were educated together in the same class due to a lack of students. In 2023, 35% of all schools or 2,705 schools catering to 187,271 students were ungraded.⁴³
5. Education was still based on memorisation and rote learning and there were difficulties in shifting to critical thinking and problem-solving skills that the new market economy requires.

Above all, the effort required to overhaul a nationwide system of 7,833 schools is immense due to the economic cost and Kazakhstan's vast territory and geographical diversity. Under the Comfortable School National Project, the construction of just 400 schools "to create necessary conditions for children to receive quality education in comfortable conditions"⁴⁴ already cost 2.6 trillion tenge. The financial cost and policy trade-offs of overhauling over 7,000 schools to provide quality education for students in Kazakhstan will therefore be substantial.

ii. Political considerations: Medium of instruction

Currently the medium of instruction is mainly Russian, Kazakh or English. Russian is spoken by 84% of the population as an official language for interethnic communication, while Kazakh, the official state language, is spoken by 80%.⁴⁵ Comparatively, more urban residents speak Russian than Kazakh while a higher proportion of rural residents speak Kazakh as compared to urban residents (see Table 4). Furthermore, Kazakhstan's school system also includes public schools in certain rural areas offering education in ethnic minority languages such as Uyghur, Uzbek, Tajik, Dungan etc. In fact, out of 6,903 daytime state schools, 0.1% of state schools offer education in Uyghur language of instruction (see Table 5). Reforming the medium of instruction would entail significant changes.

⁴¹ Akhmet Baitursynuly National Centre for Education Research and Evaluation, "2023 National Report."

⁴² "Key Labor Indicators in the Republic of Kazakhstan (2022)," Bureau of National Statistics Agency for Strategic Planning and Reforms of the Republic of Kazakhstan, accessed February 7, 2025, <https://stat.gov.kz/en/industries/labor-and-income/stat-wags/publications/56840/>.

⁴³ Akhmet Baitursynuly National Centre for Education Research and Evaluation, "2023 National Report."

⁴⁴ Official Information Source of the Prime Minister of the Republic of Kazakhstan, "About 400 Comfortable Schools."

⁴⁵ "National Composition, Religion and Language Proficiency in the Republic of Kazakhstan," Agency for Strategic Planning and Reforms of the Republic of Kazakhstan, accessed February 7, 2025, <https://stat.gov.kz/upload/medialibrary/cee/3rsfg8ps3xo19orb284esg4rx27ihqf7/%D0%9D%D0%B0%D1%86%D0%B8%D0%BE%D0%BD%D0%B0%D0%BB%D1%8C%D0%BD%D1%8B%D0%B9%20%D1%81%D0%BE%D1%81%D1%82%D0%B0%D0%B2.pdf>.

Table 4: Language proficiency of urban and rural populations in Kazakhstan

	Russian	Kazakh	English
Urban population	84%	76%	43%
Rural population	86%	83%	23%

Source: Bureau of National Statistics Agency for Strategic Planning and Reforms of the Republic of Kazakhstan, "National Composition, Religion and Language Proficiency in the Republic of Kazakhstan," accessed February 7, 2025,

<https://stat.gov.kz/upload/medialibrary/cee/3rsfq8ps3xo19orb284esq4rx27ihqf7/%D0%9D%D0%B0%D1%86%D0%B8%D0%BE%D0%BD%D0%B0%D0%BB%D1%8C%D0%BD%D1%8B%D0%B9%20%D1%81%D0%BE%D1%81%D1%82%D0%B0%D0%B2.pdf>.

Table 5: Full-time state schools by language of instruction

	Number of schools	Share, %	Number of students	Share, %
Daytime state schools	6,903	100%	3,518,664	100%
of which				
With Kazakh language of instruction	3,756	54%	1,585,820	45%
With Russian language of instruction	999	15%	325,881	9%
With mixed languages of instruction	2,143	31%	1,603,263	46%
With Uyghur language of instruction	5	0.1%	3,700	0.1%

Source: Akhmet Baitursynuly National Centre for Education Research and Evaluation, "2023 National Report on the State and Progress of Kazakhstan's Education System," accessed April 8, 2025,

<https://taldau.edu.kz/en/publikaciya/national-report-state-and-progress-kazakhstans-education-system-2023>. Percentages have been rounded.

Kazakh nationalist groups, who see the education system as an effective medium to build national consciousness in the post-independence era, have called for the Kazakh language as the official medium of instruction instead. However, the Kazakhstan government aimed to establish a Kazakhstani national identity emphasising multiculturalism, interethnic harmony and a sense of belonging regardless of ethnicity.⁴⁶ Government support of public schools offering education in ethnic minority languages reinforces the inclusiveness of policies, where ethnic minorities are able to receive education in their own languages.⁴⁷ An individual's right to one's mother tongue and culture is outlined in the Constitution, allowing one "to choose freely the language of communication, education, training and creativity."⁴⁸ In light of this, as well as the cultural diversity of Kazakhstan, the use of Kazakh as official medium of instruction may alienate non-Kazakh-

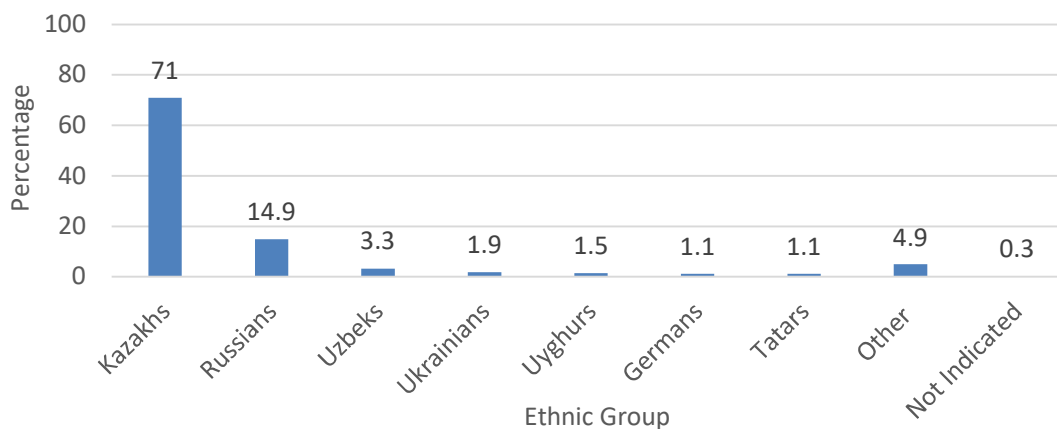
⁴⁶ Alexandra Nam, "Medium of Instruction, National Identity and Attitudes Towards Gender Roles in Kazakhstan," in *The Political Economy of Education in Central Asia*, ed. Naureen Durrani and Hélène Thibault (Palgrave Macmillan, 2023), https://doi.org/10.1007/978-981-99-8517-3_8.

⁴⁷ Graduates of such schools are, however, unable to take the Unified National Test which is only offered in Kazakh or Russian. This would greatly limit the educational pathways of such graduates as they will be unable to qualify for a space in the universities or compete for university scholarships.

⁴⁸ Constitution of the Republic of Kazakhstan, Official Website of the President of the Republic of Kazakhstan, accessed February 7, 2025, <https://www.akorda.kz/en/constitution-of-the-republic-of-kazakhstan-50912>.

speaking minority groups. As shown in Figure 6⁴⁹ below, while Kazakhs form the greatest part of the population, 29% are ethnic minorities that may not speak Kazakh. Burkhanov opined that the language issue remains among the most sensitive domestic policy issues in post-independence Kazakhstan.⁵⁰

Figure 6: Ethnic distribution of Kazakhstan



Source: Bureau of National Statistics Agency for Strategic Planning and Reforms of the Republic of Kazakhstan, "Population of the Republic of Kazakhstan by Gender and Type of Locality (at the Beginning of 2024)," accessed February 7, 2025, <https://stat.gov.kz/en/industries/social-statistics/demography/publications/157662/>.

In addition, Kazakhstan would face many difficulties in internationalising the educational system if the medium of instruction is Kazakh. There is, furthermore, a shortage of teaching materials in Kazakh compared to Russian, which would make it difficult for teachers teaching in Kazakh to achieve favourable teaching outcomes.

iii. Socio-economic factor: The internationalisation of the education system

Internationalising the education system also has socio-economic implications. To internationalise and create a world-class education system, Kazakhstan has shifted towards a neoliberal market-based educational system in line with Western standards. However, such a mode of education will likely result in greater rural-urban discrepancies and worsening economic inequalities in favour of those privileged with socio-economic capital. Rural schools are disadvantaged due to lesser resources including the lack of qualified teachers and inadequate learning facilities such as shortage of school infrastructure and poor internet access. This is particularly so with the growth of the shadow economy where more privileged students in the cities have access to better learning opportunities, and are able to afford private tutoring in preparation for admission into elite schools or to keep up with the Renewed Content of Education that has been implemented.

⁴⁹ "Population of the Republic of Kazakhstan by Gender and Type of Locality (at the beginning of 2024)," Bureau of National Statistics Agency for Strategic Planning and Reforms of the Republic of Kazakhstan, accessed February 7, 2025, <https://stat.gov.kz/en/industries/social-statistics/demography/publications/157662/>.

⁵⁰ Aziz Burkhanov, "Kazakhstan's National Identity Building Policy: Soviet Legacy, State Efforts, and Societal Reactions," *Cornell International Law Journal* 50 issue 1, 2017, <https://scholarship.law.cornell.edu/cgi/viewcontent.cgi?article=1893&context=cilj>.

iv. Low status of teachers

The importance of teachers in the reform of Kazakhstan's educational system and as facilitators of the new education curriculum means that there is a need to attract the best and most competent individuals to join the teaching profession. However, teaching is perceived as a low-status occupation and hence there will be difficulties in attracting talent into the teaching profession in Kazakhstan. The low salaries of teachers also meant that teachers often have a second job to provide for their families, thus affecting their productivity and esteem. While the education sector is the largest employer in Kazakhstan, it is also one of the lowest paying. The low prestige, status and pay of the education occupation, and its heavy teaching workload and non-relevant duties, contributes to the low self-esteem of teachers in Kazakhstan.⁵¹

To enhance the social status of teachers through a reduction of workload, increase in remuneration and recognition of teachers' rights, the Kazakhstan government passed the Law on the Status of Teachers on 27 December 2019 which outlines the rights, obligations and responsibilities of teachers in Kazakhstan. While the Law signifies the government's commitment and has been effective in raising the social status of teachers, more time and monetary resources have to be devoted to the cause with potential budget trade-offs.

E. Recommendations

i. Prioritising the quality and professional development of teachers

The quality of teachers is key to improving students' learning outcomes and the quality of education.⁵² Hence, the professional development of teachers should be prioritised and the quality of training improved to ensure that they have the necessary skills and competency. This is even more urgent with teachers' role in implementing the Renewed Content of Education. Overseas pedagogical training with foreign partners⁵³ would be extremely useful to the professional development of teachers as they can learn from educators of countries that have advanced their educational system. The government needs, among competing resource allocations, to prioritise resources to the professional development of teachers rather than improving other much needed aspects such as infrastructure or increasing the per student funding within the education system.

ii. Improving the quality of scientific research in the field of education

Scientific research in the field of education would involve "the scientific field of study that examines education and learning processes and the human attributes, interactions, organizations, and institutions that shape educational outcomes."⁵⁴ Allocating resources to and improving the quality of scientific research in education in Kazakhstan would help identify potential problems and best practices that will allow for the constant assessment of the quality of educational reforms and fine-tuning of educational policies to meet policy goals and students' needs. This would however entail trade-offs by prioritising research into education over other areas of research that Kazakhstan may similarly require and benefit from.

⁵¹ Kuanysh Tastanbekova, "Teacher Education Reforms in Kazakhstan: Trends and Issues," *Bulletin of Institute of Education, University of Tsukuba* 42 no. 2, 2018: 88–89, <https://core.ac.uk/download/pdf/158327214.pdf>.

⁵² Askarbek K. Kousainov, "The Ways of Improving the Quality of the Secondary Education in the Republic of Kazakhstan," (SHS Web of Conferences 29, 2016), https://www.shs-conferences.org/articles/shsconf/pdf/2016/07/shsconf_eeia2016_01036.pdf.

⁵³ Jolene Ang, "Educators from Singapore Share Knowledge with Counterparts in Kazakhstan," *The Straits Times*, December 14, 2020, <https://www.straitstimes.com/singapore/educators-here-share-knowledge-with-counterparts-in-kazakhstan>.

⁵⁴ Data Quality Campaign, "Turning Data into Information," accessed March 19, 2025, <https://files.eric.ed.gov/fulltext/ED568779.pdf>.

iii. Allowing educational reforms time to adjust to real-world outcomes

As stated by the OECD, countries spend an average of 10 years to reform entire systems of education.⁵⁵ Kazakhstan has managed a complete overhaul of its secondary school curriculum and assessment methods in just five years. The complexity of educational systems and pedagogical reforms requires sufficient time to address and to develop. It is imperative that the various educational reforms are not rushed and are given the requisite time to adjust to real-world outcomes. Time has to be given for data collection in assessment of outcomes because of implementation challenges. It is crucial that quality is not sacrificed in the quest for speed. Nevertheless, time taken would still necessitate budgetary support which in turn involves opportunity costs in the form of budget trade-offs in policy concerns which policymakers would need to be cognisant of.

iv. Increase in proportion of GDP spent on education

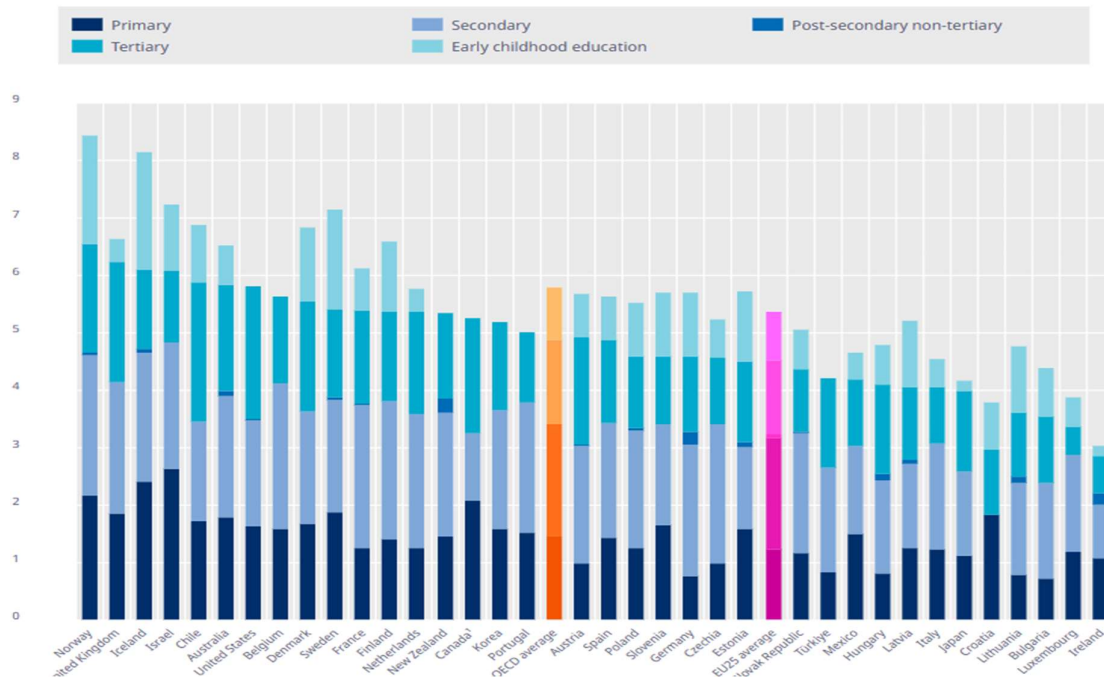
Despite the importance of education in independent Kazakhstan, the proportion of GDP spent on education is still below the average of around 5%⁵⁶ that is spent by OECD countries (see Figure 7). Education spending as a percentage of GDP must increase to allocate much needed resources to schools in Kazakhstan, especially with 67% of schools situated in rural areas and in need of funding for infrastructure, qualified teachers and learning resources. However, increasing educational expenditure comes with policy trade-offs of decreasing funding for competing budget priorities and policy areas such as expenditure on social programmes and healthcare. For instance, according to the Kazakhstan 2050 strategy outlined by the government, improving education is just one of seven long-term strategies for Kazakhstan.⁵⁷

⁵⁵ Colleen McLaughlin, "Reflections and Pathways," in *Mapping Educational Change in Kazakhstan*, ed. Colleen MacLaughlin, Liz Winter and Natallia Yakavets (Cambridge University Press, 2023), 305,

⁵⁶ "Education Financing," OECD, accessed March 20, 2025, <https://www.oecd.org/en/topics/policy-issues/education-financing.html>.

⁵⁷ Please refer to https://www.akorda.kz/en/addresses/addresses_of_president/address-by-the-president-of-the-republic-of-kazakhstan-leader-of-the-nation-nazarbayev-strategy-kazakhstan-2050-new-political-course-of-the-established-state for more information on the Kazakhstan 2050 strategy.

Figure 7: Expenditure on educational institutions as a percentage of GDP, by level of education (2021)



Source: OECD, "What Proportion of National Output is Spent on Educational Institutions?"

https://www.oecd.org/en/publications/education-at-a-glance-2024_c00cad36-en/full-report/what-proportion-of-national-output-is-spent-on-educational-institutions_fd3b88d0.html#chapter-d1e20719-598ac88190.

F. Conclusion

Educational policies in Kazakhstan are constantly evolving, and the education system is finding its footing amidst various challenges. Stakeholders such as teachers, administrators, students and parents have to navigate the many new policies that have been introduced in the educational system since independence. While the Kazakhstan government has invested considerable resources, much more needs to be done. The policy trade-offs of each potential policy will need to be carefully considered before implementation.