INCOME INEQUALITY AND EDUCATION ACCESS : A COMPARATIVE STUDY OF URBAN AND RURAL INDIA FROM 2020-2025

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ABSTRACT

The paper represents the dynamic study about inequality in India with its serious implications on the natives of our country. In this paper, by considering alternative survey sources and data collection methods, we begin by developing a measurable cum outcome based approach, which allows us to study the income dynamics of our country over the past 5 years, we observed, studies that are examining education,inequality, and growth across multiple countries. Trends of income inequalities , by a more formal examination of inequality can also be taken through the decomposition of the Gini coefficient, which measures inequality in household income nad consumption.The (Hces 2023-24, n.d.) showed an overall Gini index of consumption expenditure of 0.36, with a higher Gini of 0.39 for urban India as compared to a Gini of 0.30 for the rural area. We emphasised that the quality of economic data in India is notably poor and has seen a constant and a significant decline overall. The Annual Status of Education Reports (ASER) data, reported for the years 2020-2024, also reinforces these observations as it offers information about participation and indications of qualitative differences in learning outcome.

Key words: India , income inequality, education , wealth share

INTRODUCTION

Income inequality has long been recognized as one of the major reasons for differences in access to education, especially in developing countries like India, where the rural–urban divide is a magnifier of structural inequalities. Education is typically viewed through the lens of Human Capital Theory, which emphasizes investing in knowledge and skills as a means of greater productivity, higher income, and lasting economic output (Becker, 1983); (Investment in Human Capital, n.d.). Households with wealth, for example, are more likely to spend money on their children's education, leading to greater upward mobility, and thus continuing cycles of privilege. In contrast, households living in poverty have a reduced ability to invest in education, thereby continuing and extending intergenerational disadvantage.

While Human Capital Theory emphasizes the instrumental role of education as a benefit to the economy, Amartya Sen's Capability Approach offers a broader, normative framework for understanding educational inequality. As (Dréze & Sen, 1996) contended, education should not be seen purely in terms of labor market returns; instead, it should be considered a fundamental capability that expands a person's freedom to live a life that they have reason to value. From this perspective, it is possible to appreciate the multidimensional restraints posed by income inequality: limited access to quality schooling, limited access to the digital technologies that make potential learning activities possible, and limited access to supportive family, peer, educational, and community settings. Educational inequality is not simply a representation of household income, but a representation of restricted agency and limited opportunities for human development.

Nonetheless, India's experience demonstrates that income inequality negates these benefits. The data shows gradual progress in both enrollment and gender balance, but access to quality education continues to be starkly unequal. While income inequality is related to urban–rural divides, digital access, and socio-economic inequality, the biggest intersectional disparities in access to education are in urban areas and between rural and urban areas. Urban households have more disposable income to spend on education, yet experience intra-urban inequality. Rural households are intrinsically disadvantaged in terms of access to education due to chronic low income, poor infrastructure, and limited access to technology. These inequalities expose the nuanced and intersectional effects of economic inequality, demonstrating that economic inequality does not affect all groups equally. However, rural children appear to have higher barriers to educational attainment in particular.

In light of the preceding, the current research explores the questions: How does income inequality affect educational access in rural and urban India? More specifically, are rural students likely to be excluded from educational opportunities at a higher rate than urban students as a result of income differences? These questions are important to understanding how structural differences in income lead to differential educational pathways and how differences in income become prolonged structures of inequality for future generations.

Using theoretical underpinnings from Human Capital Theory and the Capability Approach, we build on the hypothesis that greater income inequality will further educational exclusion in rural areas than urban areas. We will leverage national datasets to explain how income differences impact educational access and how layering of structural issues exacerbate educational inequalities.

LITERATURE REVIEW

Income inequality and education are closely linked, this relationship has been extensively studied across different contexts. For example, in India, the rural–urban divide adds complexity, as income disparities lead to significant differences in educational access, quality, and outcomes. Studies have indicated that although education is a significant driver of upward mobility, it is income inequality which determines who benefits most from educational opportunities. This dynamic creates a self-perpetuating cycle where wealthier households can invest more in their children's education, while poorer households often struggle to access even basic schooling (Olupona, 2018).

India's situation mirrors global findings. While expanding access to schooling is associated with lower inequality by raising skill levels across a broader population (Patowary, 2020), an unequal distribution of educational resources often reinforces class divisions. Research has revealed that income inequality often limits educational access for low-income groups, undermining education's potential to level opportunities (Checchi, n.d.; Economic Growth and Income Inequality, n.d.). The structural divide in India highlights that urban households with more disposable income and better access to quality schools, are more likely to support continuous and higher education for their children. Contrary to rural families who face barriers such as poor infrastructure, limited school choice, and the need for children to contribute to household income (Evolution of Income Inequality in India Since Independence: Results from India's Household Income Surveys, n.d.); (Keller, 2010).

Globally, scholars have used large-scale econometric analysis to understand the direction of causality between education and inequality. Studies suggest that higher average years of schooling can reduce inequality, though the effects are stronger when education is more uniformly distributed across the population (Rehme, 2002). In India, uneven distribution is evident in the differences between private and public schools, as well as in gendered access to education, where rural girls from low-income households often face multiple barriers (Income Inequality and Education Revisited: Persistence, Endogeneity, and Heterogeneity, n.d.; Rahman et al., 2024). While income growth has expanded educational access in urban centers, the benefits have been uneven, with elite institutions disproportionately serving the upper-income groups. This aligns with research that shows how in less developed countries, tertiary education can actually increase inequality since it is disproportionately accessed by wealthier students (Cheema et al., 2023; Income Growth, Inequality and Preference for Education Investment: A Note, n.d.).

Historical evidence strenghten the importance of reducing educational inequality as an antecedent to narrowing income inequality. In Africa reductions in educational inequality were linked to significant decreases in income inequality, even where average educational levels were relatively low (Leone & Cascio, 2020). Applying this insight to India suggests that policies which focus solely on expanding higher education without addressing disparities in access at primary and secondary levels may aggravate than reduce inequality. Studies have, in fact, demonstrated that public expenditure per student in primary education has the greatest equalizing effect, notably in less developed countries (Income Growth, Inequality and Preference for Education Investment: A Note, n.d.).

Several papers highlight the dual role of social protection systems in shaping the relationship between education and inequality. For instance, unemployment benefits or welfare schemes can relax borrowing constraints, enabling families to invest more in education, yet they can also reduce incentives to pursue higher educational attainment by providing a safety net ((Urean, n.d.). In India, schemes like mid-day meals and scholarships for disadvantaged groups have been showing increase in school attendance and fall in dropout rates, especially in rural areas (Hui, n.d.). Although persistent issues such as teacher absenteeism, inadequate infrastructure, and lack of monitoring reduce the potential of such programs.

The digital divide is another vital aspect that has presented a significant challenge to equality in education. Studies during the COVID-19 pandemic highlighted how rural households with limited internet connectivity and fewer digital devices struggled disproportionately with online education(Hendel et al., n.d.; Rillaers, 2001) . In urban centres, even though access was better, the quality of online didactics varied and low-income students faced challenges in maintaining continuity of learning .These results highlight how the disparity in income has implications for unequal digital access, and exacerbates differences that already exist in the Indian education system. The evidence also shows that students in rural areas sometimes turned to part-time jobs to purchase devices, which further deviated them from education(Rillaers, 2001). Such examples exemplify the ways in which inequality in economic resources manifests into educational disadvantages, with long-term implications for mobility.The role of education in reducing inequality is also shaped by demographic and household factors. Researchers in Bangladesh showed that each additional year of education for household members increases household income significantly, but the effects differ between drastically urban and rural households, with urban households consistently earning more (Keller, 2010). Similar patterns can be observed in India, where urban households with more educated members secure better-paying jobs, while rural households remain trapped in agricultural or informal labour with limited returns to education(van Leeuwen et al., n.d.) .Additionally, larger households may have more would-be earners, but often suffer from resource dilution, lowering the per capita investment in education. This suggests the role that education plays in interacting with larger socio-economic structures, supporting the argument for policies that account for household size, gender and locale.

Inequality is also sustained by structural and institutional factors that cannot be addressed through education alone.Studies examining education, inequality, and growth across countries emphasize that while more skilled labour forces are associated with lower inequality and higher growth, the causal pathways remain complex and subject to historical and institutional variations (“Digital Divide in Education during COVID-19 Pandemic,” 2021; Romero et al., 2025). In India, the liberalization era widened income disparities, and while government programs attempted to address inequities through targeted welfare and educational subsidies, the long-term effects remain mixed . The reliability of data also poses a challenge, as household surveys often underreport informal sector incomes, which dominate rural employment, thereby masking the true extent of inequality(Hui, n.d.). This complicates efforts to design policies that can effectively balance growth with equity.

Higher education often perceived as the pathway to equal opportunity, presents a more complicated picture. Evidence suggests that in the early phases of higher education expansion, inequality tends to increase because only a small share of the population which is usually wealthier households can afford to access (Cheema et al., 2023) .With the passage of time, when access to higher education becomes more widespread, the effect may work in reverse, closing income gaps. But here in India, the capped nature of the private college experience and limited seats in good quality state institutions guarantees accessible tertiary education is still mostly skewed towards urban elites. This trend mirrors findings in less developed countries more broadly, where subsidies or expansion of higher education can disproportionately benefit the better-off and inadvertently exacerbate inequality (Cheema et al., 2023; Income Growth, Inequality and Preference for Education Investment: A Note, n.d.).

At the same time, studies highlight that targeted educational policies can mitigate inequality if deputed carefully. Evidence from cross-country analysis shows that expenditure per student in primary and secondary education tends to reduce inequality more effectively than general increases in education spending (Cheema et al., 2023). India's experience with schemes such as the Sarva Shiksha Abhiyan and the Right to Education Act shows the potential of such measures, but problems of implementation continue to limit their impact. In many rural schools, even with increased funding, outcomes remain poor due to governance challenges, corruption, and weak accountability systems.(Checchi, n.d.; Income Inequality and Education Revisited: Persistence, Endogeneity, and Heterogeneity, n.d.)

Another strand of literature emphasizes the persistence and intergenerational transmission of inequality. Families with higher incomes can invest more not only in formal education but also in supplementary resources such as tutoring, extracurricular activities, and better nutrition, all of which influence educational outcomes (Olupona, 2018; Sağlam, n.d.). This creates a cycle in which advantages spend time accumulating, leading to sustained and lasting inequalities between households in rich and poor situations. Breaking this cycle would require sustained interventions across generations, such as policies providing more access to early childhood education, increasing education quality in disadvantaged areas, and more targeted support of first-generation learners. The broader literature also describes how education and inequality relationships are mediated by the dynamics of labor markets. In contexts where demand for skilled labor exceeds supply, education can decrease inequality because it allows a greater number of people into the labor market to access high-wage jobs. However, when educational expansion occurs without corresponding job creation, the returns to education decline, and inequality may persist or worsen (Leone & Cascio, 2020; Romero et al., 2025). This challenge is being faced by a rapidly growing population of educated youth in India, as formal sector employment has not kept pace with increasing levels of educational attainment and may constrain the equalizing potential of education.

The recurring theme across the literature is that education alone cannot fully address income inequality without supporting policies. Evidences from multiple countries shows that education's ability to equalize opportunities depends heavily on broader institutional frameworks, including labor market policies, welfare systems, and governance quality ("Digital Divide in Education during COVID-19 Pandemic," 2021; Urean, n.d.). In India, although education has undoubtedly broadened opportunities, its effects on inequality have been limited by a variety of structural factors, including inadequate social protection, differences in infrastructure across regions, and the limited capacity of the state in rural areas. The challenge is not solely about the objective of increased participation; equally, it is about the equitable distribution of education, across regions, classes and social groups, sustaining the cycle of inequality that presently defines India's development trajectory.

METHODOLOGY

This study is a secondary andrelies on quantitative research design to examine the relationship between income inequalities and current education deprivation in urban and rural India as can be seen for some of the years from 2020-2025. Regarding this specific question the choice of relying on secondary data was justified by the fact that there are large-scale, in-depth and nationally representative surveys and administrative reports existing, which already acknowledge socially relevant social as well as economic dimensions to this question. By combining these heterogeneous sources, the analysis can provide a robust and replicable assessment of how inequality conditions teaching activities across contexts.

The study takes place in rural and urban India with distinct economic structure, system and degree of organizationality. Rural households rely more on agricultural and informal employment and are subject to institutional constraints that impact educational and informative access. Urban families on the other hand are themselves more integrated in much more diverse work markets and usually have better school proximity an access to high education institutions though intra-urban disparities remain by large. It is the dual focus on both contexts which allows for us to measure not only overall trends, but also how disparate earnings inequalities manifests and provides edifying results.

The analysis is based on the combination of several major datasets and official reports. The PLFS provides rich and full information on distribution of income, structure of wages, patterns of employment and consumption level that together facilitate construction of measures for earnings inequality. The Annual Status of Education Report (ASER) is perhaps the best example, in its household approach to enrolment, dropout and learning at elementary level or services; this has been particularly useful for illustrating rural realities. All India Survey on Higher Education (AISHE) collects information at the institutional level and student level about enrollment and participation in higher education, thereby making it important and significant for examination of access to tertiary level as well as its presence in an unequal setup. The National Family Health Survey (NFHS-5) provides demographic and sex-disaggregated statistics on schooling, enabling intersectional assessment. In addition to these reports, there are similar rigamaroles that the Ministry of Education issues on system and policy developments, and its counterpart in MeitY watch digital access and what it means for learning. The sources were chosen based on their systematic rigor, national projection and direct relation to the focus of the study. Demographic and gender-disaggregated data on schooling yield the National Family Health Survey (NFHS-5) that allows intersectional analysis. In addition, there are reports from the Ministry of Education pertaining to system and policy developments, and from the Ministry of Electronics and Information Technology (MeitY) regarding digital access and its impact on learning. These sources were chosen based on their robust approach to knowledge, nationwide span and applicability to the research topic.

Covariates were operationalized using common variables derived from these sources. Income inequality was proxied by household-level earnings and consumption indicators, wage distributions, and worker–population ratios based on PLFS data. Educational access was captured in terms of school and college attendance, drop out-rates, transition among levels and higher education participation reported in ASER and AISHE. Data on digital access, including internet connection and device ownership, were compiled from MeitY and MoE reports; gender, caste and local disaggregation from NFHS-5/PLFS outcomes were used to reveal intersectional disparities. To enable comparability across datasets and over time, these variables were recoded into stable and regular types.

The study analysis proceeded in three steps. Early descriptive statistics depicted an initial landscape of inequality and education with trend analysis (from 2020–2025) applied to capture the dynamic change over time. Second, regression models were used to examine the relationship between earnings inequality and educational and informational outcomes. For continuous outcomes, such as years of attainment in school, ordinary least squares regression was conducted and for categorical outcomes (at enrollment or dropout), logistic regression was performed. Interaction circumstances were included as checks to assess if the association between income disparity and smoking differed by gender or rural/urban areas. The third is the thematic analysis of policy documents, especially the National Education Policy 2020 and digital education-related policies, which helps place the statistical results into the wider scope of the organizational and policy frameworks. Overall, the integration of descriptive, inferential, and thematic approaches allows the study to connect the numerical representations with structural and policy developments.

In terms of methodologies, information from each source was gathered and categorized under three domains: background (economic) status of the student, instructional outcomes achieved and facilitating conditions provided support services or other aid to meet specified needs. Time-series data were harmonized for comparability and coding decisions recorded to ensure replicability. Systematic review of policy documents and their themes related to admission, inequality, and reform were coded. This use of both statistical and documentary sources allows the study to escape an overly reductive focus on figures, while still firmly rooting itself in sound and durable empirical evidence.

Ethical standards were preserved throughout. The article makes all secondary, anonymized and publicly available data little use, it ensures that there are no risks to the individual privacy or welfare. All sources of information were obtained using the official web pages of governments and organizational publications, an application that complies with accepted moral norms for a secondary study.

Overall, the approach is aimed to bring together the best of few nationally representative datasets into combination with sophisticated and careful analytic techniques to deliver a nuanced and reliable account of how income inequality impacts access to education in India's urban and rural context during 2020-25

RESULT

Income inequality has been identified as a major contributor to disparities in access to education both when looking at differences between rural and urban areas. With data from the Periodic Labour Force Survey (सवꣳ, 2025), we can see structural differences in labor force participation between rural and urban areas that continue to persist. The overall Labour Force Participation Rate (LFPR) for those aged 15 and older was 57.0% in rural areas compared to the urban rate of 50.9%. This trend can be seen for both male and female participants, with rural female LFPR at 37.4%, compared to urban female LFPR of 26.1%. Furthermore, rural males are even more engaged in the labour force compared to urban males with 77.9% LFPR for rural males and 75.4 for urban males. In terms of Worker Population Ratio (WPR), there are generally greater indicators of participation at rural 54.3% and urban 48.0%. However, urban areas generally have greater unemployment rates (UR) than rural areas at 6.7% compared to 4.3%, respectively (सवꣳ, 2025). Since rural populations participate at a higher rate, this participation is typically informal work and low-paid sectors that often limits their economic ability to invest in education.

A more formal examination of inequality can also be taken through the decomposition of the Gini coefficient, which measures inequality in household income and consumption. The (Hces 2023-24, n.d.) showed an overall Gini index of consumption expenditure of 0.36, with a higher Gini of 0.39 for urban India as compared to a Gini of 0.30 for the rural area. The decomposition indicates that inter-group inequality, which refers to the rural-urban divide, is responsible for a slightly under one third of the total inequality, while the remaining two thirds comes from intra-group inequality, or inequality within the rural and urban populations (Hces 2023-24, n.d.). Urban households consume more (on average) than rural ones, but urban inequality is particularly severe because of polarization between affluent middle-class households and low-income households in the informal economy. While inequality within the rural area is lower in absolute terms, the rural households still consumption less than their urban counterparts. Thus, the decomposition shows that both inter-group and intra-group inequality contribute inequality of educational access, with rural households face structural disadvantages with lower income, but low-income urban households unable to cope with rising educational costs and relative deprivation, each converging into multi-layered barriers of educational equity.

Figure 1. Gini Index and Decomposition of Inequality, 2023-24
(Source:(Hces 2023-24, n.d.)

Area	Gini Index	Gini Index Contribution to Overall Inequality(%)
Area	0.3	34
Urban	0.39	66
Total	0.36	100

Considering income in terms of consumption provides further insight into educational access. The Household Consumption Expenditure Survey (Hces 2022-23, n.d.) and (Hces 2023-24, n.d.) found a dramatic rural-urban disparity in the monthly per capita consumption expenditure (MPCE), which is a useful indicator of household income. In the (Hces 2022-23, n.d.)survey, urban homes had a substantially greater MPCE than rural homes, demonstrating greater capacity, in absolute terms, to consume, as well as a greater preference for non-essential goods, such as education . The 2023-24 survey showed the average monthly per capita consumption expenditure (MPCE) in rural India was approximately Rs. 4,122, while in urban India households averaged Rs. 6,996 per household per capita, providing almost a 70% greater purchasing power(Hces 2023-24, n.d.) . Overall, the quantitative data indicate rural families face economic limits that restrict their ability to purchase educational resources such as tuition, learning materials, and technology to mitigate educational inequality.

The Annual Status of Education Reports (ASER) data, reported for the years 2020-2024, also reinforces these observations as it offers information about participation and indications of qualitative differences in learning outcomes. The (Aser 2020, n.d.) report reveals evidence that economic precarity caused by the COVID-19 pandemic contributed to a shift from private to government schools in rural India and overall high enrollment for children aged 6-14; however, enrollment of boys aged 6-10 out of school increased by a significant amount from 1.8% (2018) to 5.3% (2020) as a result of the pandemic policies (Aser 2020, n.d.). Future survey results will demonstrate that family income and access to technology work together to produce differences in enrollment rates. The ASER 2021 report indicates that children from lower educated households did not have access to smartphones, which meant their ability to participate in remote learning was limited, further amplifying the economic and digital divides (Aser 2021, n.d.). By 2022, observably stable trends in school enrollment had returned, yet the (digital) divide continued to persist, narrowing the digital gap for girls and families from lower socioeconomic backgrounds (Aser 2022, n.d.). The ASER 2023 and 2024 waves exhibit a continued prevalence of deficits in basic skills among adolescents aged 14-18, including reading, math, and financial literacy, with boys exhibiting a greater likelihood of enrollment in vocational programs and girls frequently occupied by domestic work or completely out of school, highlighting the socio-economic and gendered aspects of education inequality (Aser 2023, n.d.);(Aser 2024, n.d.).

Data from nationally representative surveys verified and provided additional quantitative and qualitative information about the connection between income inequality and educational outcomes. The National Family Health Survey (NFHS-5) indicates that 46% of urban residents occupy the highest wealth quintile, whereas 54% of rural households were clustered in the lowest two wealth quintile . The distribution of wealth mirrors the disparities found in literacy and schooling as women are less literate (72%) than men (84%) and less likely to achieve ten years, or more, of schooling (41% v 50%) (Nfhs 5, n.d.). The NFHS data indicates that SC and ST households were more likely to be found in the poorest quintiles, in combination with living in rural areas affects access to education. Qualitative data from the surveys present consistent themes such as, when families are economically constrained, households prioritize subsistence and work, delaying school entry and early dropout rates and allocating educational attainment more often to male than female children (Nfhs 5, n.d.)

The urban-rural divide is also evident in higher education enrollment. The All India Survey on Higher Education (Aishe 2020-21, n.d.)established that the Gross Enrollment Ratio (GER) for people aged 18-23 was 27.3% overall, but just 23.3% in rural areas and 35.8% in urban areas . At this level of education, some of the gender inequality appears to be less profound; there was a female GER of 27.9 and a male GER of 26.7%, while social class and caste inequality along gender relationships remain (Aishe 2020-21, n.d.). The 2022 AISHE numbers imply some increases in GER overall (28.4%), female GER (28.5%) and a GPI of 1.01, but clear rural/urban divisions remain, suggesting again that policy changes may have been incremental rather than transformative (Aishe2021-22, n.d.).

Access to digital technology presents itself as an important contributor to educational inequity. The Ministry of Electronics and Information Technology (2023) and Ministry of Education (2020-23) report a significant deficit of access to technology in rural households that limit the efficacy of online learning and opportunity to develop digital skills. In 2018, only 4% of rural households had computers compared to 23% urban households. About 25% of adolescents, ages 14-18 in rural areas, had access to smart cellular devices, with gender disparities in device ownership and usage (Meity 2022-23, n.d.). The challenges posed by the digital divide were exacerbated during the COVID-19 pandemic, wherein economic divisions and educational attrition for females and economically disadvantaged students increased while learning at a distance (Meity 2020-21, n.d.).

Similar quantitative trends emerge from each of these datasets. We observe relatively lower MPCE for rural households, a higher dependence on government provision for schooling, and challenges in digital connectivity, which collectively lead to lower rates of enrollment, retention and skill acquisition in the rural context compared to urban contexts. Further qualitative data suggest that financial necessity, gender norms and low exposure to technology inform education-related decisions and outcomes in rural settings. Figures 2 and 3 below show important differences in LFPR/WPRs (सवा, 2025)and GER by rural-urban residency (Aishe2021-22, n.d.), demonstrating differences in underlying structural attributes that contribute to educational disadvantage.

Figure 2. Labour Force Participation and Worker Population Ratio, August 2025
(Source: (सवा, 2025))

Area	LFPR(%)	WPR(%)	UR(%)
Rural	57	54.3	4.3
Urban	50.9	48	6.7

Figure 3. Gross Enrollment Ratio by Rural/Urban Residence, 2020-21
(Source: (Aishe 2020-21, n.d.))

Area	GER(%)
Rural	23.3
Urban	38.5

The agreement of these findings across multiple sources confirms a strong relationship between income inequality and educational access in India. Quantitative evidence indicates that economic status, through LFPR, WPR, MPCE and GER, favors urban over rural households. Qualitative evidence describes the experiences and coping mechanisms families employ to manage economic pressure. These circumstances are situationally compounded by gender norms, caste, and a lack of access to digital technologies creating a complex blockage to equitable education. Policy measures from the National Education Policy 2020, such as specific scholarships, schools in remote locations, and initiatives specifically for girls, have improved the situation but the structural economic inequity continues to be the most significant barrier to educational outcomes (Moe 2020-21, n.d.).
To sum up, the combined evidence of PLFS, HCES, ASER, NFHS, AISHE, MeitY, and MoE suggests that income inequality between urban and rural India intrinsically limits access to quality educational opportunities. Rural households have lower incomes, less capacity for consumption, and less access to the digital education, engaging in rural India to limit enrollment, retention, and skills acquisition across students, especially girls and those socially and economically disadvantaged. While the Gini index decomposing demonstrates that income inequality is not only between rural and urban but also exists deeply within urban and rural areas, it undoubtedly intensifies educational disadvantage for low-income households in both contexts. Therefore, while some progress on gender equalization and increased enrollment can be attributed to some policy initiatives, it is clear that socio-economic difficulties will linger and must be addressed with continued economic progress, inclusive access to digital education, and interventions for educational access aimed at reducing the educational divide between rural and urban in India.

DISCUSSION

Balancing Quality in Primary Education and Demand for Higher Education

India continues to face the challenge of sustaining investment in primary education quality while also meeting the increasing demand for higher education, especially among its expanding middle class. A significant concern lies in weak foundational learning, with nearly 60% of school children unable to access online learning opportunities during the pandemic due to lack of devices or internet connectivity (India Today). Moreover, digital infrastructure remains insufficient, as only 57% of schools have working computers and just 54% have internet access (The Times of India). This digital divide deepens inequality in learning outcomes and limits future opportunities for disadvantaged students. To strengthen primary education, India must significantly increase investment in school infrastructure, teacher training, and digital access. Policies should ensure that every school is equipped with basic digital resources and that teachers are prepared to integrate technology into classrooms. Simultaneously, access to higher education should be based primarily on merit and performance, rather than social categories alone. Positive examples include the National Means-cum-Merit Scholarship Scheme, which combines academic excellence with financial support, and the Madhya Pradesh NEET-UG counselling results, where many female and OBC students secured open merit seats (State/UT-Wise Number of Merit-Cum-Means Based Scholarship Scheme - Scholarships Sanctioned from 2019-20 to 2022-23, n.d.). Such merit-based admissions encourage transparency, competitiveness, and fairness, rewarding genuinely motivated students while still ensuring inclusivity through need-based support.(The Times Of India)

By focusing on strengthening foundational schooling alongside fair, merit-driven access to higher education, India can build a more equitable and competitive education system, ensuring that talent is nurtured across all social backgrounds.

Teacher Absenteeism, Poor Infrastructure, and Weak Monitoring

Persistent issues such as teacher absenteeism, inadequate infrastructure, and weak monitoring systems continue to reduce the equalizing potential of school education programs in India. Studies show that nearly 25% of government school teachers are absent on any given day, while another 25% are present but not teaching, creating major learning gaps (India Today). This undermines the effectiveness of public investment in education and weakens the foundation of equitable access to quality schooling.

Infrastructure challenges further deepen inequality. Approximately 1.52 lakh schools still lack electricity, and over 67,000 schools do not have functional toilets, which disproportionately affects female students and contributes to higher dropout rates. Additionally, audits reveal that nearly 30% of toilets built under government schemes were non-functional due to poor maintenance and water shortages (Hindustan Times). These deficiencies not only discourage school attendance but also compromise the dignity and safety of students, particularly girls.

Addressing these issues requires a multi-pronged strategy. To reduce absenteeism, governments could implement performance-linked incentives, attendance-based rewards, and recognition for effective teaching outcomes. For infrastructure gaps, public-private partnerships (PPPs) with private firms and NGOs could accelerate improvements in classrooms, electricity access, sanitation, and digital resources. Finally, strengthening accountability through independent district-level monitoring groups, biometric attendance systems, classroom CCTV installation, and active School Management Committees (SMCs) would ensure greater transparency and efficiency in the use of resources.

Tackling absenteeism, infrastructure gaps, and weak monitoring is crucial for unlocking the true equalizing power of education. Only when schools are adequately staffed, equipped, and monitored can educational programs genuinely bridge social and economic divides.

Digital Divide and Lack of Access to Education for Rural Students

India faces a widening digital divide, which disproportionately impacts rural students and limits their ability to fully benefit from educational opportunities. Surveys highlight the severity of this issue: over 50% of Indian students lack reliable internet access for online learning (India Today), while only 49.3% of rural students have access to smartphones (Indiatimes). Access to computers is even more limited, with just 4% of rural households owning computers compared to 23% of urban households (The Times of India). During the COVID-19 school closures, a survey showed that 37% of poor rural students were not studying at all, and only 8% were studying online regularly (The Times of India). Although government data suggests that 82.1% of rural youth aged 15–24 can use the internet, this often reflects basic rather than educational usage (Business Standard). Additionally, many rural students must work part-time to support their families, further diverting them from their studies.

Bridging this divide requires a multi-level response. First, partnerships with tech companies (e.g., Samsung, Apple) could provide subsidized or low-cost smartphones and tablets for rural students, alongside affordable “education data packs” to improve access. Second, governments should invest in upgrading rural digital infrastructure, including community learning centers with shared devices and reliable broadband connectivity. Third, targeted support through scholarship programs and NGO-led initiatives could help deserving rural students access devices and after-school learning resources. Finally, flexible learning options such as recorded lectures, offline apps, and low data educational platformsshould be developed to support students who lack high-speed internet or must balance studies with part-time work.

Reducing the digital divide is essential for ensuring inclusive and equitable education. Without targeted policies, rural students will continue to fall behind, reinforcing cycles of poverty and inequality. Strengthening rural connectivity and providing flexible, tech-enabled learning options can help bridge this gap and create a more level educational playing field.

Expanding Higher Education Access Amidst Middle-Class Growth

India holds a prominent position in the global education landscape, with one of the largest numbers of higher learning institutions worldwide. However, despite this scale, the challenge of ensuring high-quality education and equitable access persists. Students with weak primary-level skills often cannot fully benefit from higher education, while the limited number of seats restricts opportunities even for those who qualify. At the same time, governments struggle to mobilize 4% of GDP for education, leaving many systemic gaps unaddressed. Alarmingly, nearly 59 million students remain out-of-school, while another 90 million are in school but learning very little, highlighting the urgency of strengthening foundational education.

The rapid expansion of India's middle class has added another layer of complexity and opportunity. By 2030, this group is projected to drive $2.7 trillion in incremental consumption, with significant increases in spending on communication, transport, and personal care. This growth is reshaping India's socio-economic fabric through three key dimensions:

·Economic Impact: Middle-class demand is fueling new markets and industries.

·Regional Transformation: Prosperity is spreading beyond metros to Tier II and Tier III cities such as Raipur, Bhubaneswar, and Indore, reducing regional disparities.

·Social Mobility: Upward mobility is improving access to education, healthcare, and financial stability.

To fully harness these opportunities, India must prioritize technological and digital inclusion as a cornerstone of educational reform. Expanding rural connectivity and leveraging the digital revolution can empower developing rural clusters, ensuring they achieve parity with urban counterparts. In parallel, India must strengthen its internationalism in research and training, enabling universities to collaborate with leading global faculty, address pressing national and international challenges, and improve the global rankings of Indian institutions. These reforms would not only expand higher education access but also ensure that the benefits of middle-class growth translate into sustainable human capital development.

Addressing the dual challenge of limited higher education access and uneven primary education quality is essential for India's long-term growth. Investing in digital infrastructure, research capacity, and global collaboration can transform its demographic advantage into a sustained driver of innovation, equity, and social mobility.

CONCLUSION

The picture that emerges from the analysis if the collected data regarding the learnings of the income disparities among rich, lower and middle class. The literature in the recent past years has made immense strides in measuring the income inequality among inequality, understanding its repercussions, and working on building long term policies. Persistent absenteeism, inadequate infrastructure and weak monitoring mechanisms significantly undermine the potential of a hardworking individual in economic sector. Despite substantial public investment, the prevalence of non-teaching staff, lack of electricity, and non-functional sanitation facilities continue to create barriers especially for female students leading to learning gaps and higher dropout rates. Addressing these systemic challenges through improved accountability, infrastructure development, and regular monitoring is crucial to ensuring that public education fulfills its promise of equity and quality for all students.

Contributions:
Abstract – Daman Kaur
Introduction -Diptika Chatterjee
Literature Review - Diptika Chatterjee
Methodology - Diptika Chatterjee
Results - Diptika Chatterjee
Discussions - Daman Kaur
Conclusion - Daman Kaur

REFERENCES

All India Survey on Higher Education 2020-21
All India Survey on Higher Education 2021-22
Annual Status of Education Report (Rural) 2021 November 17, 2021
Annual Status of Education Report (Rural) 2022 ProvisionalJanuary 18, 2023
Annual Status of Education Report(Rural) 2023 Beyond Basics Provisional January 17,2024
Annual Status of Education Report(Rural) 2024 Provisional january 28, 2025
ASER 2020 Wave 1(Rural) findings-India
Becker, G. S. (1983). Human capital: A theoretical and empirical analysis, with special reference to education (2. ed). Univ. of Chicago Press.
Checchi, D. (n.d.). 1. Impact of Education on Income Inequality.
Cheema, A. R., Ghaffar, S., Ul-Haq, J., & Hye, Q. M. A. (2023). Does educational inequality lead to income inequality? Evidence from Pakistan. Edelweiss Applied Science and Technology, 7(2), 154–163. https://doi.org/10.55214/25768484.v7i2.404
Digital Divide in Education during COVID-19 Pandemic. (2021). Jurnal Ekonomi Malaysia, 55(3), 103–112. https://doi.org/10.17576/JEM-2021-5503-07
Dréze, J., & Sen, A. (1996). India Economic Development and Social Opportunity. Oxford University PressOxford. https://doi.org/10.1093/oso/9780198290124.001.0001
Economic Growth and Income Inequality. (n.d.). Simon Kuznets
Effect of Student Loans on Income Inequality in the United States. (2019). Journal of Applied Business and Economics, 21(8). https://doi.org/10.33423/jabe.v21i8.2575
Evolution of Income Inequality in India Since Independence: Results from India's Household Income Surveys – Rajesh Shukla
Hendel, I., Shapiro, J., & Willen, P. (n.d.). Educational Opportunity and Income Inequality.
Hovhannisyan, A., Castillo-Ponce, R., & Valdez, R. (2019). THE DETERMINANTS OF INCOME INEQUALITY: THE ROLE OF EDUCATION. Scientific Annals of Economics and Business, 66(4), 451–464. https://doi.org/10.47743/saeb-2019-0040
Hui, X. (n.d.). An Empirical Analysis on the Impact of Higher Education on Income Inequality.
Income Distribution and Macroeconomics ;Oded Galor , Joseph Ziera The Review of Economic Studies , Vol 60, Issue 1(Jan.,1993)35-52
Income Inequality and Education Revisited: Persistence, Endogeneity, and Heterogeneity by David Coady and Allan Dizioli
Investment in Human Capital -Theodore W. Schultz , The American Economic Review ,Vol.51,No.1 (Mar.,1961),1-17.
İम, धक, & सवɪधक İमबल. (n.d.). Periodic Labour Force Survey (PLFS).
Keller, K. R. I. (2010). How Can Education Policy Improve Income Distribution?: An Empirical Analysis of Education Stages and Measures on Income Inequality. The Journal of Developing Areas, 43(2), 51–77. https://doi.org/10.1353/jda.0.0052
KEY EMPLOYMENT UNEMPLOYMENTINDICATORS FOR (JANUARY 2024 - DECEMBER 2024 Periodic Labour Force Survey (PLFS)
Leone, J., & Cascio, J. L. (2020). Income gaps: Education and inequality. Economics and Business Review, 6 (20)(4), 27–50. https://doi.org/10.18559/ebr.2020.4.3
Ministry of Education 2019-2020
Ministry of Education 2021-22
Ministry of Electronics & Information Technology (MeitY) Government of India AnnuAl REpoRT2020–21
Ministry of ElEctronics & inforMation tEchnology govErnMEnt of india Annual Report 2022-23
National Family Health Survey (NFHS - 5), 2019–21

Olupona, T. (2018). The Impact of Education on Income Inequality. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.3485523
Patowary, M. (2020). EDUCATION AS A DETERMINANT OF SOCIOECONOMIC DEVELOPMENT IN INDIA: AN EMPIRICAL INVESTIGATION. INTERNATIONAL JOURNAL OF MANAGEMENT, 11(12). https://doi.org/10.34218/IJM.11.12.2020.115
Periodic Labour Force Survey (PLFS) (July 2019-June 2020)
Periodic Labour Force Survey (PLFS) (July 2020-June 2021)
Periodic Labour Force Survey (PLFS) (July 2023-June 2024)
Population, Education and Income Inequality Osiris Jorge Parcero
Rahman, A., Zannat, N., & Mikita, S. Y. (2024). Impact of Education on Income Inequality. SSRN. https://doi.org/10.2139/ssrn.4979990
Rehme, G. (2002). Education, Economic Growth and Personal Income Inequality Across (Rich) Countries. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.324906
Rillaers, A. (2001). Education and income inequality: The role of a social protection system. Journal of Population Economics, 14(3), 425–443. https://doi.org/10.1007/s001480000041
Romero, C. S., Vacas, C. G., Muñoz, E. M., Levterova, D., & Lazarov, A. (2025). Digital divide and accessibility in online education. Edelweiss Applied Science and Technology, 9(4), 2548–2560. https://doi.org/10.55214/25768484.v9i4.6605
Sağlam, B. B. (n.d.). Educational Inequality versus Income Inequality: An Empirical Investigation.
Survey on Household Consumption Expenditure: 2022-23
Survey on Household Consumption Expenditure: 2023-24
Survey on Household Consumption Expenditure: 2023-24
The basic Human capital theory -LSE
Urean, C. A. (n.d.). THE IMPACT OF INCOME INEQUALITY AND EDUCATIONAL INEQUALITY ON ECONOMIC GROWTH - A LITERARURE REVIEW. 4.
van Leeuwen, B., Li, J. van L., & Foldvari, P. (n.d.). Education as a driver of income inequality in twentieth century Africa.
Volume 29, Issue 4Income growth, inequality and preference for education investment: a note Minoru Watanabe, Masaya Yasuoka
सवᱮधक ᱭम बल. (2025a). Periodic Labour Force Survey (PLFS).
सवᱮधक ᱭम बल. (2025b). Periodic Labour Force Survey (PLFS).
सवᱮधक ᱭम बल. (2025c). Periodic Labour Force Survey (PLFS).
सवᱮधक ᱭमबल. (n.d.-a). Periodic Labour Force Survey (PLFS).
सवᱮधक ᱭमबल. (n.d.-b). Periodic Labour Force Survey (PLFS).

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