

Predictive Analytics to assess the cost of educational exclusion in Rural India

Sanjana Chauhan
Amity International School, Noida, India
sanjanachauhan2008@gmail.com

Pankaj Sinha*
, Faculty of Management Studies,
University of Delhi, Delhi, India
pankaj-sinha@fms.edu

ABSTRACT- This study estimates the socio-economic costs of educational exclusion in rural India, focusing on how policy gaps affect access, attainment, and long-term economic outcomes. Using a mixed-methods approach with household surveys and Sarpanch interviews, the study finds that income disparities and gender play critical roles in school attendance. Girls face compounded barriers due to financial constraints, cultural norms, and safety concerns. Major obstacles include school costs, distance, inadequate infrastructure, lack of toilets, and a mismatch between home and instructional languages. Delayed funds, shortage of trained teachers, and low parental awareness further exacerbate exclusion. Dropouts often end up in low-wage work or family enterprises, reinforcing intergenerational poverty. Despite challenges, strong community support for education exists. Policy recommendations include direct cash transfers, mother tongue instruction, improved infrastructure, gender-sensitive programs, and digital inclusion, alongside systemic reforms to reduce bureaucratic hurdles and ensure secure funding. A holistic approach is essential to foster equitable educational opportunities for rural children.

Keywords: *Economics of Exclusion, Socio-economic Cost, Social Development, Policy, School Dropout, School Infrastructure, Digital Access*

I. INTRODUCTION

Education is universally accepted as a fundamental human right and a key driver of socio-economic development. Education empowers people; education reduces poverty and improves social equity (Sen, 1999). Yet educational access and attainment differ based on disparate experiences, wherein complex, interrelated socioeconomics and public policies conspire to produce educational exclusion, with high opportunity costs to individuals and socio-economic costs to households and communities.

Every education policy gap has a socio-economic and development cost. This research study aims to analyze the socio-economic costs of educational exclusion resulting from these policy gaps in rural India, and to assess what is missing in education policy regarding access, attainment, and the future economic impact of long-term hindrances created by

exclusion. By examining household-level data and community perspectives on educational exclusion, the study identifies the critical barriers to educational participation and potential policies to promote inclusive and equitable educational opportunities for those living in rural areas.

II. LITERATURE REVIEW

Theoretical Frameworks

Educational inequality has been analyzed through multiple theoretical lenses. Marx's conflict theory highlights the role of class and production relations in perpetuating inequality, while Weber added dimensions of status and power, linking education to broader socio-political structures. Structural functionalism (Durkheim) views inequality as functional to role allocation, though critics argue it neglects systemic barriers. Bourdieu's cultural capital theory stresses the role of language, values, and background in shaping educational outcomes, with disadvantaged groups lacking the cultural resources valued in formal schooling. Sen's capability approach emphasizes freedoms and opportunities, showing how exclusion constrains life chances.

From an economic perspective, the Human Capital Theory (HCT) views education as an investment in skills that enhance productivity and growth. Pioneers such as Schultz (1960s), Becker (1964), and Mincer (1970s) linked education with income and wage differentials, while later growth theorists (Lucas, 1988; Romer, 1990) embedded it in endogenous growth models. However, HCT has been criticized for overemphasizing financial returns and neglecting sociocultural realities, especially in developing countries, where unemployment, discrimination, and low-quality education shape outcomes. Sen (1985, 2000) argued that education should be seen as enhancing capabilities beyond market value. Feminist and intersectional perspectives (Crenshaw, 2015) further show how overlapping identities such as gender, caste, and class intensify exclusion.

Overall, these frameworks underscore that educational inequality stems not only from individual choice or economic investment, but also from deep structural, cultural, and policy-linked barriers.

Human Capital, Education, and Development

Education contributes to individual income, social mobility, and broader economic growth, but also provides non-monetary benefits such as socialization, civic participation, and public goods. Unlike other investments, education is partly irreversible and shaped by time, teacher quality, and institutional structures. Critics highlight information asymmetry, credentialism, and "satisficing" behavior, which undermine the rational-actor assumptions of HCT. Moreover, the gap between educational expansion and labor-market absorption questions the promise of automatic returns to growth. Scholars suggest complementing HCT with concepts of social and institutional capital (Som, 2014) and with Sen's capability framework to achieve a holistic view.

Education and Social Development in India

In India, education is central to reducing poverty and enhancing employability, but systemic inequalities persist. Caste remains a strong determinant of access, with Dalits and other marginalized groups facing structural barriers despite affirmative action. Gender disparities are stark: rural girls often face early marriage, household responsibilities, and safety concerns, limiting participation despite rising enrolment. Regional variations further deepen inequity: Kerala achieves near-universal literacy, while states like Bihar and Uttar Pradesh struggle with weak infrastructure and governance.

Education also shapes social cohesion and national identity, yet unequal access risks reinforcing divisions. Illiteracy, particularly among older rural populations, constrains decision-making and well-being. Intergenerational inequality persists, as uneducated parents are less likely to prioritize their children's education. The growth of private schools has created a dual system: while some offer higher-quality education, they remain unaffordable for most, deepening class divides. Urban-rural disparities in STEM education and digital opportunities are pronounced, limiting rural students' access to emerging sectors.

Education Policies in India

India's education policies aim to bridge these divides, but effectiveness varies.

- Right to Education Act (2009): Mandates free and compulsory education for children ages 6–14, addressing fee and infrastructure gaps.
- Mid-Day Meal Scheme (1995): Provides free meals to improve enrolment and retention.
- Scholarships, including the National Means-cum-Merit Scholarship and others, support disadvantaged students, though access remains uneven.
- Rashtriya Madhyamik Shiksha Abhiyan (RMSA) (2009): Expands secondary education through infrastructure and teacher training.
- Digital initiatives (e-Vidya, Digital India): Bridge the digital divide, but limited internet and literacy constrain reach.

- Gender-focused schemes (Beti Bachao Beti Padhao): Promote awareness and financial incentives for girls' education.

- Skill India & NSDM: Integrate vocational training to address youth unemployment.

Despite these efforts, challenges remain: inadequate funding, teacher shortages, corruption, and weak governance.

National Education Policy 2020

The NEP 2020 marks a significant reform, emphasizing equity, inclusivity, early childhood education, and skill development. Its goals include raising the Gross Enrolment Ratio to 50% by 2030, integrating out-of-school children, expanding vocational education, and promoting multidisciplinary, flexible higher education. Initiatives such as the Academic Bank of Credits (ABC) and digital learning aim to enhance mobility and employability. Proposals also include raising education spending to 6% of GDP and strengthening governance through the Higher Education Commission of India (HECI).

The policy seeks to include diverse groups, "Divyang" students, transgender communities, and those in marginal areas under a broader SEDG (Socio-Economically Deprived Groups) framework. Gender inclusion funds and Special Education Zones are proposed to address disparities.

However, NEP 2020 faces criticism. Its digital emphasis risks marginalizing rural students who lack access to devices or the internet. The merging of diverse marginalities into SEDGs may overlook group-specific needs, while the absence of explicit attention to caste and reservation rights has raised concerns. Critics also warn that increasing reliance on non-governmental actors may accelerate privatization and worsen inequity. Implementation challenges —funding shortfalls, corruption, and uneven state capacity — remain significant.

III. RESEARCH METHODOLOGY

This research employs a mixed-methods approach, combining quantitative and qualitative data collection and analysis to provide a comprehensive understanding of the socio-economic costs of educational exclusion in rural areas.

3.1 Quantitative Data:

The primary source of quantitative data is the household survey conducted in selected villages. The data about Household Demographics: Household size, caste/tribe, religion, primary language, monthly income; distance to school, availability of transportation, type of school attended; Household Expenditure on Education: Tuition fees, cost of books and supplies, transportation costs, coaching fees; School Resources: Access to textbooks, internet, tuition support, meals; Long-term Outcomes (for households with members over 18): Employment

status, occupation, perceived impact of education on income; Policy Preferences: Willingness to support policy interventions such as stipends, vocational training, and local-language instruction are collected from selected rural areas from North Indian States (Uttar Pradesh, Uttarakhand, Haryana, Rajasthan, Himachal Pradesh)

The quantitative data are analyzed using descriptive statistics to assess the current state of educational access and attainment, disaggregated by gender, age, and income level, and inferential analysis (Cross Tabs and Chi-Square Test), as the primary variables of interest (such as caste, gender, income tier, digital access, and school attendance) are categorical. The chi-square test is appropriate for determining whether there is a statistically significant association between such categorical variables (Agresti, 2018; Benjamin, D., 2018). Chi-square test of independence of attributes is used to assess whether school attendance is associated with caste/tribe or income group, whether dropout reasons differ significantly by gender, and whether distance to school or digital access correlates with school retention. The report thus intends to identify not just patterns but also statistically robust relationships that can impact policy and intervention design

3.2 Qualitative Data:

Qualitative data is drawn from community-level sources, potentially including insights from interviews with the Sarpanch, which provide perspectives on governance initiatives and challenges at the panchayat level. This data can provide contextual understanding of the barriers to education, community perceptions towards schooling, and the feasibility of different policy interventions.

IV. DATA ANALYSIS AND FINDINGS

This study examines the socio-economic and structural barriers to educational access and retention in rural Indian villages. Household surveys and Sarpanch interviews reveal disparities along income, gender, caste, distance, digital access, and systemic factors.

Educational Access and Attainment

Children from higher-income households are more likely to attend school, while girls, particularly in lower-income families, are less likely to attend. Financial constraints, distance, gendered cultural norms, and safety concerns are significant barriers. Language mismatches between school instruction and home language, along with inadequate infrastructure, contribute to higher dropout rates.

Household Education Expenditure

Higher-income households spend more on private schooling and coaching, whereas even modest educational expenses impose a significant burden on

low-income families, sometimes resulting in withdrawal from school.

Long-Term Socio-economic Outcomes

Dropouts are more likely to remain unemployed or engage in low-wage labor, perpetuating intergenerational poverty. Household income is significantly associated with the likelihood of considering school withdrawal ($\chi^2 = 6.11$, $df = 2$, $p = 0.047$). About 71% of households earning less than ₹10,000 per month considered withdrawal, compared to 25% of households earning above ₹20,000. Economic hardship—including direct costs (fees, uniforms, transportation), opportunity costs (child labor), and competing household needs—is a significant determinant of educational discontinuity. Table 10 shows that the association between household income and school withdrawal is substantial.

Gendered Disparities

Cultural restrictions disproportionately affect girls. The "Girls not allowed" report was made exclusively by females ($\chi^2 = 6.25$, $df = 1$, $p = 0.012$), highlighting gender-specific barriers. Safety concerns, limited mobility, and prevailing social norms reduce girls' attendance, while boys face fewer obstacles. Addressing these requires community sensitization, policy reforms, and support systems tailored for girls' education.

Caste and Tribe

School attendance varies significantly by caste and tribe ($\chi^2 = 4.87$, $df = 3$, $p = 0.027$). Scheduled Castes (SC) and Scheduled Tribes (ST) have lower attendance than General and Other Backward Classes (OBC). Historical marginalization, socio-economic disadvantage, and limited parental literacy persist despite government interventions such as reservations and scholarships. Targeted interventions are necessary to improve access, quality, and equity in education for marginalized communities. Table 8 analyses the connection between caste/tribe categories and school attendance

Distance and Infrastructure

Distance to school strongly affects attendance ($\chi^2 = 7.35$, $df = 2$, $p = 0.025$). Children living within 1 km of school have an attendance rate of 88%, while only 33% of children living more than 3 km away attend regularly. Long distances increase transportation costs, travel time, and safety risks, especially for younger children. Strategic school placement, affordable transport, and safe routes are critical to improving attendance. Poor infrastructure, such as the absence of separate girls' toilets, discourages enrollment of adolescent girls and contributes to dropouts.

Language of Instruction

A mismatch between school and home language correlates with higher dropout rates. Instruction in local languages enhances comprehension, engagement, and retention, especially among marginalized groups.

Digital Access and Retention

Access to digital devices is significantly associated with school retention ($\chi^2 = 4.57$, $df = 1$, $p = 0.032$). Students with devices have an 81.8% retention rate compared to 50% for those without. Lack of access limits participation in online and blended learning, reduces engagement, and increases the risk of dropout. Digital access is linked to household income, parental education, and urban-rural location. Interventions should include providing affordable devices, internet connectivity, and digital literacy training for students, parents, and teachers. Solutions must also consider gender and accessibility for children with disabilities.

Community Perceptions and Policy Support

Households express strong support for targeted interventions, particularly for girls and local-language instruction. Sarpanch interviews reveal systemic challenges in the delivery of the educational program, including insufficient resources (30%), inadequate technical knowledge (28%), delayed fund disbursement (32%), and limited awareness of schemes (31%). Governance

improvements reported by Sarpanches include increased scheme delivery (37%) and Gram Sabha participation (41%).

Education-Specific Actions and Challenges

Key steps to improve education included awareness programs (35%), promotion of enrollment through Sarva Shiksha Abhiyan (32%), and school infrastructure improvements (27%). Persistent hurdles include lack of trained teachers (38%), low parental awareness (34%), and insufficient infrastructure funding (32%). Despite minor resistance to girls' education (4%), structural and awareness barriers continue to impede enrollment and retention. Half of the surveyed Sarpanches regularly conduct awareness programs in collaboration with NGOs or government agencies, emphasizing the importance of community-level dissemination of educational information.

Association Between Gender vs. Applicable Reason for Not Attending

Applicable Reason	Female		Male	
	(No.)	%	(No.)	%
The child must work	7	31.80%	3	27.27%
Girls not allowed	5	23.80%	0	0
Safety concerns	4	18.18%	1	9.1%
Financial burden	6	27.22%	5	63.63%

Table 10 Association Between Income and Consideration of School Withdrawal

Income (₹)	Considered Withdrawal		Not Considered		Total	
	(No.)	(%)	(No.)	(%)	(No.)	(%)
<10,000	10	71.43%	4	28.57%	14	100%
10,000–20,000	8	53.3%	7	46.7%	15	100%
>20,000	2	25%	6	75%	8	100%

Table 11: Association between School Distance and School Attendance

Distance to School	Attending		Not Attending		Total	
	(No.)	(%)	(No.)	(%)	(No.)	(%)
<1 km	15	88.24%	2	11.76%	17	100%
1–3 km	10	71.42%	4	28.58%	14	100%
>3 km	3	33.33%	6	66.67%	9	100%

Table 11 Association between Digital Device Access vs. School Retention

Device Access	Retained in School		Dropped Out		Total	
	(No.)	(%)	(No.)	(%)	(No.)	(%)
Yes	18	82%	4	18%	22	100%
No	8	50%	8	50%	16	100%

V. DISCUSSION

Using descriptive and inferential analyses, this study examines the socio-economic and policy-driven

barriers to educational access and attainment in rural Indian villages. Using descriptive statistics of household surveys, we show that children from poor families, girls, and children belonging to weaker sections (marginalized castes and tribes) are disproportionately impacted, resulting in non-attendance and dropping out. Systemic issues such as inadequate infrastructure, delay in funds disbursement, and inadequate parental awareness are also mentioned by Sarpanch interviews from the qualitative insights.

This is further deepened through inferential analysis to quantify the strength and significance of key barriers. However, in statistical tests, we find that children from households earning less than ₹10,000 per month are significantly more likely to consider withdrawing ($\chi^2 = 6.11$, $p = 0.047$) than their counterparts in higher-income households. In this sense, this reiterates the direct influence of poverty on educational continuity, as poor families prioritize present economic survival over durable investments in education.

It was found that barriers such as "Girls not allowed" are reported exclusively by female students ($\chi^2 = 6.25$, $p = 0.012$), which reveals a strong association between gender and this barrier. Girls similarly experience higher rates of non-attendance because of safety issues and cultural norms that epitomize the deeply rooted patriarchal attitudes.

Caste and tribe are associated with differing school attendance rates, with Scheduled Castes and Tribes less likely to attend than the General and OBC categories ($\chi^2 = 4.87$, $p = 0.027$). It is consistent with qualitative reports of discrimination and marginalization. This reinforces the requirement for targeted support for these groups.

As the distance to school increases, attendance drops quickly, yet only one-third of children living more than 3 km from school regularly attend ($\chi^2 = 7.35$, $p = 0.025$). It thereby underscores the importance of accessible infrastructure in rural education.

Furthermore, students without digital devices are more likely to drop out ($\chi^2 = 4.57$, $p = 0.032$). With a digital education at the heart of education delivery, the digital divide becomes a new and pressing axis of inequality.

This confirms that the educational exclusion in rural India is not just the outcome of individual or household choices; it is entwined in structural and systemic inequalities. The effect is intergenerational, as most dropouts get stuck in low-wage labor or remain unemployed, passing on generational poverty.

6. Policy Implications

Descriptive and inferential evidence support the need for a multi-pronged, equity-driven policy response, urgently.

1. Direct Financial Support: Increase need-based scholarships and cash transfers to low-income

families to cover the direct and opportunity costs of schooling.

2. Community sensitization campaigns should be implemented to provide safe, girl-friendly school environments (e.g., transport and sanitation), as well as incentives (e.g., bursaries for girls alone) to increase girls' enrolment and retention.
3. Caste/Tribe Inclusive Measures: Advocate in favor of strengthened caste tribe inclusive affirmative action, tribe inclusive remedial programs, and mentorship for SST students and safe school environments that are free of caste and tribal discrimination.
4. Infrastructure and Accessibility: Support the construction or upgrading of schools so that all children can reach their nearest school within a 1 km (or more) radius, and provide affordable transportation as needed.
5. Digital Inclusion: Supplying affordable digital devices and strengthening rural internet connectivity. Bring the digital literacy piece into the curriculum for students, parents, and teachers.
6. Invest in teacher training, eliminate institutional barriers to government program delivery, and raise community understanding of the importance of education.
7. Findings, both quantitative and qualitative, call for mother-tongue instruction to maintain and promote instruction in local languages, thereby enhancing students' comprehension and engagement.
8. Qualitative findings also reveal that a critical reason for dropping out of school among girls at the stage of puberty is the "absence of a separate girls' toilet" in the village school.

VI. CONCLUSION

Educational exclusion in rural Indian villages falls more on policy gaps and infrastructure barriers, and this study quantifies and contextualizes the socio-economic costs of such exclusion, driving persistent inequities in access, attainment, and long-term economic outcomes. Analyses, both descriptive and inferential, show that income, gender, caste, distance, and digital access are strong predictors of educational participation and dropout. These barriers should be addressed through a holistic, evidence-based approach that articulates financial support for women's participation while keeping gender and caste inclusion in mind, improves infrastructure, including transportation, and promotes digital empowerment. India can only break the vicious cycle of exclusion and poverty and make rural youth realize their full potential, only through such integrated, context-sensitive interventions.

VI. REFERENCES

- [1] Agresti, A., & Tarantola, C. (2018). Simple ways to interpret effects in modeling ordinal categorical data. *Statistica Neerlandica*, 72(3), 210-223.
- [2] Amartya Sen, "Development as Capability Expansion," in L. Griffin & J. Knight (eds.), *Human Development and the International Development Strategy for the 1990s*, London: Macmillan, 1990, 44.
- [3] Arubayi, D. O. (2009). Lecturer quality, quantity, and gender in colleges of education in Nigeria. *College Student Journal*, 43(2), 669-676.
- [4] Benjamin, D. J., Berger, J. O., Johannesson, M., Nosek, B. A., Wagenmakers, E. J., Berk, R., ... & Johnson, V. E. (2018). Redefine statistical significance. *Nature human behavior*, 2(1), 6-10.
- [5] Becker, G. S. (1964). Human capita. *New York: National Bureau of Economic Research*.
- [6] Becker, G. S. (1964). Human capital: A theoretical and empirical analysis, with special reference to education. University of Chicago Press.
- [7] Becker, G. S. (1993). Nobel lecture: The economic way of looking at behavior. *Journal of Political Economy*, 101(3), 385-409.
- [8] Bourdieu, P., & Passeron, J. C. (1977). *Reproduction in education, society, and culture*. Sage Publications.
- [9] Crenshaw, K. (2015). Why intersectionality can't wait. *The Washington Post*, 24(09), 2015.
- [10] Crenshaw, K. W. (2013). Mapping the margins: Intersectionality, identity politics, and violence against women of color. In *The Public Nature of Private Violence* (pp. 93-118). Routledge.
- [11] Cummins, J. (2000). Language, power, and pedagogy: Bilingual children in the crossfire. *Multilingual Matters*.
- [12] Donohue, C., & Miller, K. (2020). COVID-19 and School Dropout: The Digital Divide in Education. *Educational Technology*, 60(4), 7-10.
- [13] Donohue, J. M., & Miller, E. (2020). COVID-19 and school closures. *Jama*, 324(9), 845-847.
- [14] Drèze, J., & Kingdon, G. G. (2001). School Participation in Rural India. *Review of Development Economics*, 5(1), 1-24.
- [15] Drèze, J., & Sen, A. (2002). *India: Development and participation*. Oxford University Press.
- [16] Durkheim, É., & Davy, G. (2014). *Émile Durkheim* (p. 48). Louis-Michaud.
- [17] Duze, C. O. (2010). Average distance traveled to school by primary and secondary school students in Nigeria and its effect on attendance. *African Research Review*, 4(4).
- [18] Engle, P. L., & Black, M. M. (2008). The effect of poverty on child development and educational outcomes. *Annals of the New York Academy of Sciences*, 1136(1), 243-256. <https://doi.org/10.1196/annals.1425.023>
- [19] Engle, P. L., & Black, M. M. (2008). The effect of poverty on child development and educational outcomes. *Annals of the New York academy of sciences*, 1136(1), 243-256.
- [20] Filmer, D. (2007). If you build it, will they come? School availability and school enrollment in 21 poor countries. *Journal of Development Studies*, 43(5), 901-928. <https://doi.org/10.1080/00220380701384588>
- [21] Filmer, D. (2007). If you build it, will they come? School availability and school enrolment in 21 poor countries. *The Journal of Development Studies*, 43(5), 901-928.
- [22] Govinda, R., & Srivastava, M. (2008). Who goes to school? Exploring exclusion in Indian education. Oxford University Press.
- [23] Kabeer, N. (2005). Gender Equality and Women's Empowerment: A Critical Analysis of the Third Millennium Development Goal. *Gender & Development*, 13(1), 13-24.
- [24] Lamaison, P., & Bourdieu, P. (1986). From rules to strategies: An interview with Pierre Bourdieu. *Cultural anthropology*, 1(1), 110-120.
- [25] Loury, G. C. (1981). Intergenerational transfers and the distribution of earnings. *Econometrica*, 49(4), 843-867.
- [26] Lucas Jr, R. E. (1988). On the mechanics of economic development. *Journal of monetary economics*, 22(1), 3-42.
- [27] Mankiw, N. Gregory, David Romer, and David Weil, "A Contribution to the Empirics of Economic Growth," *Quarterly Journal of Economics*, May 1992, 107, 407-438.
- [28] Marx, K. (2000). *Karl Marx: selected writings*. Oxford University Press.
- [29] Mincer, J. (1958). Investment in human capital and personal income distribution. *Journal of Political Economy*, 66(4), 281-302.
- [30] Mincer, J. (1970). The distribution of labor incomes: a survey with special reference to the human capital approach. *Journal of Economic Literature*, 8(1), 1-26.
- [31] Mincer, J. A. (1974). The human capital earnings function. In *schooling, experience, and earnings* (pp. 83-96). NBER.
- [32] Muralidharan, K., & Prakash, N. (2017). Cycling to School: Increasing Secondary School Enrollment for Girls in India. *American Economic Journal: Applied Economics*, 9(3), 321-350.
- [33] North, D. C. (2005). The contribution of the new institutional economics to an understanding of the transition problem. In *Wider perspectives on global development* (pp. 1-15). London: Palgrave Macmillan UK.
- [34] Nussbaum, M. C. (2000). *Women and human development: The capabilities approach*. Cambridge University Press.
- [35] Onakpoma, V. O. (2008). Attrition rates in primary schools in Delta State. *Unpublished M. Ed. Dissertation, Delta State University, Abraka*.
- [36] Okwuasaba, F. K., Osunkwo, U. A., Ekwunghi, M. M., Ekpenyong, K. I., Onwukeme, K. E., Olayinka, A. O., ... & Das, S. C. (1991). Anticonceptive and estrogenic effects of a seed extract of *Ricinus communis* var. minor. *Journal of ethnopharmacology*, 34(2-3), 141-145.
- [37] Pradhan, R., & Kumar, S. (2011). Academic achievement of underprivileged communities: Scheduled Castes and Scheduled Tribes— problems and recommendations. *The Multidisciplinary Journal*, 4(2), 558-563
- [38] Psacharopoulos, G., & Patrinos, H. A. (2018). Returns to investment in education: A decennial review of the global literature. *Education Economics*, 26(5), 543-582.
- [39] Putnam, R. D. (2000). *Bowling alone: The collapse and revival of American community*. Simon & Schuster.
- [40] Romer, P. M. (1990). Capital, labor, and productivity. *Brookings papers on economic activity. Microeconomics*, 1990, 337-367.
- [41] Schultz, T. W. (1960). Capital formation by education. *Journal of Political Economy*, 68(6), 571-583.
- [42] Schultz, T. W. (1961). Investment in human capital. *The American Economic Review*, 51(1), 1-17.
- [43] Schultz, T. W. (1971). Investment in human capital. The role of education and of research.
- [44] Sen, A. (1999). *Commodities and capabilities. OUP Catalog*.
- [45] Sen, A. (1999). *Development as freedom*. Oxford University Press.
- [46] Sen, A. (1999). *Development as freedom (1999). The globalization and development reader: Perspectives on development and global change*, 525.
- [47] Som, D. L. (2014). *The capitals of nations: The role of human, social, and institutional capital in economic evolution*. Oxford University Press
- [48] Tilak, J. B. G. (2019). Financing higher education in India: Emerging issues and policy perspectives. *Higher Education for the Future*, 6(1), 5-25.
- [49] UNESCO. (2016). If you don't understand, how can you learn? *Global Education Monitoring Report*.
- [50] UNESCO. (2019). *Global Education Monitoring Report, 2019: Migration, displacement and education: building bridges, not walls*. United Nations Educational, Scientific, and Cultural Organization
- [51] UNESCO. (2021). *The state of the global education crisis: A path to recovery*. United Nations Educational, Scientific, and Cultural Organization. <https://unesdoc.unesco.org/ark:/48223/pf0000380127>
- [52] UNICEF. (2021). Invisible no more: The urgent need to address the gender data gap in education. UNICEF.

- [53] Weber, M. (2019). *Economy and society: A new translation*. Harvard University Press.
- [54] White, G., Ruther, M., Kahn, J., & Dong, D. (2016). Educational inequality in India: An analysis of gender differences in reading and mathematics. *Journal of Research in Gender Studies*, 6(2), 153-82.
- [55] Wolf, S., McCoy, D. C., & Godfrey, E. B. (2016). Barriers to school attendance and gender inequality: Empirical evidence from a sample of Ghanaian schoolchildren. *Research in Comparative and International Education*, 11(2), 178–193. <https://doi.org/10.1177/1745499916632424>
- [56] World Bank. (2018). World development report 2018: Learning to realize education's promise. World Bank Publications.
- [57] World Bank. (2021). *Remote Learning During COVID-19: Lessons from Today, Principles for Tomorrow*. <https://openknowledge.worldbank.org/handle/10986/36605>