

AND KASHMIR: EXPLORING THE IMPACT AND RECOVERY FROM THE PANDEMIC PERIOD IN THE CONTEXT OF EDUCATIONAL DEVELOPMENT IN INDIA

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ABSTRACT

The SARS-CoV-2 virus, or Covid-19, was a terrible development for global education and related sectors. The entire nation was under total lockdown because of Covid-19, and this included the country's educational system. The pupils who suffered the most from the school closures were those who had no opportunity to learn at home. A loss of education may come from the school closing, and a loss of education would equate to a loss of human resource development overall. The entire spectrum of education was about to implode. However, suddenly, the Internet turns out to be a godsend and transforms the educational landscape from a physical classroom to a virtual one. The internet was used for all education-related activities, saving millions of students' futures, and advancing the cause of future resource endowment. This chapter attempts to analyze the state of education in Jammu and Kashmir both during and after the pandemic's recovery, keeping in mind the full range of Covid-19 and the value of education. The information utilized in this chapter came from the Jammu and Kashmir government's official database, the Directorate of Economics and Statistics' Digest of Statistics. Simple mathematical tools such as compound annual growth rates and percentage changes were used to analyze the data. The data shows a dismal and declining state of the education sector in Jammu and Kashmir during the pandemic and even after recovery, which made the results somewhat startling. The findings demonstrated that, despite an increase in the pass percentage of students between the pre- and post-pandemic periods, the enrollment ratio of students experienced a percentage change of -2.70 and -5.97 for primary and secondary education, respectively. In a similar vein, the number of teachers enrolled has also declined, changing by a positive 89.08 percentage point at the upper secondary level of education but decreasing by -50.43 and -8.48 percentage points at the primary and secondary education levels, respectively. The primary student-teacher ratio in Jammu and Kashmir experienced a negative change of -50.43 over the reference period (2018-19 to 2021-21), according to the results. The chapter also emphasizes how slowly the education sector has expanded over the past few decades, with compound annual growth rates for institutions, students enrolled, and teachers of 0.170, 0.032, and 0.284, respectively. The chapter concludes that while education in the state is improving, it is in disarray overall and needs stable policy support from the government and other non-profit organizations to close the educational gap and reap the benefits of education through better human resources and a better state. This support is needed both during the Covid-19 pandemic and after the recovery period.

Keywords: Educational gap, pupil-teacher ratio, growth, educational impact, pandemic.

1. INTRODUCTION

Every part of everybody's life has been altered because of the pandemic. It also sheds light on the socio-economic fabric of our societies, that has been ripped apart and left unhealed. Our way of life has significantly changed because of Covid 19 (Svoboda, 2020). More than 200,000 cases of coronavirus have been recorded worldwide, spanning over 160 countries. These cases have led to over 8,000 fatalities and severe outbreaks in several States. The Covid-19 pandemic will have a negative effect on the progress certain governments were making in raising the budget for education. Consequently, all governments, stakeholders, and communities must give this crisis their immediate attention and work together to find a solution (GEC, 2020). Both public and private schools faced several difficulties due to the pandemic, including an increase in the digital divide, learning losses, and dropout rates that were predicted. The pandemic also raised concerns about whether private schools could remain viable and whether teachers were prepared to handle such a crisis. But Covid-19 also spurred the use of digital learning in classrooms (Munza Alvi et al, 2020). Many states are about to reopen for business, so it's critical to implement a thoughtful plan to ease kids' return to school after more than 15 months of home-based learning (KPMG, 2021). Policymakers placed greater emphasis on the idea of isolation, social distancing, and quarantine to slow the virus's spread. Lockdowns were thought to be the government's last resort for preserving human life, but they rapidly changed into a double-edged sword that would undermine economic growth by gradually depleting the country's financial reserves and having an adverse effect on all facets of the economy (Pravat Kumar Jena, 2020). Despite the lockdown, every industry in the country is requesting that the government give it its full attention right now to recover (Edgar John Sintema, 2020). However, because the future depends entirely on the educational sector, it is the one crucial area that cannot be compromised. In addition to helping to create the futuristic vision, education is one of the most effective means of promoting sustainable growth, enhancing health and nutrition, and lowering extreme poverty, income inequality, and unemployment (World Bank, 2004). To combat the worldwide pandemic, lockdown caused all schools, colleges, and universities to close, and quarantine procedures were mandated. Most governments worldwide have temporarily shut down educational facilities to stop the Covid-19 pandemic from spreading. This closure has had a significant influence on students worldwide (UNESCO, 2020). Everywhere governments are trying to mitigate the immediate effects of closing schools, particularly for more vulnerable and marginalized groups. Using a range of digital learning systems, they are also trying to make it simpler for everyone to pursue higher education (Labby Ramrathan, 2020). There are 993 universities, 39931 colleges, and 10725 standalone institutions registered on their portal that offered online teaching during the Covid epidemic, according to Choudhary, R. 2020 and Kumar DNS, 2020. Although the nation has been adjusting to modern education, there is still a barrier to complete success because only 45 crores of the nation's population have access to the internet or e-learning (Mukesh Rawal, 2020). To stop the Covid-19 pandemic from spreading, all States and UTs in India have also temporarily closed their educational facilities (UNESCO, 2020). The pandemic has also had a major negative impact on UT's higher education system. The closure of educational institutions in Jammu and Kashmir for longer than a year has negatively impacted students' academic careers. However, the limitations of high-speed internet are making it harder for students to enroll in online courses and obtain information that is essential to developing their careers. The UT government worked tirelessly to revive the education sector as quickly as possible despite all these obstacles, using internet platforms among other avenues.

2. METHODOLOGY AND METHODS

This chapter discusses Jammu and Kashmir's Union Territory's general educational system in the Covid-19 era. The government of Jammu and Kashmir, the J&K Board of School Education, the University of Jammu, the University of Kashmir, the Islamic University of Sciences and Technology Awantipora, Baba Ghulam Shah Badshah University, Rajouri, the Cluster University Jammu/Kashmir, Sri Mata Vaishnav Devi University, Katra, and the State Project Director Samagra Shiksha (UDISE+) were among the secondary sources from which the study's data was gathered. To produce appropriate and logical results, the collected data was tabulated, analyzed, and the required statistical tools-such as the mean, percentage change, and compound annual growth rate-were applied. The outcomes were tallied and examined in light of the chapter's goals. The percentage calculation formula. The formula for calculating percentage change and CAGR are given as;

%change = [(Final Value - Initial Value) ÷ | Initial Value |] × 100

CAGR = (Ending Value/Beginning Value) ^ (1/No. of Periods) - 1

3. IMPACT OF COVID-19 ON EDUCATION SECTOR

Even after the global lockdown is lifted and if social distancing remains the norm, the education sector will continue to face its own set of special challenges (Bhattacharya, 2020). Students must be gathered in classrooms, labs, libraries, dorms, student clubs, and dining areas for peer learning to occur in educational institutions. For the time being, the fear of contagion has destroyed educational institutions; colleges, universities, and schools have closed their campuses, cleaned out their dorms, postponed admissions, and rushed to stream faculty lectures online. Contrary to popular belief, the pandemic's effects on education may last much longer than the pandemic itself (Jena, 2020). The pandemic has replaced the antiquated chalk-talk teaching model with a technologically driven one. Policymakers are under pressure to

find ways to ensure inclusive e-learning solutions, address the digital divide, and increase engagement at scale considering this disruption in the way education is delivered (Jena, 2020). Making the switch to digital was a quick and efficient way to handle the situation. It is now essential to create reliable online platforms to provide learning continuity. However, the change has not been simple in a developing nation like India where there is a wide variation in the socioeconomic backgrounds of students and the caliber of educational institutions. As the crisis persists, the digital divide has been getting worse and requires immediate attention from both public and private sector players. Students will remain engaged and active in the learning process if their teachers are good, and the curriculum is updated with useful resources. To stop the Covid19 pandemic from spreading, the Indian government has implemented a few preventative measures (Priyanka & Omkar, 2020). To enable students to continue their education, the MHRD and University Grants Commission (UGC) have launched a number of virtual platforms that include online depositories, e-books and other online teaching and learning resources, educational channels via Direct to Home TV, and radios (Bhattacharya, 2020). Popular social media platforms like WhatsApp, Zoom, Google Classroom, Google Meet, Telegram, Youtube Live, Facebook Live, and others are used by students for online learning systems during lockdown. The MHRD's ICT initiative is a special platform that brings together all digital resources for online learning (Pravat, 2020). The Covid-19 pandemic and the ensuing lockdown have prompted UGC to release guidelines regarding exams and the academic calendar on April 29, 2020. The final exams have all been rescheduled. Complete calendars for the 2020-2021 academic year have also been prepared by UGC, State, and Central Boards, with updated dates in consideration of the lockdown and online exams administered as needed (Sandhya & Ramesh, 2020). After Article 370 was repealed, students in Jammu and Kashmir were faced with a dual challenge of having to deal with the current internet blockade as well as slower internet speeds (limited to 2G internet) and low broadband speeds. In addition, the cause of online education is hampered by the fact that residents of J&K's rural areas are still severely lacking in access to technology. As more schools, colleges, and universities switch to offering only online courses, questions concerning the caliber of education that can be given remotely have surfaced. Research indicates that a mere 10% of college students possess the necessary skills to utilize technology such as smartphones, laptops, and dependable high-speed internet.

Table 1: Jammu and Kashmir's enrolled teacher population (in lakhs)

Number of Teachers enroll								
Primary level			Secondary level			High/Hr. Secondary level		
2018-	2020-	%	2018-	2020-	%	2020-	2020-	%
19	21	change	19	21	change	21	21	change
11.7	5.8	-50.43	5.66	6.14	8.48	5.77	10.91	89.08

Source: Digest of Statistics, Directorate of Economics and Statistics

Teachers serve as role models for their students, who follow in their footsteps and constantly emulate the manner of life of an effective teacher. The UT of Jammu and Kashmir's enrolled teacher status from 2018 to 2021 is displayed in Table 1. It is evident from the table that there has been a decline in the number of primary school teachers, from 11.5 lakhs to 5.8 lakhs, representing a percentage of -50.43. For both secondary and higher secondary education, the number of teachers has increased: 5.66 lakh to 6.14 lakh, with an 8.48 percentage change, and 5.77 lakh to 10.91 lakhs, with an 89.08 percentage change.

Table 2: Jammu and Kashmir enrollment figures (in lakhs)

	Number of students enroll								
Pr	imary le	evel	Secondary level			High/Hr. Secondary level			
2018-	2020-	%	2018-	2020-	%	2018-	2020-	% change	
19	21	change	19	21	change	19	21		
0.37	0.36	-2.70	0.67	0.63	-5.97	0.73	0.73	0	

Source: Digest of Statistics, Directorate of Economics and Statistics

The students registered in Jammu and Kashmir's primary, secondary, and higher secondary education levels are displayed in Table 2. The table shows that while the number of students enrolled in higher secondary education during the reference period has remained constant at 0.73 lakhs, the number of students at the primary and secondary levels has decreased, as well as in higher secondary education, from 0.37 to 0.36 lakhs with a percentage change of -2.70 and from 0.67 to 0.63 lakhs with a percentage change of -5.97, respectively.

Table 3: Jammu and Kashmir's student-teacher ratio

	Pupil-Teacher ratio								
Primary level			Secondary level			High/Hr. Secondary level			
2018-	2020-	%	2018-	2020-	%	2020-	2020-	%	
19	21	change	19	21	change	21	21	change	
11.7	5.8	-50.43	5.66	6.14	8.48	5.77	10.91	89.08	

Source: Digest of Statistics, Directorate of Economics and Statistics

Note: PTR includes both Govt. and Private Schools

The student-teacher ratio for primary, secondary, and higher secondary education in Jammu and Kashmir from 2018–19 to 2020–21 is shown in Table 3. The table demonstrates that, in the union territory, the pupil-teacher ratio has improved with percentage changes of 8.48 and 89.08 for higher and higher secondary levels of education, respectively, while decreasing for primary education level during the Covid period by -50.43.

Table 4: Students' pass rate in Jammu and Kashmir

Pass percentage								
Matriculation 12th University exams (BA, B						s (BA, BSc)		
2018-	2018-	% change	2018-	2020-	%	2018-	2020-	% change
19	19		19	21	change	19	21	
47.85	79.75	66.67	45.98	82.93	80.36	47.9	60.47	26.24

Source: J&K Board of School Education, 1. Education Department, J&K 2) Jammu University 3. Kashmir University. 4) IUST Awantipura. 5. BGSBU, Rajouri. 6) Cluster University Jmu/ Kmr. 7. SMVDU, Katr

The passing percentage of students in Jammu and Kashmir for matriculation, 12th grade, and university exams (B.A. and BSc.) during the Covid-19 period is displayed in Table 4. The table shows that the number of students has increased at all three of the educational levels, with positive percentage changes for matriculation, 12th grade, and university level exams of 66.67, 80.36, and 26.24, respectively.

Table 5: Growth rates in Jammu & Kashmir for teachers, students, and institutions

Year	No. of	No. of Students on roll	No. of Teachers
	Institutions	(lakhs)	
1968-69	4955	2.7	6340
1989-90	8990	7.57	15406
1999-00	10860	11.05	25369
2010-11	15203	12.59	63123
2018-19	15106	11.07	36728
2019-20	14792	3.33	36236
2020-21	14856	3.36	36424
CAGR	0.170	0.032	0.284

Source: State Project Director Samagra Shiksha (UDISE+)

The Union Territory of Jammu and Kashmir's compound annual growth rate for the number of institutions, enrolled students, and available teachers between 1968 and 2021 is shown in Table 5. The table makes it quite clear that while growth has been positive across the board for the past 54 years, it has still only been less than one. This suggests that the region's education system, particularly its public institutions, is severely underdeveloped and falling behind. The estimated compound annual growth rate (CAGR) for the number of institutions, students enrolled, and teachers available to students is 0.170, 0.030, and 0.284, respectively.

Table 6: Professional Institutes: Institutions, Faculty, and Enrolled Students

Year	Number of Institutions	Number of	Number of	
		Students on roll	teachers	
2018-19	105	23763	2537	
2019-20	167	34068	2698	
2020-21	172	40183	2535	
%age change	63.81	69.10	-0.08	

Source: 1. University of Jammu/Kashmir 3. Higher Education Deptt, J&K 4. IUST, Awantipora

In the Union territory of Jammu and Kashmir, we lag well behind the national average when it comes to professional education. Table 6 illustrates the dire circumstances facing professional institutions and the teachers who are available to instruct the students. It is possible to analyze the table and see that there has been a positive change of 63.81 and 69.10 percent in the number of institutions and students

enrolled, respectively. Only the recent opening of IIMs, medical colleges, and other ITIs in the area have made this feasible. A dismal situation still exists regarding the availability of teachers to teach professional courses in these institutions; in the Union Territory, a percentage change of -0.08 has been recorded during the Covid-19 pandemic.

Year Number of **Teaching** Number of Students on Number of universities roll teachers departments 2018-19 9 212 18294 1286 2019-20 9 226 26792 1340 2020-21 9 217 25938 1237 % change 0.00 2.36 41.78 -3.81

Table 7: Union Territory universities' enrolled faculty and students

Source:1. Education Department, J&K. 2. Jammu University 3. Kashmir University 4. Central University, Jammu/Kashmir 5. IUST Avantipura 6. BGSBU, Rajouri 7. SMVDU, Katra, 8. Cluster University Jammu/Kashmir

Regarding higher education, the number of universities in the area has not changed since the Covid-19 pandemic; however, the number of teaching departments has grown, with a positive percentage change of 2.36; similarly, the number of students enrolled has increased, with a positive percentage change of 41.78. This shows that there has been a notable increase in enrolment. However, the lack of teachers has continued to be a problem for universities across the nation, and this is also the case in the region. Consequently, the number of teachers during the reference period showed a negative percentage change of -3.81.

4. CONCLUSION

To sum up, the worldwide coronavirus outbreak has had a noteworthy influence on the field of education. Covid-19 has affected how instruction is conducted and tests are given at colleges, institutions, and schools. The pandemic has changed the worldwide educational landscape and revolutionized the teaching-learning process with the help of ICT. The study comes to the conclusion that although if everyone can now readily access the teaching and learning process, the infrastructure and teacher-to-student ratio in the area have not improved throughout the Covid era, nor has the system changed. The region's educational situation won't change unless the government-run colleges, universities, and schools have better infrastructure that puts them on pace with the rest of the country, or at least as well as the Delhi Government's. Funds for the construction of new institutions, the creation of new jobs, and, most importantly, the provision of basic infrastructure to already-existing educational

institutions should be prioritized by policymakers in order to enable students to meet the objectives outlined in the sustainable development goals.

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