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Extensive Growth and Its Limits: Changes in Uzbekistan's Higher Education System from 1991 to 2025

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Abstract: This article examines the transformation of Uzbekistan's higher education system from 1991 to 2025, using legislation and official statistics as sources. Its empirical foundation includes the yearly publication "Education in Uzbekistan," issued by the National Statistics Committee for the academic years 2020/21–2024/25, alongside legal acts enacted between 1992 and 2024. The study outlines three developmental phases: institutional restructuring with reduced coverage (1991–2000), a period of stabilized restrictions (2001–2016), and a phase of rapid massification (2017–2025). Gross higher education coverage decreased from 17.5% in 1991 to 9% in 2016, then increased to 39% by 2024. Decomposing recent growth reveals that 64.4% of the enrollment increase is due to extramural studies; the non-state sector, emerging almost entirely after 2020, now enrolls 32.3% of all students; and the student-to-staff ratio grew from 17.8 to 28.9. The article depicts this development as extensive growth, highlights its limitations in staffing and regional diversity, and notes the ongoing concentration of doctoral training in the capital.

Keywords: higher education in Uzbekistan, massification, extramural learning, private universities, academic personnel, doctoral programs, center-periphery dynamics, human capital development, and path dependence.

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1. Introduction

The future of higher education in the post-Soviet region has been a key focus in comparative education studies over the last thirty years. Each of the fifteen former Soviet states diverged from the shared model they inherited, with some rapidly adopting the Bologna Process, while others gradually adapted while maintaining strong government oversight [1]. Uzbekistan is closer to the latter approach. For a long time, its higher education system was aimed at a select elite, not the general population, and only after 2017 did it begin transitioning toward broader access.

The pace of this transition is extraordinary. Between 2020/21 and 2024/25, higher education institutions increased from 127 to 222, and student numbers grew from 571.5 thousand to 1,432.8 thousand [2]. Essentially, the system expanded by two and a half times in just five years, compared to its scale over the previous thirty years. Such rapid growth is rare in history and warrants analysis: at whose expense did this growth happen, what institutional structures did it create, and what issues did it leave behind?

The literature on higher education in Uzbekistan can be broadly divided into two problem-based categories. The first includes studies focused on national reforms—covering governance, financing, internationalisation, and educational quality. Researchers have examined the system’s development from perspectives such as economic transition [3], doctoral reforms within institutional economics [4], and financial behavior of institutions using resource dependence theory [5]. Internationalisation, transnational branch campuses, and global rankings have also emerged as distinct themes [6]. The second category involves studies on reform implementation at the provincial level and the institutional histories of individual universities [7]. A key characteristic of the first group is its focus on the republic level, primarily drawing empirical data from capital institutions; in contrast, the second group usually lacks a specific theoretical framework.

The quantitative aspects of the expansion—such as its structural origins, distribution across different study modes and ownership forms, and impacts on staff capacity—remain largely underexplored in scholarly literature. Typically, publications report growth using aggregate indicators and view it as a positive development, overlooking the detailed internal dynamics. This article aims to address that gap.

The aim of the study is to analyse jointly the legal-institutional and the quantitative dimensions of the changes that occurred in the higher education system of Uzbekistan in 1991–2025, and to identify the characteristics of the underlying growth model. Three research questions follow from this aim. First, into which stages can the process of 1991–2025 be divided, and by what criterion are the boundaries between those stages established? Second, from which structural sources did the rapid growth after 2017 arise? Third, what effect did that growth have on the academic staff capacity and on the regional structure of the system? The novelty of the study lies in three elements: it offers the first structural decomposition of the recent expansion on the basis of the 2020/21–2024/25 data of the official statistical compendium; it operationalises the notion of extensive growth on Uzbek material; and it measures quantitatively the degree of regional concentration of post-graduate training.

2. Materials and Methods

2.1 Sources

The empirical foundation comprises three categories of sources. The first category includes normative and legal acts: the Laws “On Education” of 1992 and 2020, the Law “On the National Programme for Personnel Training” of 1997, Presidential Decree No. PF-5847 of 2019 approving the Concept for the Development of the Higher Education System until 2030, Resolution No. 824 of the Cabinet of Ministers of 2020, and Law No. ZRU-957 of 2024. These documents delineate the official intent of state policy and its institutional framework.

The second category pertains to official statistics. The primary source is the annual statistical compendium titled **Education in Uzbekistan**, published by the National Statistics Committee of the Republic of Uzbekistan. This compendium encompasses data from the academic years 2020/21 to 2024/25 and provides detailed reports on the number of institutions, student enrollment figures, the distribution of students based on their mode of study, the composition of academic personnel, and key indicators related to doctoral studies, all disaggregated by region.

The third type consists of retrospective indicators for 1991–2019. Because the current edition of the official compendium does not cover that period, coverage indicators reported and cross-checked in the scholarly literature were used instead.

2.2 Methods of analysis

This study employed four methodologies. The historical-genetic approach mapped legal acts sequentially over time and identified different stages; the statistical-comparative analysis examined changes in both absolute and relative indicators; the structural analysis broke down overall growth into components such as mode of study,

ownership type, and study level; and regional comparison analyzed disparities in indicators across the country. Two key derived indicators were particularly important: the student-to-lecturer ratio (number of students per full-time academic staff) and the regional concentration share (the regional value as a proportion of the national total).

2.3 Limitations

Three limitations should be acknowledged upfront. First, the official compendium currently only begins with 2020/21, making the structural analysis for 1991–2019 less detailed. Second, starting in 2024, PhD holders were included among Candidates of Sciences, causing a break in the degree indicators between 2023 and 2024, as explicitly noted below. Third, official statistics lack direct measures of quality; instead, quality is inferred indirectly through staff workload, the proportion of staff with degrees, and the distribution of study modes.

3. Results and Discussion

3.1 Legal-institutional evolution: three stages

A comparative analysis of the sequence of normative acts in relation to statistical dynamics permits the division of the period from 1991 to 2025 into three distinct stages. The delineation of these stages is determined by the coverage policy criterion—specifically, the practical stance of the state concerning the expansion or restriction of access to higher education. Table 1 provides a summary of the periodisation.

Table 1. Stages in the development of the higher education system of Uzbekistan, 1991–2025

Stage	Years	Principal acts	Coverage policy	Institutional content
I. Institutional restructuring	1991–2000	Law “On Education” (1992); National Programme for Personnel Training (1997)	Contraction: 17.5% → 13.1%	Departure from the Soviet model; bachelor's and master's tiers introduced; institutes converted into universities
II. Stabilised restriction	2001–2016	Sectoral resolutions of the Cabinet of Ministers; admission quotas	Stability at a low level: 10.1% → 9.0%	State monopoly; strict quota control; extramural study discontinued
III. Massification	2017–2025	Decree PF-5847 (2019); Resolution 824 (2020); Law ZRU-637 (2020); Law ZRU-957 (2024)	Rapid widening: 9.0% → 39.0%	Non-state sector opened; extramural study revived; foreign branch campuses; credit-module system; elements of academic autonomy

Source: compiled by the author.

The substance of the first stage was institutional restructuring. The 1992 Law “On Education” and the 1997 National Programme for Personnel Training introduced a two-tier structure — bachelor's and master's degrees — which formally signified convergence with the Western model; the practical outcome, however, was contradictory, since the number of entrants declined in absolute terms even as specialised institutes acquired university status. The second stage is characterised by a state monopoly and strict control of admission quotas: higher education was in effect preserved as a resource for a selected stratum, extramural study was almost entirely discontinued, and non-state institutions remained isolated exceptions.

The third phase commenced in 2017. Its legal culmination was the 'Concept for the Development of the Higher Education System until 2030,' which was approved by Presidential Decree No. PF-5847 dated 8 October 2019. The Concept outlined objectives such as gradually increasing coverage, granting academic and financial autonomy to institutions, implementing a credit-module system, and expanding collaboration with foreign universities. Resolution No. 824, dated 31 December 2020, formalized the practical mechanism of the credit-module system, including the calculation of study load based on the ECTS framework and the recognition of credits between institutions. Law No. ZRU-957 of 2024 aimed to reorganize public administration within the education sector and to enhance the external evaluation system.

3.2 Coverage: from contraction to massification

The quantitative expression of the three stages is clearest in the indicator of gross coverage, presented in Figure 1.

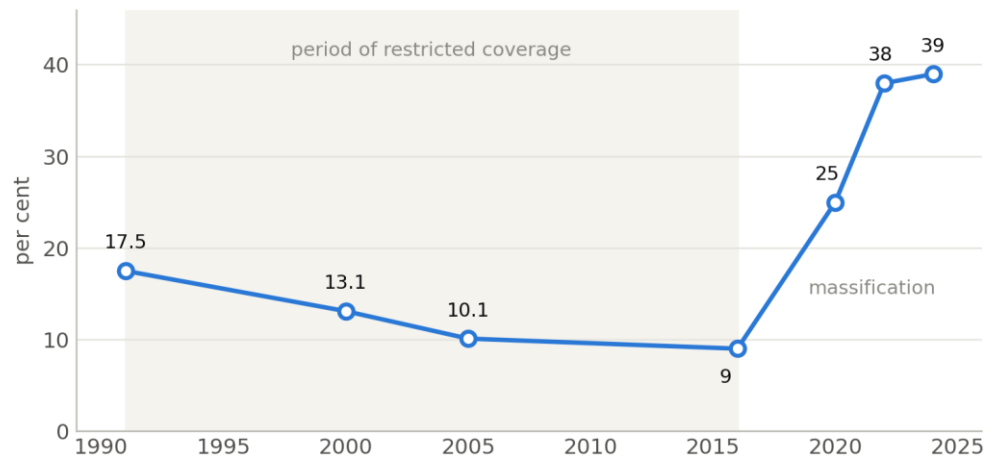


Figure 1. Gross coverage of higher education, 1991–2024 (per cent of the relevant age cohort)

Source: compiled by the author from Ubaydullaeva (2023), Turdikulov (2025) and National Statistics Committee (2025).

The curve's shape clearly illustrates the trend. In 1991, 17.5% of the relevant age group enrolled in higher education. Over the next 25 years, this rate steadily decreased and stabilized at approximately 9% by 2016—nearly halving. However, after 2017, the trend reversed sharply: enrollment climbed to 25% in 2020, 38% in 2022, and reached 39% in 2024.

Two key historical points are relevant here. First, the post-2017 growth was not an emergence into a new phase but a recovery of a previous position: the system initially reverted to its 1991 level before surpassing it. Second, the decline from 1991 to 2016 was not accidental but resulted from a consistent policy — it persisted for twenty-five years and endured through three distinct economic conditions.

3.3 Expansion of the institutional network

The organisational expression of massification is the growth in the number of institutions. Over five years this number rose from 127 to 222 (a factor of 1.75), while student numbers rose from 571.5 thousand to 1,432.8 thousand (a factor of 2.51). The rate of growth of student numbers thus considerably exceeds the rate of growth of institutions, which means that the average enrolment per institution increased: from about 4.5 thousand students in 2020/21 to about 6.5 thousand in 2024/25.

A process of “universitisation” is evident, as the number of universities increased from 64 in 2020 to 140 in 2024. The student population in these institutions grew from 328.7 thousand to 957.4 thousand, with 66.8% of all students now studying at university-

level institutions. Additionally, branch campuses of foreign universities have formed a distinct segment, expanding from 20 to 30 during the same period. Although their growth rate (1.50) is lower than that of the overall system (1.75), these foreign branches remain a stable yet proportionally smaller part of the network. Table 2 summarizes the key indicators.

Table 2. Principal indicators of higher education, 2020/21–2024/25 academic years

Indicator	2020/21	2021/22	2022/23	2023/24	2024/25	Growth
Institutions, units	127	154	191	219	222	1.75
of which foreign branch campuses	20	25	26	30	30	1.50
Students, thousand persons	571.5	808.4	1,042.1	1,314.5	1,432.8	2.51
Students per 10,000 pop.	165	229	289	361.0	385.5	2.34
Admitted, thousand persons	174.9	235.9	282.4	365.2	381.7	2.18
Graduated, thousand persons	83.9	103.9	102.4	184.1	211.2	2.52
Academic staff, persons	32,070	37,364	41,693	45,210	49,633	1.55

Source: National Statistics Committee (2025, pp. 12–13, 117, 151). The final column reports five-year growth as a multiple.

The divergence between the growth rates reported in Table 2 deserves particular attention. Student numbers rose by a factor of 2.51, whereas academic staff numbers rose by a factor of only 1.55. This disproportion bears directly on the internal balance of the system and is examined in section 3.6 below.

3.4 Mode of study: the return of extramural education

The structural analysis of growth yields its least expected result when disaggregated by mode of study, as shown in Figure 2.

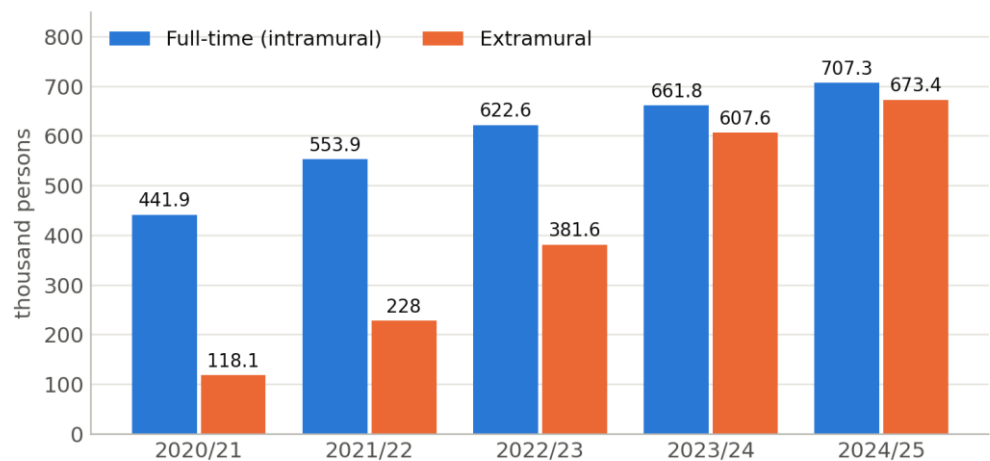


Figure 2. Distribution of students by mode of study, 2020/21–2024/25 (thousand persons)

Source: National Statistics Committee (2025, p. 117).

Over five years, full-time students increased from 441.9 thousand to 707.3 thousand, a 1.60-fold rise, while extramural students grew from 118.1 thousand to 673.4 thousand, a 5.70-fold increase. Consequently, 64.4 percent of the total enrollment growth is due to extramural study.

The significance of this figure is that it reveals the actual mechanism of massification. Expanding full-time provision requires a proportional increase in teaching space, laboratory facilities and established academic posts. Extramural provision is

considerably freer of these constraints: it permits existing infrastructure to be used as an additional shift. The rapid pace of massification was therefore secured precisely through this mode.

The structural change is quite pronounced: the proportion of extramural students in total enrollment increased from 20.7% in 2020/21 to 47.0% in 2024/25. Currently, half of all students study extramurally, a mode that had nearly disappeared before 2016.

3.5 Formation of the non-state sector

The second key driver of massification is the rise of the non-state sector. The number of non-state institutions increased from just 5 in 2020/21 to 17, then 42, 91, and ultimately 99 by 2024/25 — essentially building this segment from scratch — while student enrollment in these institutions grew from 1.6% to 4.7%, 9.4%, 26.1%, and finally 32.3% of total students [8].

This indicator is best assessed comparatively. In most post-Soviet countries, the non-state sector took shape in the early 1990s and had stabilized by the 2000s [9]. In Uzbekistan, it appeared a quarter of a century later, but the speed of its formation compensated for that delay: within five years, the sector absorbed one third of all students.

Such rapid growth is the joint outcome of two factors. The first is the legal consolidation of the public–private partnership concept and the simplification of licensing procedures. The second is the unmet demand generated by admission quotas in state institutions that fell short of the demand for places [8].

3.6 Academic staff capacity and workload

The most tangible consequence of extensive growth appears in the workload borne by academic staff (Figure 3).

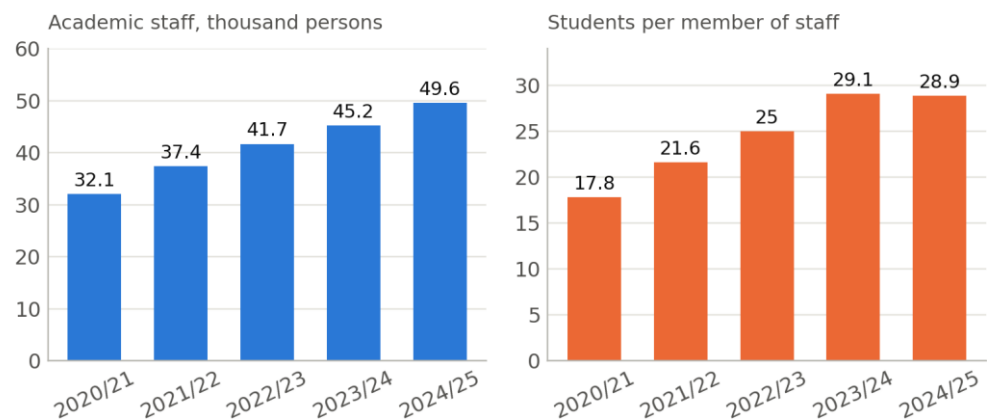


Figure 3. Academic staff and students per member of staff, 2020/21–2024/25

Source: National Statistics Committee (2025, p. 151); ratio calculated by the author.

The number of established (full-time) academic staff rose from 32,070 to 49,633. In absolute terms this is substantial growth. Measured against student numbers, however, the picture changes: the number of students per member of staff rose from 17.8 to 28.9, that is, the workload increased by 62 per cent in five years [9].

Two factors qualify this indicator: the proportion of staff working full time decreased from 82.7% to 77.1%, indicating that some of the increased workload was handled through part-time employment. Additionally, staff on secondary employment rose from 5,575 to 11,345, more than doubling (a factor of 2.04), which further suggests staff shortages. Indicators related to research capacity should be considered separately (see Figure 4).

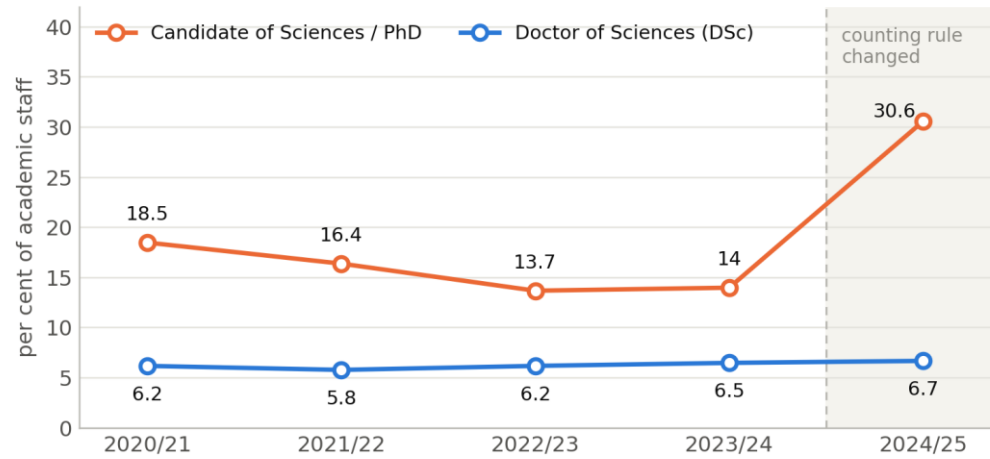


Figure 4. Share of academic staff holding academic degrees, 2020/21–2024/25 (per cent)

Source: National Statistics Committee (2025, p. 151). Note: from 2024 holders of the PhD degree were included among Candidates of Sciences, so the final point is not directly comparable with the preceding ones.

The share of holders of the degree of Doctor of Sciences remained within the range of 5.8–6.7 percent throughout the period. The share of Candidates of Sciences fell from 18.5 percent in 2020/21 to 14.0 percent in 2023/24. This decline is natural: most newly recruited teachers hold no academic degree, and their number grew faster than the number of degree holders.

The figure of 30.6 percent for 2024/25 results from a change in methodology and is not directly comparable with earlier years. If the 2023/24 data are recalculated on the same basis, Candidates of Sciences (14.0 percent) and holders of the PhD (14.9 percent) together accounted for 28.9 percent — so the real change was an increase from 28.9 to 30.6 percent, not from 14.0 to 30.6 [10].

The position with regard to academic titles is comparatively stable: the share of professors rose from 4.3 to 5.2 percent and the share of associate professors from 14.6 to 17.5 percent. In contrast to the stagnation in the share of degree holders, this growth indicates an intensification of the process of conferring titles.

3.7 Regional distribution

The regional dimension of massification shows that the historically formed asymmetry of the system has been preserved (Figure 5).

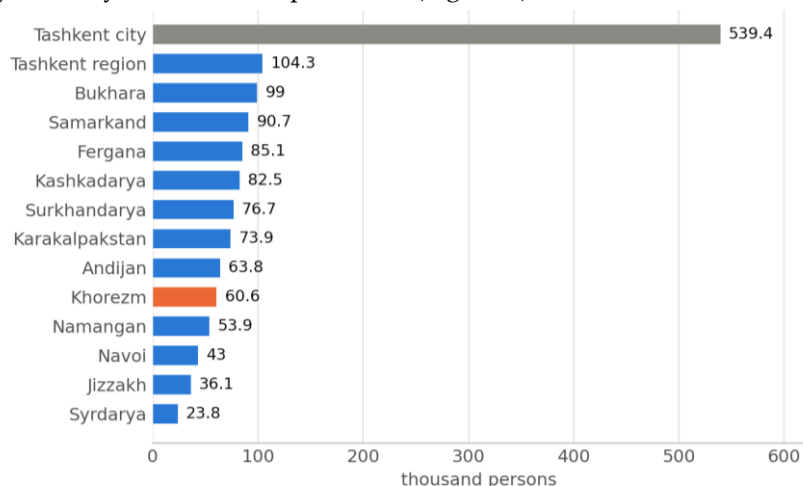


Figure 5. Distribution of students by region, 2024/25 academic year (thousand persons)

Source: National Statistics Committee (2025).

In 2024/25, of the 1,432.8 thousand students in the country, 539.4 thousand — that is, 37.6 per cent — were located in the city of Tashkent. This share is several times higher than the capital's share of the national population. Among the remaining thirteen regions the highest figure was recorded in Tashkent region (104.3 thousand) and the lowest in Syrdarya region (23.8 thousand). Khorezm region, with 60.6 thousand students, occupies an intermediate position [11].

The asymmetry intensifies at the level of post-graduate education, as Table 3 shows.

Table 3. Regional distribution of students in basic doctoral studies, 2020 and 2024 (persons)

Region	2020	2024	Growth	Share, %
Republic of Uzbekistan	2,674	7,992	2.99	100.0
Tashkent city	1,557	3,088	1.98	38.6
Samarkand region	128	1,093	8.54	13.7
Namangan region	38	473	12.45	5.9
Bukhara region	165	468	2.84	5.9
Fergana region	18	438	24.33	5.5
Republic of Karakalpakstan	136	387	2.85	4.8
Tashkent region	201	377	1.88	4.7
Andijan region	175	376	2.15	4.7
Khorezm region	94	291	3.10	3.6
Navoi region	56	279	4.98	3.5
Syrdarya region	44	230	5.23	2.9
Surkhandarya region	–	230	–	2.9
Kashkadarya region	44	199	4.52	2.5
Jizzakh region	18	63	3.50	0.8

Source: National Statistics Committee (2025, p. 162). Shares calculated by the author.

Table 3 highlights two contrasting trends. First, centralisation has decreased: in 2020, about 58.2% of all basic doctoral students were in Tashkent, but this fell to 38.6% in 2024. The establishment of doctoral institutes in regional areas caused this shift of nearly twenty percentage points. However, 38.6% remains a significant share, meaning one city accounts for nearly two-fifths of all doctoral candidates nationwide. Additionally, regional disparities are considerable: for example, Samarkand region has 1,093 candidates, while Jizzakh has only 63—a seventeenfold difference [12].

Khorezm region occupies a distinctive position in this distribution. By student numbers the region ranks tenth among the fourteen territorial units (60.6 thousand, or 4.2 per cent), and by the number of doctoral candidates ninth (291, or 3.6 per cent). Its share in the training of research personnel is thus lower than its share in the student body.

3.8 The model of extensive growth

Taken together, the results above describe a definite model, which may be termed a model of extensive growth. It has three attributes [13].

The first attribute is that the principal sources of growth are forms requiring little resource commitment: extramural study accounts for 64.4 percent of total growth, and 32.3 percent of students are enrolled in non-state institutions that receive no budgetary funding. The second is that the staff base lags behind the expansion — student numbers rose by a factor of 2.51, compared with 1.55 for academic staff, so the teaching load increased by 62 percent while the share of staff holding degrees remained virtually unchanged.

The third is the primacy of quantitative indicators as policy objectives: official documents identify the coverage ratio, the number of institutions, and the number of students per 10,000 population as the principal outcome measures, whereas quality indicators — graduate employment, research productivity, staff composition — occupy a comparatively secondary place [14].

Such a model is not historically unique. From the standpoint of human capital theory, it is rational: economic growth requires a qualified labor force, and the fastest way to build one is to expand coverage [15]. Yet human capital theory itself emphasizes that the quality dimension of education is decisive: coverage alone yields no economic return unless it is accompanied by a rise in cognitive skills [16]. In this sense, the Uzbek system now stands at a critical point on its growth trajectory.

3.9 Institutional form and its content

From the standpoint of institutional theory, a large part of the reforms introduced at the third stage exemplifies normative isomorphism: the system adopts internationally recognised forms — credit-module organisation, academic autonomy, external accreditation, foreign branch campuses — because those forms confer legitimacy [17].

The key issue is the relationship between form and content. The credit-module system was officially established through Resolution No. 824 of 2020, yet its practical implementation—such as credit transfers among institutions, students' course choices, and alignment of study load with ECTS standards—needs further independent review. Similarly, academic autonomy is limited: while rectors have the authority to decide the makeup of attestation commissions and the structure of the academic week, core decisions on finances and staffing still rest with the central authorities. This trend is also evident in other post-Soviet countries [18]; in Uzbekistan, the difference is particularly clear, as the structural change occurred within five or six years.

3.10 Centre and periphery

The third issue is the persistence of regional asymmetry — a question that has remained largely unexamined in the historiography of Uzbekistan's higher education.

The statistical data reveal a two-tier structure [19]. At the first tier — the student body — the distribution is relatively even: outside the city of Tashkent, the gap between regions does not exceed a factor of four. At the second tier — postgraduate education — the distribution is markedly uneven: the capital accounts for 38.6 percent, and the gap between regions reaches a factor of seventeen [20].

This structure implies that regions mainly focus on training undergraduates, while most research personnel training occurs in the central institute [21]. As a result, provincial institutions have limited capacity to expand their academic staff independently. However, data from 2020–2024 suggests this reliance is decreasing, with the centre's share dropping from 58.2% to 38.6% after establishing fundamental doctoral institutes in the regions. Therefore, the relationship between the centre and periphery should be viewed as a fluid, evolving process rather than a fixed state [22].

3.11 The Soviet legacy and path dependence

Finally, the prolonged contraction of coverage in 1991–2016 requires separate explanation. It cannot be accounted for by resource scarcity alone: between 2005 and 2016 the national economy grew steadily, yet the coverage ratio remained at around 10 per cent [23].

The concept of path dependence offers a useful framework. The Soviet model was rigidly tied to the requirements of a planned economy: admission quotas were set on the basis of the projected demand for specialists. After the planned economy was abolished, the mechanism of setting quotas centrally survived while the logic underlying it changed — it was now tied not to demand but to budgetary capacity, so that for twenty-five years the system determined its own size by internal administrative logic [24]. The massification that began in 2017 is the outcome of the breakdown of that mechanism. What is notable, however, is that the mechanism itself was not abolished: admission to state institutions is still governed by quotas, and the expansion occurred largely outside

it. Institutional change took place not by replacing the old mechanism but by creating a new channel alongside it [25].

3.12 Limitations of the findings and directions for further research

The conclusions are based on official statistics and are consequently limited: such indicators reliably reflect quantitative parameters but do not directly address the content of the educational process [26]. Three questions remain unanswered — the actual organisational model of extramural teaching, the staff composition of non-state institutions relative to those of state institutions, and the degree to which the credit-module system operates in practice. Addressing these issues necessitates the use of institution-level documents, archival materials, and qualitative methods; at the regional level, the holdings of provincial state archives, an underutilized resource, are of particular significance [27].

4. Conclusions

The period 1991–2025 may be divided into three stages by the criterion of coverage policy: institutional restructuring with contracting coverage (1991–2000), stabilised restriction (2001–2016) and rapid massification (2017–2025). The boundaries are determined not by the dates on which legal acts were adopted but by the turning points in the coverage ratio. Second, gross coverage fell from 17.5 per cent in 1991 to 9 per cent in 2016 and rose to 39 per cent in 2024; part of the growth after 2017 was not an advance to a new level but the restoration of the position held on the eve of independence. The principal sources of growth in 2020–2024 were extramural study (64.4 per cent of the total increase) and the non-state sector (32.3 per cent of all students). Neither form requires capital investment by the state. This provides the ground for describing the growth model as extensive. Extensive growth imposed a considerable burden on the staff base: the number of students per member of academic staff rose from 17.8 to 28.9, the number of staff on secondary employment doubled, and the share of staff holding academic degrees remained virtually unchanged. Regional asymmetry has a two-tier structure: although the student body is distributed comparatively evenly, post-graduate education remains concentrated in the centre, even though centralisation fell from 58.2 to 38.6 per cent between 2020 and 2024 following the opening of doctoral institutes in the regions. Sixth, the next stage of the system's development requires a transition from quantitative expansion to quality parameters — strengthening the composition of academic staff, creating mechanisms to assure the quality of extramural provision, and distributing the training of research personnel across the regions.

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