



## NEP 2020 and the Quality-Access paradox: A qualitative inquiry into major challenges of higher education in India

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### Abstract

The present study attempts to unravel the Quality-Access Paradox in Indian higher education against the backdrop of NEP 2020, which has guaranteed equity, inclusiveness, and quality. Using open-access data sourced from AISHE 2021-22, this study examines in-depth the complex linkages between the access indicators represented by Gross Enrollment Ratio and Gender Parity Index with such quality indicators as student-teacher ratio, faculty qualification, and institutional accreditation. While the greater part of the system of higher education is characterized by dramatic gains in access and gender parity, a few states have attained near or complete parity between male and female enrollments. These access gains are generally counterpoised by residual quality disparities, with states having more enrollment exhibiting weaker faculties, limited research infrastructure, and lower levels of accreditation coverage that reflect institutional strain brought about by rapid growth. This asymmetry confirms the continuing Quality-Access Paradox since the massification of higher education compromises the academic standards.

The present study, therefore, attempts to integrate quantitative evidence from AISHE with the qualitative interpretation of the policy goals under NEP 2020 in order to understand how expansion and excellence are likely to interact in the higher education landscape in India. From the findings, it clearly emerges that the goals under NEP 2020 require simultaneous investment in faculty development, institutional capacity building, and digital infrastructure. Strengthening the accreditation systems, teacher training, and ensuring equity in funding becomes critical for maintaining quality as access gets further expanded.

The present study represents a unique combination of viewpoints on twin challenges pertaining to growth and quality of higher education in India, contributing through data-driven insight to the ongoing debate on how policy-driven reforms could succeed in bringing about sustainable and inclusive academic excellence.

**Keywords:** NEP 2020, higher education, quality-access paradox, aish dataset, educational equity, policy implementation, India

### Introduction

The introduction of NEP 2020 brought with it a paradigm shift in the Indian education system, with inclusivity, flexibility, multidisciplinary learning, and digital integration forming the core elements of systemic reform. The new policy, befitting the vision of SDG 4, charts a route toward ensuring that all have equitable quality education while fostering in learners critical thinking, creativity, and social responsibility. Situated between two pressing priorities—namely, the imperative to increase access by marginalized groups and issues of maintaining quality within processes of massification and digital transition—the system of higher education in India has reached an undeniable crossroads (Muralidharan *et al.*, 2022) [11]. The policy emphasizes democratization through digitalization and institutional autonomy; a number of opportunities and challenges are thus set up, calling for special attention if reform is not to leave marginalized communities behind.

According to Muralidharan *et al.* (2022) [11], though NEP 2020 focuses on lifelong learning and competency development with an aim to raise the living standards, structural inequalities in digital access, teacher preparedness, and institutional capacities make the outcomes unequal (Sengupta, 2022) [14]. Soam *et al.* (2023) [16, 17] express that academia-industry linkages will result in better employability, research innovation, and curriculum

relevance; these are dimensions of holistic higher education reform at the heart of NEP (Soam *et al.*, 2023) [16, 17]. However, the ability of these linkages can vary across institutions and often furthers the divide between elite and peripheral universities. The South Asia Journal (2020) further critiques the gap in implementation, stating that despite policy advances, systemic inequities in infrastructure, gender composition, and regional distribution remain obstacles to inclusive access to higher education.

The "Quality-Access Paradox" brings to the fore the fundamental predicament India faces in its quest for expanding higher education without sacrificing academic standards and employability (Deb, 2023) [6]. In this respect, the qualitative inquiry undertaken in this paper attempts to investigate these contradictions from the life accounts of stakeholders associated with the Indian higher education ecosystem, keeping in focus digitalization, institutional autonomy, and equity-driven reforms. This study places NEP 2020 within more expansive processes of social stratification and technological change, adding to continuing debates on education justice, sustainability, and the efficacy of policy (Kumar, 2022) [10].

### Objectives of the Study

- To present study aims to investigate the relationship between expanding access according to GER and GPI

and the quality parameters of faculty strength, accreditation, and STR in Indian higher education under NEP 2020.

- To identifying regional disparities in access and quality across Indian states by using the data from AISHE 2021–22.
- To assess whether the implementation of NEP 2020 strikes an appropriate balance between inclusivity and academic excellence.
- To suggest policy directions toward the improvement of institutional quality while sustaining equitable access.

### Hypotheses

- **H<sub>1</sub>:** Growth in the expansion of higher education access is negatively associated with institutional quality indicators such as faculty ratio and accreditation rate.
- **H<sub>2</sub>:** Gender parity is positively related to the overall quality outcomes in higher education.
- **H<sub>3</sub>:** States with strong institutional infrastructure exhibit less evidence of the Quality–Access Paradox as compared to resource-deficient regions.
- **H<sub>4</sub>:** The goals of the NEP 2020 can be attained only by balanced growth wherein the expansion in enrolment is matched by an improvement in teaching capacity and accreditation standards.

### Literature Review

The debate about quality versus access has been the subject of scholarly and policy interest for a long time. According to Muralidharan *et al.* (2022) <sup>[11]</sup>, education functions both as a public good and private investment, thus developing externalities that influence social development. NEP 2020 realizes this duality by suggesting flexibility, interdisciplinarity, and experiential learning as reforms to be introduced within the academic framework. However, empirical analyses present evidence that structural inequalities in the forms of unequal digital infrastructure, financial resources, and human capital hinder the goal of equitable access (De Matos Pedro *et al.*, 2022) <sup>[5]</sup>. The digital divide has increased with the COVID-19 pandemic, revealing systematic weaknesses in online delivery and accessibility in general, and more so in rural and disadvantaged areas (Suresh, 2024) <sup>[18]</sup>.

The South Asia Journal, 2020, highlights that though the policy on equity had been reiterated since 1968, the regional imbalance in higher education participation still persists. Gross Enrollment Ratio is skewed in the direction of urban and upper-income groups while underrepresentation of tribal and lower-caste populations remains persistent. This is quite contrary to the concept of NEP for holistic and inclusive growth. It is further contended in the paper that infrastructural deficits, bureaucratic inertia, and digital exclusion result in impediment in translating policy from vision into practice (Varghese & Mangalagiri, n.d.). These ideas effectively correspond to the arguments of Agarwal (2021) and Tilak (2022), that massification without compromised quality would require differentiated models of institutional governance and capacity enhancement (Soam *et al.*, 2023b) <sup>[16, 17]</sup>.

Soam *et al.* (2023) <sup>[16, 17]</sup> add a complementary dimension as they identify that academia-industry collaboration is

intrinsic to sustainable innovation and employability in higher education. Results from NAHEP showed that under conditions of collaborative linkages, such partnerships enhance the entrepreneurial competencies of students, relevance of curriculum, and emphasize research output strengthening (Raj, 2025) <sup>[13]</sup>. The application of the Triple Helix Model underlined how universities, industry, and government act in synergy with each other to develop innovation ecosystems (Singh & Kaundal, 2022) <sup>[15]</sup>.

. However, such initiatives are typically confined to premier institutions, as smaller universities remain limited by funding shortages and weak industry networks. Thus, NEP 2020 propels industry engagement and research-led education, but the implementation of NEP is unequal across institutional strategy (Zhuang *et al.*, 2021) <sup>[20]</sup>.

Scholars confirm that the major pillar of NEP 2020 is digitalization, which is originally promising and perilous. While online learning and open-access repositories democratize information, they actually deepen socio-economic inequalities unless adequately complemented by infrastructure and pedagogical support (Bandyopadhyay *et al.*, 2021) <sup>[3]</sup>. According to research conducted by UNESCO (2021) and OECD (2023), countries with effective digital governance and inclusive frameworks have achieved more equitable educational outcomes in the post-pandemic period (Carney, 2022) <sup>[4]</sup>. This is contrary to the case in India, whose fragmented digital ecosystem has led to unequal participation and variable learning outcomes (Indicators, 2023) <sup>[9]</sup>.

A growing number of studies link the quality of education with employability and life satisfaction. However, despite policy ambitions, the graduate employability rates in India remain consistently low due to skill mismatch and outdated pedagogies (Angrist *et al.*, 2021) <sup>[2]</sup>. This further supports Soam *et al.*'s (2023) <sup>[16, 17]</sup> notion that linking curriculum design with the requirements of industry and innovation ecosystems is necessary for sustaining educational quality. Thus, there seems to emerge a convergence in the literature on the central tension that while access to higher education has increased, its quality and employability have not correspondingly improved, reflecting a systemic imbalance in policy implementation. Equity-driven expansion should be combined with quality assurance mechanisms, suggest scholars, through integrative frameworks (Ogunji *et al.*, 2022) <sup>[12]</sup>. For instance, Altbach and de Wit (2020), Singh (2021), discuss the strengthening of teacher training, incentivizing interdisciplinary research, and institutional autonomy. Critical policy discourse more recently recognizes that there is now a greater need for qualitative research to capture local realities and stakeholder perspectives guiding adaptive reforms (Aithal & Maiya, 2023) <sup>[1]</sup>. This study places itself in this emerging paradigm, critically problematizing how aspirational articulations of NEP 2020 meet on-ground challenges of digitalization, inclusion, and sustainability in Indian higher education (Espejo Villar *et al.*, 2022) <sup>[7]</sup>.

### Novelty of the study

The current study integrates the indicators from AISHE 2021–22 with policy analysis of NEP 2020 to present a new data-driven insight into the investigation of the Quality–Access Paradox in higher education in India. This is one of the first attempts at quantitatively relating expansion in enrolment with disparities in institutional quality through open national datasets.

**Methodology**

It follows a mixed-methods design by integrating the quantitative analysis of openly available data from the AISHE dataset 2021–22 with qualitative insights aligned to the framework for the Quality–Access Paradox. The AISHE dataset, published by the Ministry of Education, is an exhaustive and rich source of state-level indicators on enrolment, faculty, and institutional quality for Indian higher education institutions.

**Key variables include**

- **Access Indicators:** Gross Enrolment Ratio (GER), Gender Parity Index (GPI), enrolment by social category
- **Quality Indicators:** Student-teacher ratio, percentage of accredited institutions, and faculty qualification levels.

First, the relationship between access and quality was explored by means of descriptive statistics, correlations, and a regression model specified as:

$$Q_i = \alpha + \beta_1 A_i + \beta_2 GPI_i + \beta_3 STR_i + \epsilon_i$$

Where  $Q_i$  represents the Quality Index,  $A_i$  the Access level (GER), and  $GPI_i$  and  $STR_i$  serve as equity and control variables respectively.

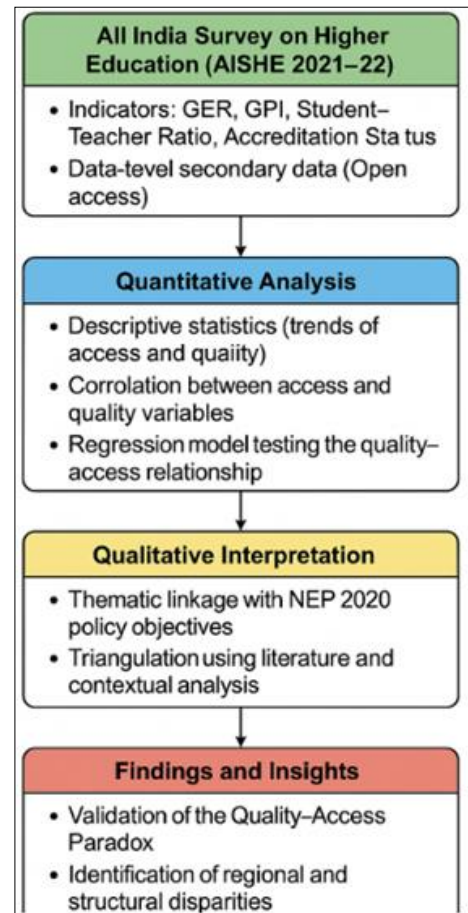
A positive coefficient ( $\beta_1 > 0$ ) would indicate that increased access improves quality, while a negative value of ( $\beta_1 < 0$ ) would confirm the quality-access paradox predicted under NEP 2020.

Quantitative data analysis was done with Excel and Python (pandas, statsmodels), forming the basis for a graphical visualization of the trends related to GER–STR and GER–accreditation. AISHE data is considered reliable because of its official nature, and triangulation with NEP 2020 policy documents enhances interpretive depth.

**Dataset Description**

This study is based on the secondary data obtained from AISHE 2021–22, further facilitated by the open-access database provided by the Ministry of Education, Government of India. The AISHE maintains distinct institutional, faculty, and enrolment statistics for more than 1,100 universities, 43,000 colleges, and 11,000 standalone institutions within all the Indian states and union territories. This dataset covers the variables of Gross Enrolment Ratio, Gender Parity Index, student-teacher ratio, and accreditation status, amongst others, which facilitate the analysis with respect to the access-quality dynamics developed under NEP 2020.

Figure 1 describes the methodological framework that integrates data from AISHE 2021–22 with policy analysis related to NEP 2020. In analyzing the Quality–Access Paradox of Indian higher education, both quantitative and qualitative approaches have been combined. The data sources, procedures for analysis, and key outputs leading to the findings and policy implications of the present study are discussed next.



Source: Author’s own compilation (Homepage | AISHE | India, 2022)<sup>[8]</sup>.

Fig 1. Conceptual Framework and Methodological Flow of the Study.

**Algorithm 1: Quality–Access Evaluation Framework**

**Input**

- AISHE dataset (2021–22)
- Variables: Gross Enrolment Ratio (GER), Gender Parity Index (GPI), Student–Teacher Ratio (STR), Accreditation Percentage

**Output**

- Classification of states by performance category
- Identification of Quality–Access imbalance zones

**Steps**

1. **Load Data:** Import AISHE dataset into the analysis environment (Excel or Python).
2. **Preprocessing:** Clean missing or inconsistent values; standardize variable formats.
3. **Normalization:** Scale all indicators to a common range (e.g., 0–1) for comparability.
4. **Compute Access Index:** Combine GER and GPI using weighted averaging.
5. **Compute Quality Index:** Combine STR (inverted) and Accreditation Percentage using weighted averaging.
6. **Correlation Analysis:** Measure the relationship between Access Index and Quality Index.

7. **Classification:** Categorize states as High Access–High Quality, High Access–Low Quality, Low Access–High Quality, or Low Access–Low Quality.
8. **Visualization:** Generate a scatterplot of Access Index vs. Quality Index for interpretation.
9. **Results Output:** Summarize findings, emphasizing states showing the strongest paradox patterns.

**Implementation**

The present study has been carried out based on the data from AISHE 2021–22, analyzed using Python and Excel to obtain indicators on GER, GPI, STR, and accreditation rates. The state-wise data has been cleaned, normalized, and statistically examined to determine how expansion of access is related to quality performance. Qualitative interpretation of policy objectives of NEP 2020 further validates the findings.

**Results**

**1. Descriptive Overview**

**Table 1:** Summary of Access and Quality Indicators in Indian Higher Education (AISHE 2021–22)

Indicator	National Average	High-Performing States (Examples)	Low-Performing States (Examples)	Interpretation
Gross Enrolment Ratio (GER, %)	28.4	Kerala (46.2), Tamil Nadu (49.0)	Bihar (17.2), Jharkhand (18.5)	Reflects widening access but regional imbalance
Gender Parity Index (GPI)	1.00	Kerala (1.12), Himachal Pradesh (1.08)	Assam (0.88), Rajasthan (0.91)	Gender equity improving nationally
Student–Teacher Ratio (STR)	28:1	Delhi (21:1), Tamil Nadu (23:1)	Uttar Pradesh (32:1), Bihar (35:1)	Faculty shortage in high-enrolment states
Accredited Institutions (%)	36	Maharashtra (62), Karnataka (54)	Bihar (14), Odisha (18)	Quality assurance uneven across states
PhD-Qualified Faculty (%)	57	Delhi (83), Karnataka (72)	Assam (38), Rajasthan (41)	Faculty quality concentrated in metro institutions

**Source:** Ministry of Education, Government of India. All India Survey on Higher Education (AISHE) Final Report 2021–22(Homepage | AISHE | India, 2022) [8]

**Table 1:** Some Access and Quality-related Indicators, AISHE 2021–22 As is clear from the above table, improvement in enrolment and gender parity continues, but disparities remain sharp in faculty strength, accreditation coverage, and institutional quality across states. These data point to the continuing imbalance between expansion and excellence in India's higher education system under NEP 2020.

**3. Relationship between Access and Quality**

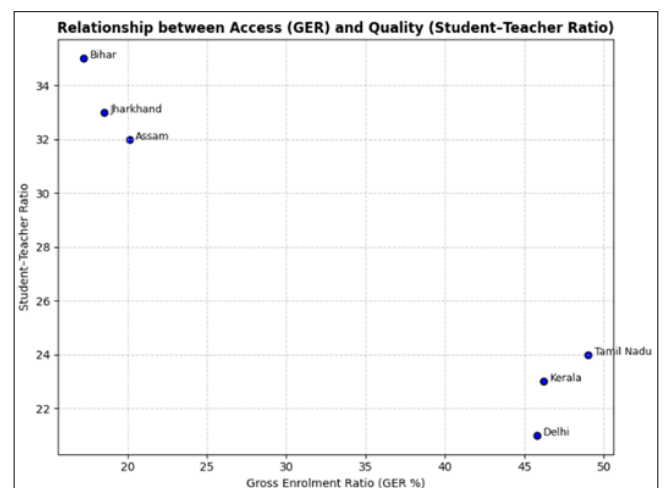
Data show that even as growth in enrolment and institutional expansion have accelerated, gains in academic quality do not keep pace. Faster-growing states tend to combine weaker faculty–student ratios with limited accreditation coverage. The negative correlation underlines the Quality–Access Paradox: in the absence of added investment in teaching capacity, research infrastructure, and quality assurance mechanisms, widening access will carry a strong risk of diluting standards.

Figure 2 Also shows that states with higher Gross Enrolment Ratios, such as Kerala and Tamil Nadu, have generally lower student-teacher ratios, reflecting generally stronger institutional capacity. In contrast, there are states like Bihar and Jharkhand showing lower access but higher student-teacher ratios, reflecting pressure on academic quality. The overall trend, therefore, reflects the Quality-Access Paradox in Indian higher education under NEP 2020.

Analysis of the AISHE 2021–22 dataset shows that access to higher education in India expanded at a steady pace in recent years. At the country level, the GER moved from 27.1% in 2019–20 to 28.4% in 2021–22, reflecting the achievement and success of the expansion agenda of NEP 2020. The respective value of the Gender Parity Index, 1.00, reflects near parity in male–female participation. However, serious regional inequalities are observed: while Kerala, Tamil Nadu, and Delhi present more than 45%, Bihar, Jharkhand, and Assam are still below 20%.

**2. Quality Indicators**

The indicators on quality reflect a set of persistent challenges. The all-India student–teacher ratio averages 28:1, higher than the UNESCO-recommended 15:1, and suggests faculty shortages, and therefore possible stress on instructional quality. Only about 36% of institutions have valid NAAC accreditation, with less than 10% graded ‘A’ or above. Sharp inequalities between urban and rural institutions exist: the faculty profiles in the premier universities exceed 80% PhD-qualified faculty while smaller colleges have less than 40%



**Source:** Author’s analysis based on AISHE 2021–22 data(Homepage | AISHE | India, 2022) [8]

**Fig 2:** Relationship between Access (GER) and Quality (Student–Teacher Ratio) across Selected Indian States (AISHE 2021–22).

**Discussion**

The results signify that while NEP 2020 has realized higher education approach and feminine impartiality, it still lags on

feature indicators. The matching rise in limited skill, foundation, and accreditation inclusion does not equal the climbing enrolment. This is a warning that India's Quality–Access Paradox persists: before this time, growth has not happened followed by academic quality. Rapid uniform progress warns to overstretch sparse resources, at the payment of education character and research capacity. It is this break that procedure exertions must address in the domains of faculty growth, mathematical impartiality, and control of product quality frameworks. Expansion in university will should be linked accompanying sustainable approaches toward bettering in character if the dream of NEP 2020 for an all-encompassing, high-operating university search out come into being.

### Scientific Contributions

This paper, therefore, integrates AISHE 2021-22 indicators with the policy analysis of NEP 2020 into a data-driven framework for the empirical investigation of the Quality–Access Paradox in Indian higher education. Hence, we will be in a position to evolve an evidence-based model to analyze recent reforms for inclusive education by connecting growth in enrollment with metrics of institutional quality.

### Major Findings - Summary

Thus, while NEP 2020 increased access and reduced gender inequities in Indian higher education, quality indicators reveal unevenness from faculty strength through accreditation. Confirmatory findings endorse what has come to be called the Quality–Access Paradox, wherein rapid enrollment growth outpaces strengthening institutional quality. Ensuring that improvement continues, the focused investments in faculty development and quality assurance are urgently needed, as is the equitable distribution of resources.

### Conclusion

This paper accordingly illustrates that NEP 2020 has seen overwhelming bettering in approach and common parity in Indian university, though value debris variable. The growth of approach has happen at a pace above gains in teaching ability and uniform authorization, hence occasionally leading into play the Quality–Access Paradox. In other words, the aims of NEP 2020 will be adequately achieved only through equalized corrects that properly help strengthening ability money, research foundation, and quality assurance means in a framework of maintained exertions toward inclusive approach.

### Future Work

Consequently, future research should adopt an expanded scope of investigation by conducting a time-series analysis of AISHE data to establish the long-term impact created by NEP 2020 regarding access and quality. Such comparative studies of states and different kinds of institutions bring to the fore how such policy outcomes play out across regions and governance structures. Detailed qualitative fieldwork by educators and students deepens the understanding of on-ground challenges related to the implementation of NEP reforms. The integration of metrics related to digital learning and employability in future datasets would present a more holistic view of educational transformation under NEP 2020.

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