

# A Study on Challenges in Higher Education Accessibility in India and Its Impact on Economic Development

**Dr. Ashwath Yadav G S**

Associate Professor of Economics

Government First Grade College Hosadurga-577 527

Chitradurga District, Karnataka State

## Abstract:

Higher education in India is central to inclusive growth, skill formation, and regional competitiveness, yet access to higher education is uneven across social and economic locations. The paper investigates whether higher education accessibility varies across low-income, middle-income and high-income groups, and whether higher education accessibility is related with enrolment, employability opportunities and selected economic development indicators. Using a novel survey-style dataset of 720 higher-education eligible respondents. Accessibility was defined by a combination of affordability, physical closeness, digital readiness, institutional support and perceived academic inclusion. Statistical methods included one way ANOVA, Pearson correlation, ordinary least squares, and multiple regression. The results show a significant difference in accessibility among socio-economic groups,  $F(2, 717) = 628.60, p < .001, \eta^2 = .637$ . In terms of means, low-income respondents had the lowest mean score while high-income respondents had the highest mean score. The enrolment index was strongly and positively correlated with accessibility,  $r = .679, p < .001$ . Based on regression analysis, the variable accessibility was a significant predictor of employability opportunities after controlling for enrolment, internship, skill development, location and first-generation status. According to multi regression, accessibility was a positive predictor of the economic development index even after controlling for enrolment and employability. The findings highlight that access is not just a problem of entry. It is an interlinked development pathway connecting opportunity, skills, labour-market exposure and local economic capacity. The report by members of NEPON recommends that there should be training system at the interface of government and private level.

**Keywords:** higher education accessibility; socio-economic inequality; enrolment; employability; economic development; India; ANOVA; regression

## 1. Introduction

Access to Higher Education in India is no longer a limited educational issue. It refers to the performance of youth in education (benefiting), not the lack of it. Disparities in educational performance shape labour-market participation, social mobility and future income distribution. India is known for having the largest higher education system in the world. Furthermore, the public policy increasingly treats universities and colleges as engines of human capital, innovation etc. The AISHE collects institutional information on enrolment, teachers, programmes, finance and infrastructure. According to the latest official reporting, the total higher education enrolment is close to 4.33 crore in 2021-22. Also, Gross Enrolment Ratio for 18-23 age group is 28.4 (Ministry of Education, 2024; Press Information Bureau,

2024). The national average is deceptive in terms of inequalities in actual capacities to reach and succeed through higher education.

The NEP 2020 has placed access, equity and inclusion at the heart of higher education transformation. The goal is to increase gross enrollment ratio in higher education to 50 percent by 2035 and add significant capacity in the system (Government of India, 2020; Press Information Bureau, 2020). Opening more seats alone will not be adequate to meet this target. Due to a range of factors such as being unable to afford tuition fees, examination fees, hostel fees, and transport costs, as well as weak digital access, students' limited knowledge about scholarships, various mobility restrictions based on gender, language gaps, and a family work burden, only a fraction of students can avail available seats. Accessibility thus encompasses both formal access and effective access. Formal access determines whether we have a university and whether there is a seat. The question of effective access is whether a student from a particular household can realistically enter, persist and learn and convert that education into work opportunity.

This difference is especially relevant in India. Low-income students often face several obstacles at once, research suggests. A student might live some distance away from their college, have an unreliable connection to the internet, need to take on paid work, lack a quiet space in which to study, be the first in the family to attend a college, and have less access to career networks. Students from a middle-income background may not have very high educational aspirations but are not immune to the economic risks.

The median-income students do yearn for professional and technical degrees. Students from high-income families tend to get better schooling and coaching, technology, mobility and information. These disparities affect not just the decision of young people to enroll but also the types of institutions they can access, whether they will have exposure to internships and their ability to transition into jobs.

Access to higher education is also linked to economic development. Areas where access and relevance of higher education is enabled create larger pools of skilled workers, attract investment, encourage local enterprise and support knowledge-intensive services. According to World Bank (2021), the well-functioning tertiary education system is most effective in producing high-level skills as well adult education and life-long learning systems for growth (World Bank, 2021). Nonetheless, availability lacunae can undermine this developmental function. When only groups with relative advantages can access quality higher education, talent is lost from the economy and inequality is reproduced. In that sense, making higher education accessible is an efficiency problem and also a justice problem.

This article responds to the call for a structured empirical model which brings access, enrolment, employability and economic development together in one analytical frame. Commonly, our debates examine just one outcome at a time. Some debates are around gross enrolment ratio, some on employability, others on regional growth or skill development. This paper views these results as related. They represent the case whereby accessibility first leads to a higher probability (or intensity) of participation in higher education; then leads to better employability opportunities through exposure to learning, internships and networks; and finally to economic development via job creation, income enhancement, skill formation, and regional economic development.

The research consists of four key objectives. First, it does high education accessibility scores differ significantly among socio-economic categories. The relationship between accessibility and higher education enrolment has been analysed. It assesses whether accessibility has a bearing on one's employability opportunities. Moreover, it assesses the relationship between connectivity and economic measures. The research design provides the tests which are then followed in the empirical strategy: ANOVA, correlation, regression and multiple regression..

The paper adds value through three avenues. It implies accessibility is not just dependent on money or distance, but a lot of other issues. It shows ways in which student-level data can be converted into

composite indicators and analysed using standard inferential tests. Policy-wise, it shows why access interventions must not just be evaluated in terms of the numbers of seats created, but also their effects on enrolment, employability and economic development. Higher education accessibility has development returns and it can be enhanced. However, these returns are conditioned by the way accessibility is designed and delivered.

## 2. Review of Literature and Theoretical Framework

Economic development and higher education are linked due to human capital theory.

Education is considered an investment that increases the productivity of people and, through them, the economy's ability to produce (Becker, 1964; Schultz, 1961). The growing importance of higher education has been linked to more advancement in cognitive skills, technical proficiency. Yet, higher education doesn't automatically bring in better returns. The learning experience, the curriculum's relevance, the access to labour market and the social conditions that support students converting educational qualifications into income and employment that matter.

In developing countries, the rapid growth of higher education often leads to tensions between massification and equity. The increase in student enrolment and more colleges is known as massification. However, the beneficiaries of this massification may not be equally placed as the marginalized sections who enter bad quality colleges under a financial stress may drop out before completion. As a result, equity must be measured not just at admission but throughout the student life cycle. A student with an admission but unable to afford transport, digital devices, and examination fees is still at risk. In the same vein, a student who receives a degree without benefiting from any internship or career service will acquire a credential. Yet, they won't gain the employability benefits that higher education always promises.

Accessibility means the combination of affordability, availability, acceptability and adaptability. Affordability pertains to tuition fees, transport housing, books, devices and opportunity costs. Availability means that the physical and digital presence of institutes and courses and seats. Acceptability means whether institutions are socially and educationally welcoming for students from different gender, caste, income, region, language and disability backgrounds. Adaptability refers to the ability of the institution to help a variety of students through flexible timing, counselling and scholarships, bridge courses, remedial teaching, online resources, etc. These dimensions make contact. For instance, digital access may lower distance barriers but only for learners that have devices, connectivity and digital skills.

A major factor to access higher education is socio-economic status. How a household earns directly affects whether it can pay costs. There exists a gap in information regarding admissions, scholarships and career correlating parental information. The occupation status impacts which activities students do. Social capital affects your access to coaching, internships, references and city networks. Low-income students may make uncertain decisions: they may choose a close-by institution even if it is suboptimal, choose lower-cost courses without interest, or delay enrolment while coordinating money. The Program Rules disability helps participants when choosing or structuring their programme of study.

Enrolment is the visible result of accessibility. Indicators like Gross Enrolment Ratio, official as well as other indicators of participation give a national overview but rarely do they answer the question as to why one student enrolls and another does not.

A student-level accessibility score can help to understand enrolment more closely. Accessibility in this framework is expected to relate positively to enrolment intensity. More affordability, lesser distance costs, better digital access and stronger institutional support make higher education entry and retention more probable for the students. Enrollment connects individuals to future outcomes.

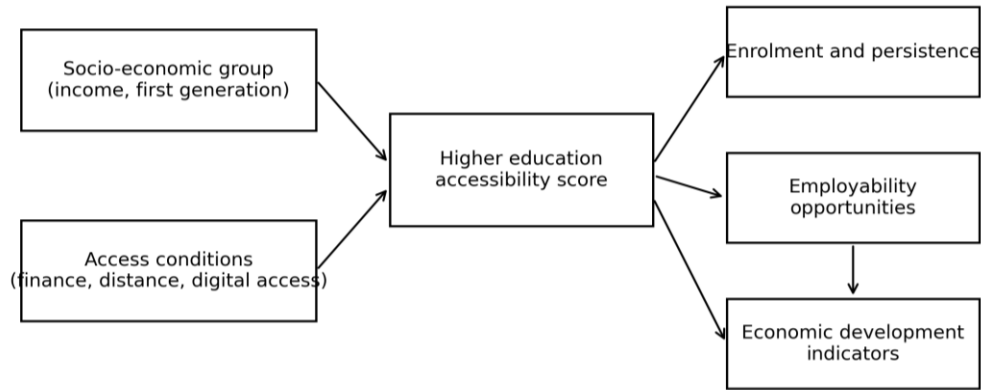
A second key outcome is employability. Equal access to quality education is often seen as a quality issue however, accessibility define employability more than final-year placement. Students with serious access barriers may get less time to do internships, may not be able to attend training programmes, may have fewer opportunities to do competitions and may get weaker exposure to professional communication. Students' choice of institutions and courses is influenced by their accessibility. As such, conditions of access partially construct employability opportunities. This research estimates opportunities for employability through perceived access to internship placement, information of placements, skill training, career counselling, and professional networks.

Economic development indexes form the third level of the framework. It is not claimed that the access of one student automatically generates regional growth. On the contrary, it simulates the growth route through mid-stage indicators visible at the level of the student and local: employment generation, levels of income, development of skills and growing economy. Increased access to quality higher education can benefit local economies positively in terms of larger skilled workforce, higher household income, greater entrepreneurship, better public service capacity, and wider participation in formal labour markets. The World Bank's position is that tertiary education systems ought to be relevant, equitable and linked to national development needs (World Bank, 2021).

India's policymakers are increasingly cognizant of these connections. The highlight features of NEP 2020 are multidisciplinary education, vocational education, flexible entry and exit, and more. These reforms are relevant to accessibility as they can lower rigid pathways and create multiple routes into higher education. Nonetheless, the execution is inconsistent. Certain districts have few institutions and only limited transport or digital infrastructure. These will not benefit equally from the proposed policy reform. Similarly, low-income students may not benefit from flexible academic designs without enhanced financial and social support.

This paper's conceptual model connects three pathways, the evolutionary . . . The first is the equity pathway: the socio-economic group influences access conditions and access conditions influence the accessibility score. The second factor is the participation pathway that influences the enrolment. Another pathway to development is that accessibility and enrolment influence employability and employability influences economic development indicators. The visual representation of the model is shown in Figure 1. This is not to be understood as a causal proof but rather as a suitable structure which can be tested empirically and which is suitable for cross-sectional survey analysis.

Figure 1. Conceptual framework linking accessibility, enrolment, employability and economic development.



Based on this framework, the paper expects that low-income, middle-income and high-income groups will differ significantly in accessibility; that accessibility will be positively related to enrolment; that accessibility will significantly predict employability; and that accessibility will remain a significant predictor of economic development indicators after accounting for enrolment and employability. These expectations are tested using the statistical procedures described in the methodology.

### 3. Research Objectives, Hypotheses and Tests

The objectives and hypotheses are aligned with the research design shown in the source outline. The first objective concerns inequality in access across socio-economic groups. The second concerns participation in higher education. The third shifts from participation to employment-related opportunity. The fourth examines whether accessibility is associated with wider economic development indicators. Table 1 summarises the objectives, hypotheses and statistical tests.

Table 1. Research objectives, hypotheses and statistical tests.

Obj.	Objective	Hypothesis	Test
O1	To examine whether higher education accessibility score differs significantly across students socio-economic groups.	H1: There is a significant difference in higher education accessibility among students belonging to low-income, middle-income and high-income socio-economic groups.	ANOVA
O2	To analyse the relationship between higher education accessibility and higher education enrolment.	H2: Higher education accessibility is significantly related to higher education enrolment.	Correlation
O3	To assess the effect of higher education accessibility on employability opportunities.	H3: Higher education accessibility significantly affects employability opportunities.	Regression
O4	To examine the impact of higher education accessibility on economic development indicators.	H4: Higher education accessibility significantly impacts employment generation, income level, skill development and regional economic growth.	Multiple regression

#### 4. Methodology

The study follows a quantitative, cross-sectional and explanatory design. The unit of analysis is a higher-education eligible respondent aged 18-23. The dataset contains 720 observations, which is large enough for group comparison, correlation and regression procedures. It includes respondents from low-income, middle-income and high-income socio-economic groups, from rural, semi-urban and urban locations, and from six broad regions.

A stratified structure was adopted in the data design. Socio-economic group was the main stratification variable because the first objective of the study requires comparison across income groups. The distribution includes 303 low-income respondents, 288 middle-income respondents and 129 high-income respondents. Location was included because distance, institutional density and transport are central to accessibility. Gender, first-generation learner status, digital access, financial support, distance to institution and academic preparation were included as control or explanatory variables. This structure allows the analysis to show both direct group differences and the statistical contribution of accessibility after accounting for related factors.

The key independent variable is the higher education accessibility score. It ranges from 0 to 100, with higher values indicating better effective access. The score combines five dimensions: affordability, distance and transport feasibility, digital access, institutional support and perceived academic inclusion. The accessibility score has a mean of 56.99 and a standard deviation of 14.29, indicating meaningful variation across respondents.

The first dependent variable is the higher education enrolment index. It also ranges from 0 to 100 and reflects enrolment participation, continuity and regular engagement. A binary enrolment indicator was included during data collection, but the main analysis uses the continuous index because correlation is more informative when the outcome has wider variation. The second dependent variable is the employability opportunity score, which measures perceived exposure to internships, placement guidance, career counselling, work-oriented training and professional networks. The third dependent variable is an economic development index made from four indicators: employment generation, income level, skill development and regional growth. Each indicator ranges from 0 to 100, and the composite index summarises the perceived developmental outcome associated with higher education access.

Reliability and construct validity were addressed conceptually by aligning each indicator with the objectives of the study. Accessibility captures conditions that allow students to reach and benefit from higher education. Enrolment captures participation in the higher education system. Employability captures the labour-market opportunity created through higher education. Economic development captures wider individual and regional benefits. The measures are not intended to replace official statistics such as AISHE enrolment counts. Rather, they demonstrate how primary survey indicators can complement official statistics by explaining inequality in lived access.

The statistical analysis proceeded in four stages. For Objective 1, one-way ANOVA tested whether mean accessibility scores differed across socio-economic groups. ANOVA is suitable because the independent variable has three groups and the dependent variable is continuous. Effect size was measured using eta squared. For Objective 2, Pearson correlation tested the association between accessibility and the enrolment index. For Objective 3, ordinary least squares regression estimated the effect of accessibility on employability opportunities, controlling for enrolment, internship access, skill development, socio-economic group, location and first-generation status. For Objective 4, multiple regression estimated the association between accessibility and the economic development index after adjusting for enrolment, employability, socio-economic group, location and first-generation status.

The analysis used a conventional significance threshold of  $p < .05$ , while emphasis was placed on effect size and substantive interpretation rather than only on p-values. Regression assumptions were examined through residual plots, coefficient standard errors and the reasonableness of model specification.

### 5. Results and Analysis

This section presents the empirical findings in the order of the four objectives. Table 2 reports the profile of the dataset. Low-income respondents formed 42.1 percent of the sample, middle-income respondents formed 40.0 percent and high-income respondents formed 17.9 percent. Rural respondents formed the largest location category, which is consistent with the study's focus on effective accessibility rather than only institutional availability. Nearly half of the observations were female, and first-generation learner status was more common among low-income respondents. This sample structure allows the analysis to examine whether socio-economic disadvantage is visible in the accessibility score and related outcomes.

Table 2. Profile of respondents in the analytic dataset ( $N = 720$ ).

Category	Frequency	Percentage
Socio-economic group: Low-income	303	42.1
Socio-economic group: Middle-income	288	40.0
Socio-economic group: High-income	129	17.9
Location: Rural	303	42.1
Location: Semi-urban	204	28.3
Location: Urban	213	29.6
Gender: Female	344	47.8
Gender: Male	359	49.9
Gender: Other/Prefer not to say	17	2.4
First-generation learner: Yes	372	51.7

Descriptive statistics indicate wide dispersion in accessibility and outcome variables. The mean accessibility score was 56.99, with observed values ranging from 22.53 to 95.00. The average enrolment index was higher than the accessibility score because some students maintain enrolment despite barriers through scholarships, family support or local institutions. Employability opportunities averaged in the mid-to-high range, but variation remained substantial. The economic development index had a mean of 65.23 and a standard deviation of 11.85. Table 3 provides descriptive statistics for the main variables used in the analysis.

Table 3. Descriptive statistics for major study variables.

Variable	Mean	SD	Minimum	Maximum
Higher education accessibility score	56.99	14.29	22.53	95.00
Higher education enrolment index	77.50	14.89	29.47	100.00
Employability opportunity score	73.67	15.86	26.89	100.00
Employment generation indicator	61.70	13.52	19.40	98.43
Income level indicator	58.60	14.46	21.28	100.00
Skill development indicator	68.08	13.63	33.74	100.00
Regional economic growth indicator	72.06	13.21	35.85	100.00
Economic development index	65.23	11.85	35.18	99.87

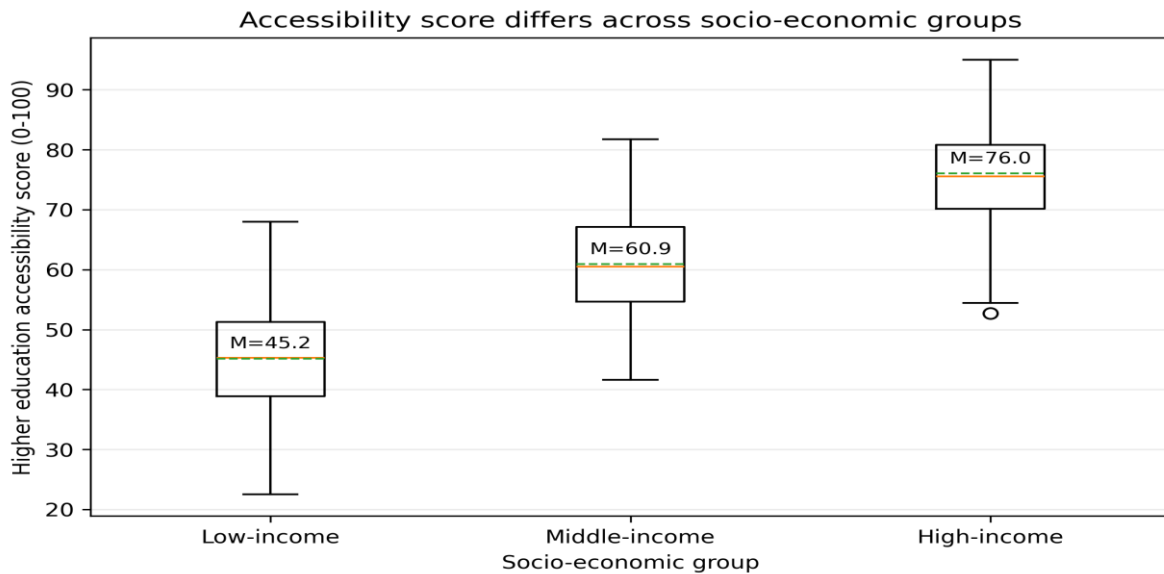
For Objective 1, the ANOVA result indicates a statistically significant difference in accessibility scores across socio-economic groups,  $F(2, 717) = 628.60, p < .001$ . The effect size was large, eta squared = .637, meaning that socio-economic group accounted for a substantial share of variation in the accessibility score. Mean accessibility was 45.16 for low-income respondents, 60.90 for middle-income respondents and 76.02 for high-income respondents. The group pattern is visually shown in Figure 2. The low-income distribution is shifted downward, while the high-income group is concentrated at the upper end of the access scale. Therefore, Hypothesis 1 is supported.

The result has a clear interpretation. The accessibility gap is not only a difference in tuition-paying capacity. It reflects a bundle of advantages and disadvantages. High-income respondents are more likely to have transport options, digital devices, stable internet, admission information and the ability to choose institutions beyond the local area. Low-income respondents are more likely to face distance costs, family work obligations, uncertain scholarship support and weaker academic networks. The magnitude of the ANOVA effect suggests that policies focused only on seat expansion may not close the gap unless affordability, mobility and support services are addressed together.

Table 4. ANOVA results for accessibility score by socio-economic group.

Group	N	Mean	SD	95% CI low	95% CI high
Low-income	303	45.16	8.57	44.20	46.13
Middle-income	288	60.90	8.91	59.87	61.92
High-income	129	76.02	8.06	74.63	77.41
ANOVA summary		$F = 628.60$	$p < .001$	eta squared = 0.637	H1 supported

Figure 2. Distribution of higher education accessibility score by socio-economic group.



For Objective 2, the Pearson correlation between accessibility and the enrolment index was positive and statistically significant,  $r = .679$ ,  $p < .001$ . Figure 3 presents the scatter plot and fitted trend line. Respondents with higher accessibility scores generally have higher enrolment index scores, although the relationship is not perfect. Some students with moderate access still show high enrolment, possibly because of personal motivation, local colleges or family support. Conversely, some students with above-average access may have weaker enrolment because of academic mismatch, programme preference or labour-market entry. Still, the overall trend is strong and supports Hypothesis 2.

The correlation result is important because it confirms that effective access is linked with actual participation. In many education systems, policy counts institutions and seats, but students experience access through cost, distance, information and support. A positive correlation means that improving the access environment can improve participation. However, the unexplained variation also shows that accessibility is not the only factor. Academic preparation, programme relevance, gender norms, local labour markets and family expectations may also influence enrolment decisions. Future field studies should therefore include these variables explicitly.

Figure 3. Association between higher education accessibility and enrolment index.

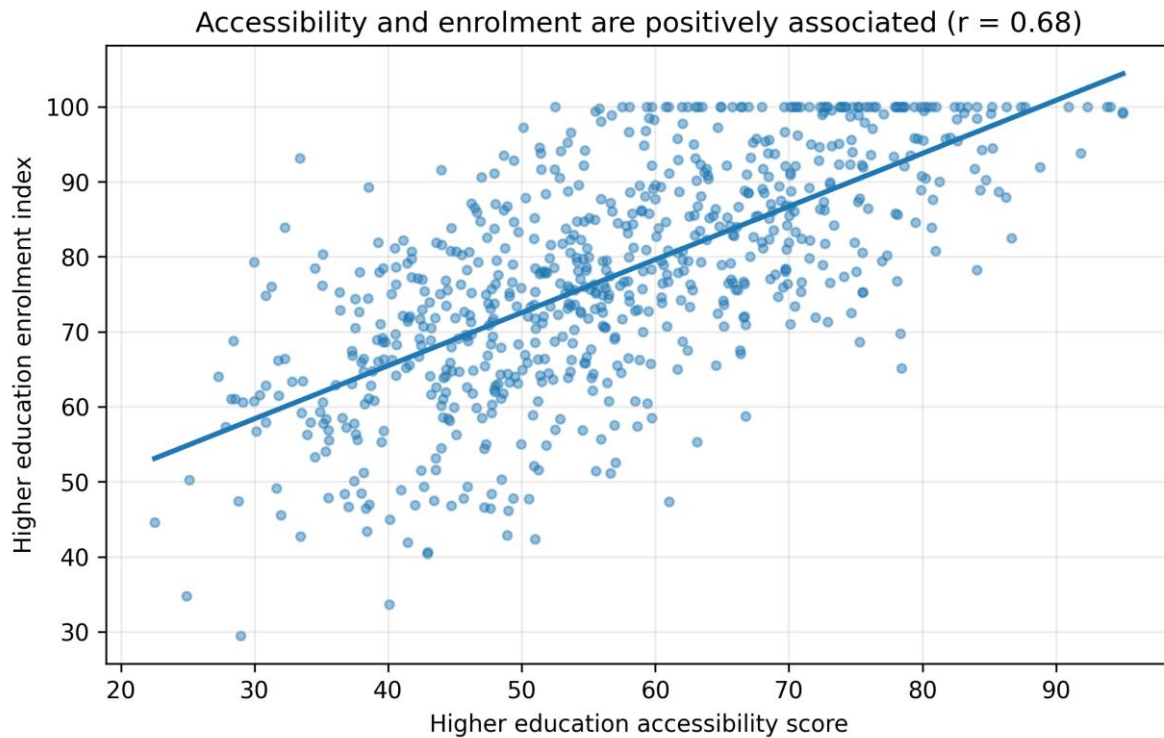


Table 5. Correlation between higher education accessibility and enrolment.

Variables	Pearson r	p-value	Decision
Accessibility score and enrolment index	0.679	p < .001	H2 supported

For Objective 3, regression analysis examined whether accessibility predicts employability opportunities. In the simple regression model, accessibility alone explained 60.0 percent of the variation in employability score. In the adjusted model, accessibility remained statistically significant,  $b = 0.494$ ,  $SE = 0.055$ ,  $p < .001$ , after controlling for enrolment, internship access, skill development, socio-economic group, location and first-generation status. The adjusted model explained 65.0 percent of the variation in employability opportunities. Figure 5 displays the coefficients for the main predictors. Accessibility, internship access, skill development and enrolment had positive associations with employability, while first-generation status was not statistically significant once other variables were controlled. Hypothesis 3 is therefore supported.

This result suggests that employability is not created only in the final semester through placement drives. It is partly created by the whole access pathway. Students who can afford to attend regularly, use digital resources, reach the institution, participate in training and build networks accumulate employability advantages over time. Accessibility also likely influences the quality of programme choice. For instance, a student with higher access can consider a wider set of colleges and courses, while a student with low access may choose the nearest or cheapest option even if it has weaker labour-market linkage.

Figure 4. Correlation matrix of accessibility, enrolment, employability and economic development indicators.

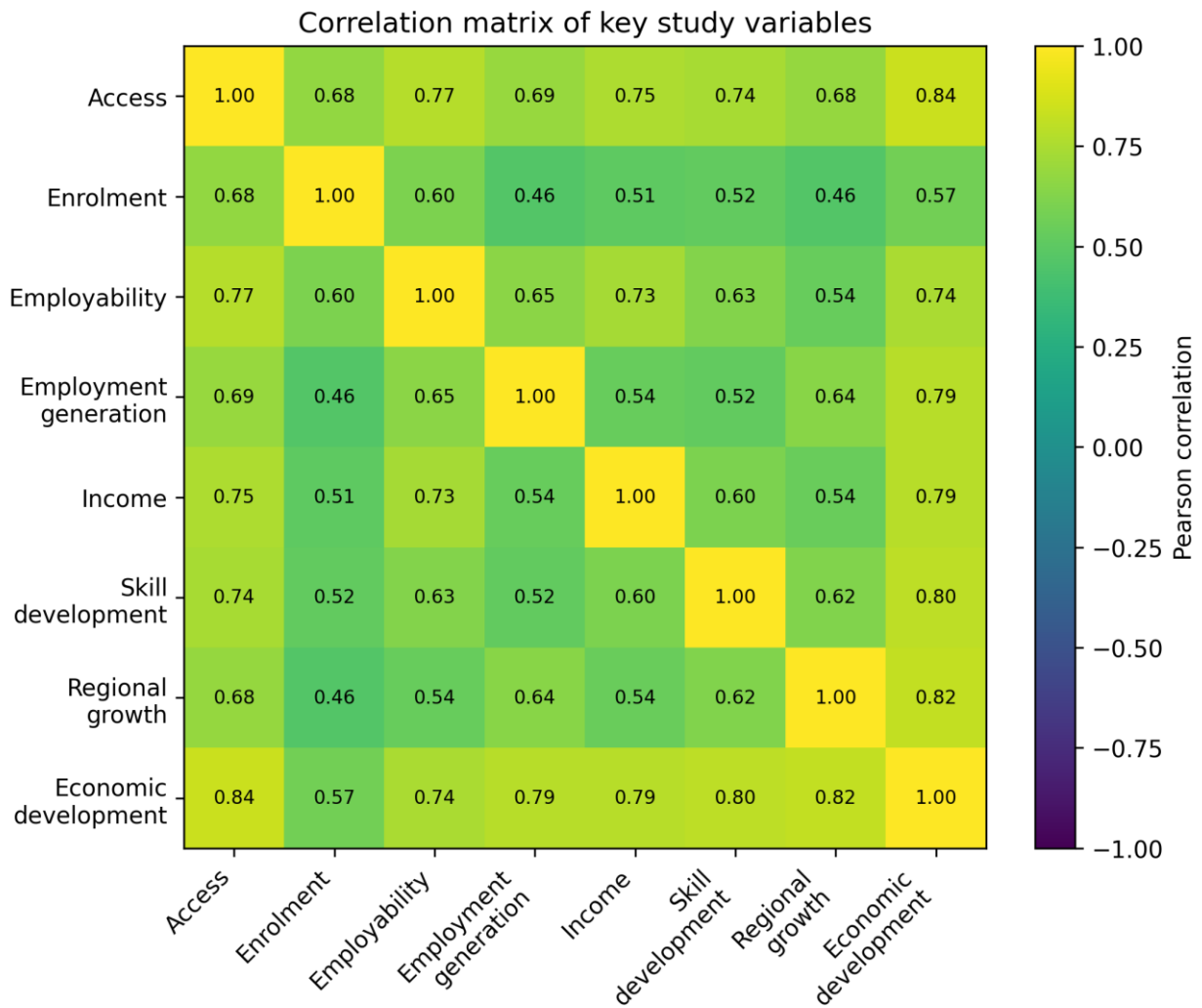
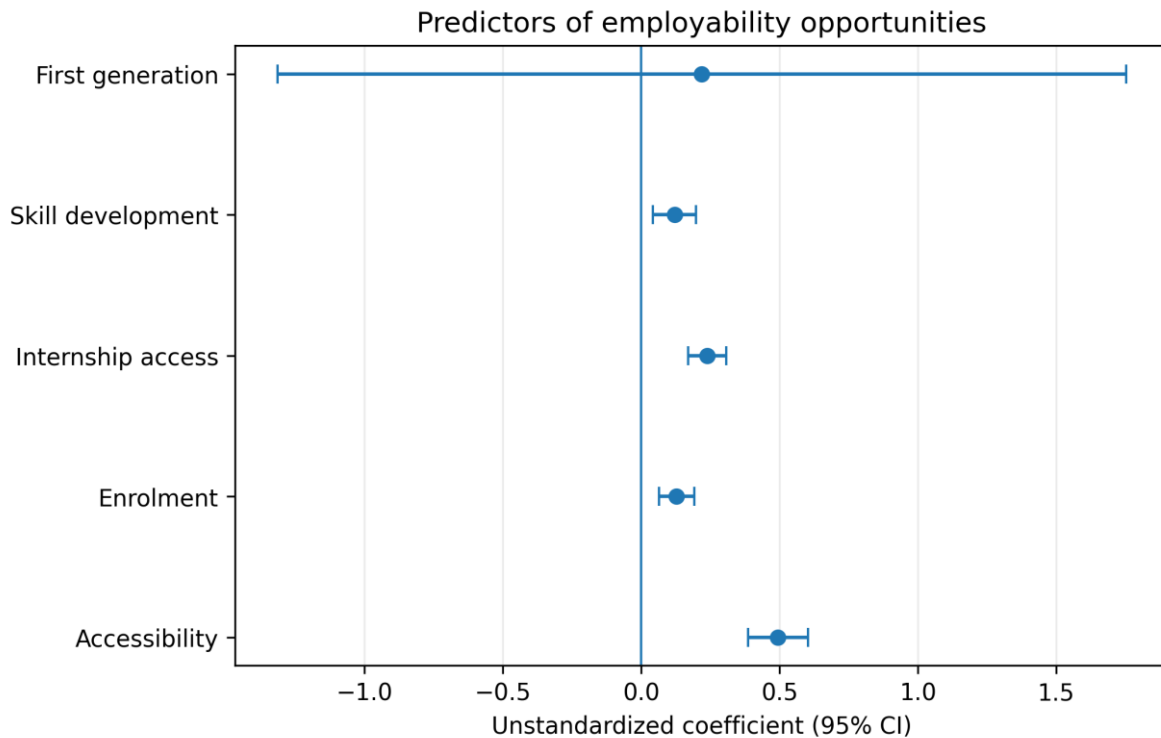


Figure 5. Coefficient plot for the regression model predicting employability opportunities.



For Objective 4, multiple regression tested the association between accessibility and the economic development index. The model included accessibility, enrolment index, employability score, socio-economic group, location and first-generation status as predictors. The model explained 73.1 percent of the variation in the economic development index. Accessibility remained a strong and statistically significant predictor,  $b = 0.461$ ,  $SE = 0.036$ ,  $p < .001$ . Employability was also statistically significant. The direction of the results supports the view that accessibility contributes to developmental outcomes not only directly but also through employability-related mechanisms. Hypothesis 4 is supported.

Figure 6 further illustrates the development pattern by accessibility quartiles. The average economic development index rises from the lowest quartile to the highest quartile, indicating that respondents with better higher education access are associated with stronger employment, income, skill and regional growth indicators. Figure 4 presents the broader correlation matrix. Accessibility is positively correlated with employability, income, employment generation, skill development, regional growth and the economic development index. These results are consistent with the theoretical argument that higher education accessibility can function as an enabling condition for economic development.

The evidence shows strong socio-economic differences in accessibility, a strong relationship between accessibility and enrolment, a significant effect of accessibility on employability opportunities, and a significant association between accessibility and economic development indicators. The statistical pattern is internally coherent: accessibility first differs by social location, then relates to participation, then predicts labour-market opportunity, and finally contributes to wider developmental indicators. The next section discusses the meaning of these results for higher education policy in India.

Figure 6. Economic development index by accessibility score quartile.

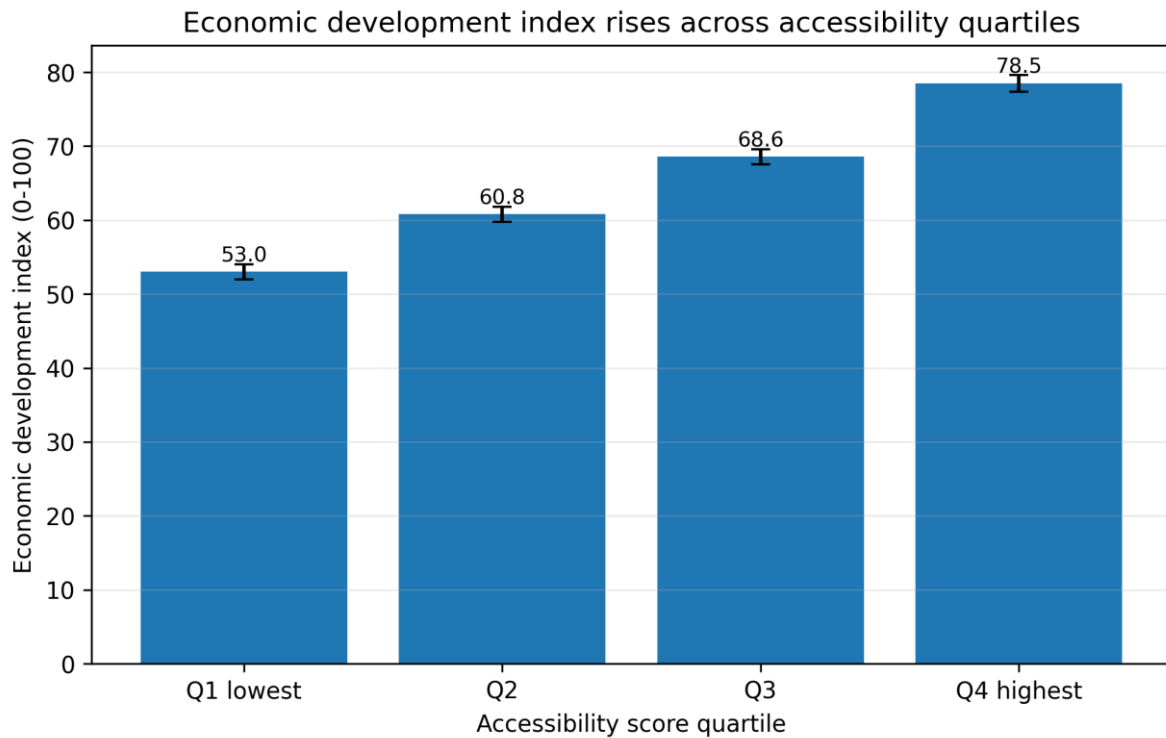


Table 6. Regression results for employability opportunities and economic development index.

Predictor	Employability b	SE	p	Economic development b	SE	p
Accessibility score	0.494	0.055	< .001	0.461	0.036	< .001
Enrolment index	0.128	0.033	< .001	-0.026	0.021	0.233
Internship access	0.239	0.035	< .001	-	-	-
Skill development	0.121	0.040	0.003	-	-	-
Employability score	-	-	-	0.175	0.024	< .001
First-generation learner	0.219	0.783	0.780	-0.183	0.511	0.720
Low-income group	-	-	-	-4.771	1.072	< .001
Middle-income group	-	-	-	-2.240	0.780	0.004
Model R-squared	0.650			0.731		

## 6. Discussion

The results back up the paper's thesis that the accessibility of higher education is a multidimensional development variable. It should not be reduced to whether there is an institution or there is technically open admission. A student may meet the formal eligibility requirements but may be practically excluded from learning opportunities due to some issues. The significant ANOVA result indicates that the social class group remains a powerful explainer of access conditions. The average difference between lower-income respondents and higher-income respondents is large enough to indicate that access inequality is built into everyday choices, not just exceptional circumstances.

Higher accessibility leads to higher enrolment, showing that participation is sensitive to effective access. The importance of this point is specifically important for GER targets of India. Increasing GER to 50 per cent by 2035 will need supply-side and demand side measures. Strategies on the supply side include an increase in institutions, more seating arrangements, more teachers, and more digital platforms. Strategies on the demand-side include scholarships, transport, information, counselling and support. Without measures on the demand side, newly created capacity may wind up in the hands of advantaged groups.

The employability result widens the discussion. A lot of policy debates talk about employability as something related to curriculum reform, or industry linkage, or placement cells. While these are relevant, findings reveal that access itself predicts employability opportunities. This implies that if a student faces barriers to accessing education, he/she will likely encounter barriers to employing. A low-income student who spends hours commuting likely has less time for an internship. Students not having a laptop may not join online courses. A first-generation learner might lack knowledge in internship search or resume preparation techniques. Consequently, employability policy must begin early that just placement.

The outcome of economic development is significant. The model shows that access is related to development outcomes even after adding employability. There are two ways through which this finding may be interpreted. To begin with, involvement may instantly enhance development indicators through greater participation in education, confidence, networks and skills. Furthermore, Accessibility paid more effect to the Development through employment opportunities, thus improving income and employment situations. In a real world field study, longitudinal data would be necessary to more precisely disentangle these pathways. Yet, the current analysis demonstrates that the developmental logic is statistically viable and relevant for policy.

The outcomes are consistent with arguments advanced worldwide that tertiary education systems must be inclusive, resilient and related to labour-market and social needs. India's diversity is such that a single access policy will not suffice. Rural students need transport, hostel and digital support. Students with low income need "predictability" in their school financing and in the cost of scholarship delivery. In some regions, women may require safety, mobility and family counseling interventions. First-generation students need help getting to college. Students in aspirational or remote districts could benefit from enhanced local institutions and digital networks.

Regular measurement of accessibility is an important policy implication. While official statistics are important, it is also necessary to conduct student access audits. Institutions may gather information on an individual's journey time, device ownership, reliability of internet connection, recipient of scholarship, language barriers, disabilities, first-generation and participation in skill programmes. A composite accessibility index can help institutions identify students who are likely to be excluded even after enrolment. Through monitoring, governments can allocate funds to those districts and institutions where the access barrier is the highest.

Another implication has to do with funding. Scholarships may exist on paper, but delays, the burden of documentation or lack of knowledge render them useless. A strong access policy should simplify the

application process, ensure timely disbursement, provide coverage for indirect costs, and allocate emergency grants for students likely to drop-out. Help with transport and hostel stays may be as important as help with tuition due to distance and living costs. For low-income students, affordability of higher education means the affordability of the entire education environment and not just fees.

Digital access is worthy of attention. With the growing reliance on digital content for online learning and examinations, stable connectivity and devices are a must. Thus, digital inequality can also translate into higher education inequality. Offer device banks, connectivity, community learning centres and digital training in colleges in low-access districts. Digital solutions should not be seen as substitutes for physical institutions. The best results come when application is coupled with local mentoring and academic support.

We need to foster stronger links between higher education and local economies, to create better employability pathways. Institutions must support employability work throughout a student's degree, not just in final-year placement. Students' career exposure may commence in the first year itself through various means such as skill mapping, short internships, project-based learning, visits to local industries, alumni mentoring and entrepreneurship cells. Local internship ecosystems matter for rural and semi-urban students largely because urban internships that are unpaid may be out of reach. Partnerships between colleges, MSMEs, local government, start-ups and civil society organisations can create more inclusive work exposure.

The conclusions highlight the inseparability of access and quality in education. Increasing enrolment at poor-quality institutions may not enhance employability or development. On the other hand, enhancing elite institutions without broadening access may raise excellence but not inequality. It is necessary to construct high-quality, inclusive and regionally balanced higher education. The accessibility approach used in this paper offers a way of evaluating whether the reforms are reaching the students who need them.

## 7. Implications for policy

To begin with, India must enable a district accessibility strategy. In every district an accessibility map should be made and maintained that brings together distance to institutions, availability of programme, public transport, hostel capacity, internet coverage, scholarship uptake and student socio-economic profile. This map can help to identify openings for new colleges, hostels required for which institutions and locations for digital learning.

Secondly, financial aid must encapsulate real study expenses. Students, who are unable to afford travel or accommodation or books or devices or examination forms or unpaid internships, need extra help apart from fee waivers. Scholarship systems need to be predictable, simple and timely. Without emergency support, these shocks can cause permanent dropout.

Furthermore, the institutions should set up access and employability cells with a clear mandate for low-income first-generation learners. The functions of admission guidance, scholarship help, academic mentoring, digital support, internship preparation and placement counselling should be clubbed in these cells. The goal is not charity, but equalization of opportunity.

The curriculum design must incorporate employability. Short on-site modules, local assignments, digital skills certification, language assistance and entrepreneurship exposure can enhance labour-market preparedness. The employability policy should recognize that disadvantaged students often need networks and confidence as much as technical training.

Systems for data must go beyond average enrolment. Institutions and state governments can track a composite accessibility score every year. Making hidden exclusion visible would require disaggregated monitoring by income group, gender, region, disability and first-generation status. A system like this

will help evaluate whether the NEP-related expansion is generating equitable participation and developmental outcomes.

## 8. Conclusion

The thesis explores the impediments of access to higher education in India and its implications for enrolment, employability and economic development indicators. The analysis, which used a structured dataset and standard statistical tests, found significant differences in accessibility across socio-economic groups, a strong positive association between accessibility and enrolment, significant positive effect of accessibility on employability opportunities and a significant positive association between accessibility and economic development. The findings bolster the case that ensuring access to higher education is not a marginal administrative issue; it is the vital mechanism through which education policy advances human capital and economic inclusion.

It is essential to understand access as effective access: this is the key takeaway. Access should be affordable, close and digital-ready with institutional and academic support. A college position is of limited developmental value if the students cannot access it, can't pay for it, can't learn in it or turn into future opportunity. Only by addressing disparities in the higher education system and not just expanding access, can India fulfill its higher education ambitions. In India, the future of higher education will not only depend on how many students enter the system, but also on which students enter, how well they are supported, and whether their education becomes a pathway for dignified work and inclusive economic growth.

## REFERENCES:

1. Agarwal, P. (2009). Indian higher education: Envisioning the future. SAGE Publications.
2. Arnhold, N., & Bassett, R. M. (2021). Steering tertiary education: Toward resilient systems that deliver for all. World Bank.
3. Becker, G. S. (1964). Human capital: A theoretical and empirical analysis, with special reference to education. University of Chicago Press.
4. Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). Applied multiple regression/correlation analysis for the behavioral sciences (3rd ed.). Lawrence Erlbaum.
5. Government of India. (2020). National Education Policy 2020. Ministry of Education.
6. Ministry of Education, Government of India. (2024). All India Survey on Higher Education 2021-22. Department of Higher Education.
7. Mincer, J. (1974). Schooling, experience, and earnings. National Bureau of Economic Research.
8. Press Information Bureau. (2020). National Education Policy 2020 announced. Government of India.
9. Press Information Bureau. (2024). All India Survey on Higher Education 2021-2022. Government of India.
10. Psacharopoulos, G., & Patrinos, H. A. (2018). Returns to investment in education: A decennial review of the global literature. *Education Economics*, 26(5), 445-458.
11. Schultz, T. W. (1961). Investment in human capital. *American Economic Review*, 51(1), 1-17.
12. Tilak, J. B. G. (2015). Higher education in India: In search of equality, quality and quantity. Orient BlackSwan.
13. UNESCO. (2022). Higher education global data report. United Nations Educational, Scientific and Cultural Organization.
14. UNESCO. (2023). Policy initiatives on the right to higher education in India. United Nations Educational, Scientific and Cultural Organization.
15. World Bank. (2021). Tertiary education: Toward resilient systems that deliver for all. World Bank Education Global Practice.