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An economic analysis of private and public schooling in Uzbekistan: affordability, investment, and labor market outcomes

Abstract. The article presents an economic comparison of Uzbekistan's dual education system, public and private schools. Based on surveys of 400 households in the country's principal cities conducted in 2024, the study establishes a deep-seated economic difference between the two systems. The average household income for private schools has been placed at 14.5 million thirds, more than double the figure for public schools at 6.8 million thirds. The share of education expenditure in total household income in private schools is 26.2%, compared to 13.2% in public schools. The findings show that 55 percent of the households in public schools and 70 percent of the households in private schools incur additional expenditure on supplementary education. The paper concludes that the existing economic inequality not only limits access to a quality education, but also works to reinforce social and economic inequalities.

Keywords: Economic Analysis; Private and Public Schools; Uzbekistan; Socio-Economic Factors; Educational Equity

JEL Classifications: E24; E41; E64; I18; J28; J31
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1. Introduction

Education is the cornerstone of economic and social development of any country, and its quality determines the future of the workforce and the competitiveness of a country (Kasimov, 2025). In a period like Uzbekistan, where economic and educational reforms are now taking place at an increasing pace, the economic analysis of the system of education is not only an academic option but a necessary strategy (Rejapov et al., 2025). While the contradiction between the two subsystems of public and private education plays a decisive role in the development of human capital and utilization of economic opportunities. This work discusses the two-tier system of public and private education in Uzbekistan from an economic perspective (Gafurov, 2024).

How both these models of quality education work and what do are the economic consequences of their presence for households and the labor market? On one hand, private schools, with the potential for higher quality at high expenses, have emerged as a choice and luxury for the rich (Karimov, 2025; Fazilova & Niyozov, 2025). In the meantime, the state system that is responsible for educating the masses is struggling with budget and resource limitations. The question of how to fix this dilemma is not a question of educational equity alone (Nurova et al., 2024). It directly relates to economic productivity, labor force participation, and national resilience. If access to quality education is based on family income, then the potential of a large section of society is simply untapped, which means loss of human capital and economic growth in the long run (Numanova, 2023). In this scenario, the economic study of Uzbekistan's education system is not an academic endeavor but also a roadmap for policymakers, planners, and investors to build an inclusive and sustainable future. Several research studies have addressed the economic analysis of dual education systems worldwide (Hojiyev, 2024; Sharipov, 2025).

The focus of these research studies has been mainly on concepts such as «education market» and «human capital». These perceptions describe private schools as competitors in a market that provide households with freedom of choice by supplying diverse services (Kasimov, 2025; Gafurov, 2024). Public schools, on the other hand, are described as schools for the implementation of educational justice and the provision of public goods (Rejapov et al., 2025). This theoretical model has provided the basis for examination in the field of economic efficiency, quality and accountability of services in both of these discrete models. With specific relevance to the region and developing countries, the literature draws attention to the socio-economic effects of the expansion of non-public schools (Allakuliev & Sattoriy, 2023).

The study demonstrates that though such schools may ease the burden on the government to some extent by introducing private funds and provide education of a higher quality to a chosen few, in practice they actually add to existing inequalities. These studies warn that the qualitative disparity between public and private schools can reinforce the income gap and lack of opportunities for future generations, thus rolling back social cohesion and mobility of individuals (Odilova, 2025). However, when it comes to the specific example of Uzbekistan, we are confronted with an enormous research literature gap.

Most of the existing research in this country is either descriptive or focused on pedagogical concerns with education, and rigorous economic analysis based on field data is very rare (Sharipov, 2025; Mirzakhadjaeva, 2025). Time and again, there is a clear lack of research simultaneously tackling the three axes of «household expenditure», «government policies» and «linkage to the labor market». Therefore, this article aims to fill this critical lacuna with a perspective of formulating a more realistic understanding of the economic forces shaping the Uzbek education system.

2. Methodology

This study is aimed at analyzing the dual education system in Uzbekistan from an economic perspective. It is applied in purpose and descriptive in data collection method. The type of the study is quantitative and the necessary data were distributed through a researcher-designed questionnaire. This design best facilitates the exploration of the relationship between economic aspects and school type selection.

The population of the study consists of administrators, educators, and especially heads of the families of the students of private and public schools in the major urban areas of Uzbekistan (i.e., Tashkent, Samarkand, and Bukhara). In order to select the sample, a multi-stage cluster sampling method was used. In accordance with this, cities were selected first, then schools within these cities, and finally people were selected randomly. The final sample size was 400 individuals using the Cochran formula and 95% confidence level (Table 1).

Table 1:
Demographic Characteristics of the Research Sample (N = 400)

Variable	Category	Frequency	Percentage
Gender	Male	207	51.8%
	Female	193	48.2%
Geographical Distribution	Tashkent	165	41.3%
	Samarkand	142	35.5%
	Bukhara	93	23.2%
School Type	Public	245	61.3%
	Private	155	38.7%
Role in Education System	School Principal	38	9.5%
	Teacher	120	30.0%
	Household Head	242	60.5%
Education Level (Household Head)	High School or Less	92	23.0%
	Bachelor's Degree	211	52.8%
	Master's Degree or Higher	97	24.2%
Monthly Household Income (USD)	< 400	112	28.0%
	401 - 800	203	50.8%
	> 801 million	85	21.2%
Monthly Supplementary Education Spending	None	132	33.0%
	Low (< 80)	105	26.3%
	Medium (81-160)	163	40.7%
	High (> 161)	0	0.0%

Source: Authors' findings

Data for this study were collected using a researcher-designed questionnaire with three broad sections:

Section One: Economic and demographic attributes, whose data is presented in the table below;

Section Two: Economic factors such as expenditure patterns of the households, ability to pay fees, and ancillary expenses of education;

Section Three: Questions relating to educational quality and labor market linkages.

Both the content validity of the questionnaire through consultation with 10 experts in the economics of education and the reliability through conducting a pilot study of 30 questionnaires and estimating a Cronbach's alpha coefficient of more than 0.7 were established.

3. Results

The findings of this study present the empirical findings of our economic study of private and public schools in Uzbekistan. They are derived from data collected from a sample of 400 respondents, comprising school directors, teachers, and household heads, as discussed under the methodology. The findings are organized around five broad thematic areas: household economic profiles, investment in education, perceived quality of education, future economic opportunities, and the shadow education market.

The analysis of household economic profiles shows a pronounced socio-economic stratification between the two school systems. As shown in Table 2, the average monthly income of households with children in private schools is more than double that of their public-school counterparts. Consequently, absolute monthly education expenditure is significantly higher in private school households. More strikingly, the economic burden of education, represented by the percentage of income spent on schooling, is twice as heavy for private school families. This substantial investment

Table 2:
Household Economic Profile by School Type

Economic Indicator	Public School Mean (Std. Dev.)	Private School Mean (Std. Dev.)
Monthly Household Income (USD)	6.8 (2.1)	14.5 (4.3)
Monthly Education Expenditure (USD)	0.9 (0.3)	3.8 (1.2)
Percentage of Income on Education	13.2%	26.2%
Parents with Master's Degree or Higher	18.5%	41.3%

Source: Authors' findings

is contextualized by the educational attainment of the parents; private school students are more than twice as likely to have a parent with a postgraduate degree, suggesting a household environment that highly values and can financially prioritize advanced education.

Beyond formal school fees, investment in supplementary education, often called «shadow education», is a critical component of the total educational investment. Table 3 shows that households from both sectors engage extensively in this market, though with different patterns and intensities. Most of the private school households (70%) invest in private tutoring, but a substantial majority of public-school households (55%) do so as well, indicating a system-wide reliance on supplementary services. The divergence is most apparent in specialized areas such as foreign language and STEM tutoring, where private school households invest at more than double the rate. The fact that only 5% of private school households report no supplementary investment, compared to 33% of public-school households, underscores a significant gap in the ability to afford a comprehensively competitive education.

Table 3:
Investment in Supplementary Education

Type of Supplementary Service	Public School Households (%)	Private School Households (%)
Private Tutoring (Any Subject)	55%	70%
Foreign Language Courses	25%	65%
STEM-focused Tutoring	30%	58%
No Supplementary Investment	33%	5%

Source: Authors' findings

Perceptions of educational quality and resource adequacy, measured on a 5-point scale, show a consistent and marked disparity between the two sectors. The data in Table 4 shows that private schools are rated significantly higher across all measured indicators. The most considerable gaps are in the quality of physical infrastructure and the student-teacher ratio, with private schools offering smaller class sizes by half. This suggests a direct correlation between financial investment and perceived instructional conditions. Furthermore, respondents believe private schools provide superior preparation for university entrance and better access to digital tools, factors that are crucial for academic and future professional success. These perceived advantages contribute to the economic rationale for households that choose the more expensive private option.

Table 4:
Perceived Educational Quality and Resource Adequacy

Quality Indicator	Public School (Mean Score)	Private School (Mean Score)
Quality of Physical Infrastructure	2.8	4.5
Student-Teacher Ratio	28.5	14.2
Access to Digital Learning Tools	3.1	4.6
Preparation for University Entrance	3.3	4.4

Source: Authors' findings

The economic motivations and expectations of households are vividly captured in Table 5. An overwhelming 91% of private school households view school fees as a worthwhile investment, a sentiment shared by a smaller, yet still significant, majority of public-school families. This highlights a broad, cross-sectoral belief in education as an economic good. However, a confidence gap emerges regarding labor market outcomes. Private school households express significantly higher confidence that their children's schooling provides relevant modern skills and will lead to a high-paying job. This perceived differential return on investment is a powerful economic driver that reinforces the demand for private education and its associated socioeconomic stratification.

Table 5:
Economic Perceptions and Labor Market Expectations

Economic Perception	Public School Agreement (%)	Private School Agreement (%)
«School fees are a worthwhile investment for my child's future»	62%	91%
«My child's school provides skills needed in the modern labor market»	58%	88%
«I am confident my child will secure a high-paying job after graduation»	45%	82%

Source: Authors' findings

The analysis of the education expenditure portfolio, presented in Figure 1, shows underlying economic models for the two groups that are different. For private-school families, the lion's share (68%) of their education expenditure is devoted to the core product: tuition and fees. Public-school families, while spending less in absolute terms, allocate their largest share (45%) to supplementary tutoring. This is to say that public-school families are forced to supplement perceived gaps in the public system through the private tutoring sector, and therefore, they are significant actors in the education economy despite their lower family income. The widespread practice of shadow education would mean that the total cost of a «free» public education is actually high for many families.

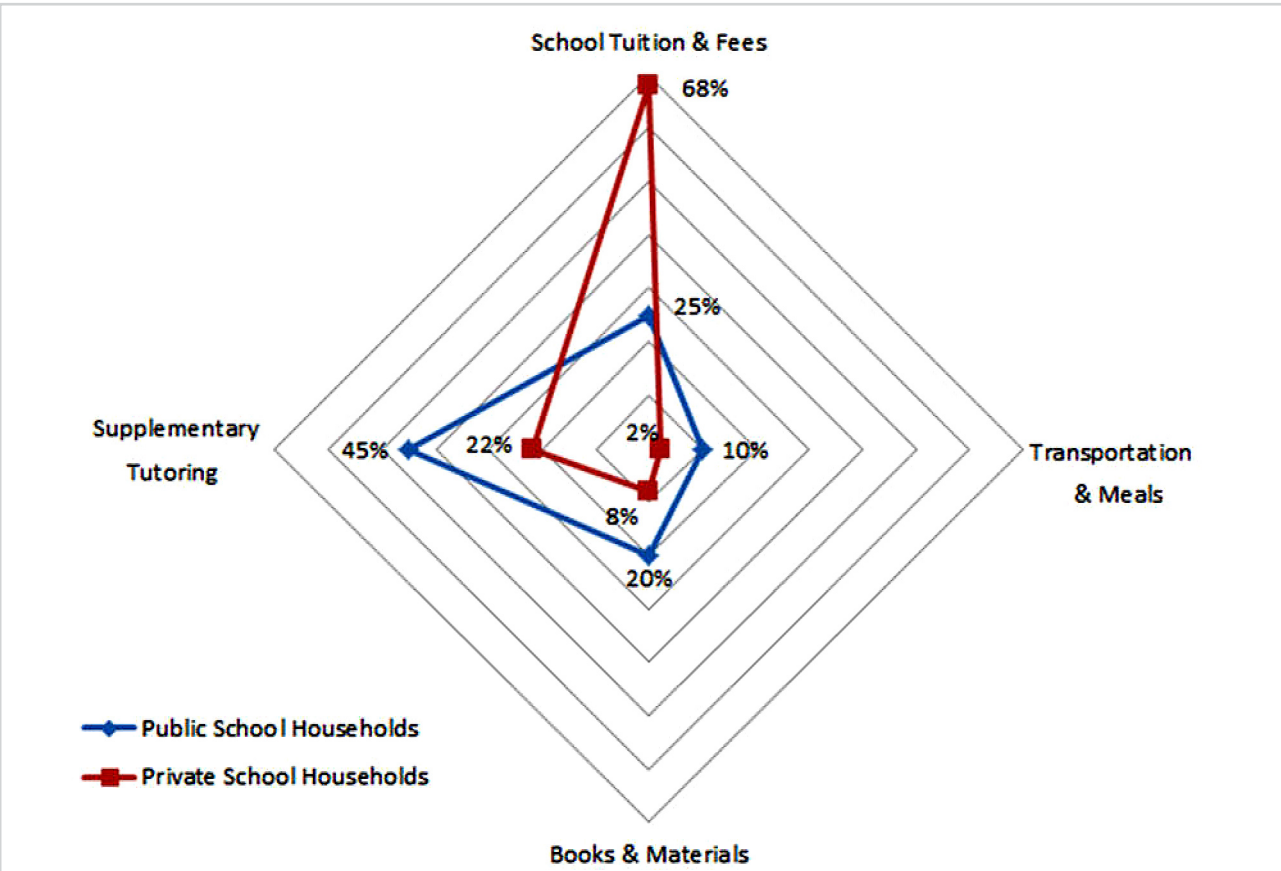

Figure 1:
Distribution of Total Education Spending
Source: Authors' findings

4. Conclusion

The results of this study provide a clear picture of the immense economic divide in the dual education system of Uzbekistan. The data clearly suggests that the choice between attending public and private schools is, first and foremost, a function of the household's economic capacity and, by implication, the parents' assessment of the rate of return on such an investment in the future professional careers of their children. The most striking finding of this study is the broad income gap between the two systems' families; with the average monthly income of families with children in private schools at 14.5 million thirds, more than double the average income of families in public schools, which is 6.8 million thirds.

The income gap is directly reflected in the pattern of spending on education. The proportion of educational spending in total household income in private schools is 26.2 percent, which indicates a high cost burden on these households, as opposed to 13.2 percent for government schools. Another key result is the high and hidden cost of education in the public sector. Although official fees in those schools are low, 55% of government households spend money on private tutoring. This means that the quality of service provided in the public schools is forcing families to invest in the «shadow education market.» Families are essentially paying twice the cost to compensate for the shortcomings of the main system. Economically, 91% of private school parents consider

this expenditure to be a «profitable investment» in their child's future career. They believe so while being 82% certain that their child will have a high-earning career in the future. These figures obviously point toward a «hope gap» alongside an «income gap» compared to the 45% confidence level among parents in public schools.

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