

Status of School Education in Bihar: An Analysis of UDISE+ 2020-21 Data Collected under Samagra Shiksha Abhiyan

By

Arun C Mehta

*Formerly Professor & Head of the EMIS Department
NIEPA, New Delhi*

Introduction

Since its independence, India has made spectacular progress concerning all aspects of school education, including universal access, participation, and retention. Still, the goal of universal school education is far out of reach. Quality of education is one of the significant areas of concern because many activities are now focused on improving learners' ability to read and write with understanding. Despite impressive progress, there are states far behind the others; without bringing all such states at par with the others, the dream of universal school education is not likely to be cherished shortly.

Bihar is one of the major states of India, with a 22,359 thousand child population which is 11.79 percent of the total population of India (1,89,593 thousand) of age 6 to 14 years. Almost every 12th child of 6 to 14 years of India is located in Bihar. In addition, 93,459 (6.19 percent) of the total 15,09,136 schools covered under UDISE+ 2020-21 are located in Bihar. Without Bihar attaining the status of universal school education, India cannot achieve the goal for which concerted efforts are required to finish the unfinished task. Over time, Bihar, like other states of India, has made progress toward universalization. With a little push, it can move fast towards attaining the goal of universalizing elementary education, which would eventually help India achieve the goal of universal school education.

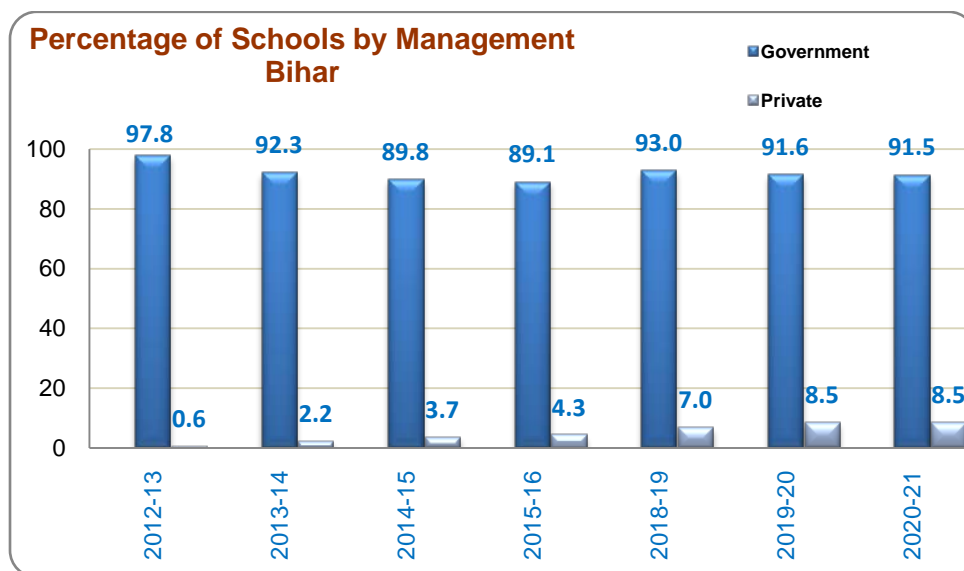
Another primary reason for picking up Bihar for detailed analysis is because the author of this article (Prof. Arun C Mehta) was closely associated with the state from the time of the *Bihar Education Project*, which later necessitated launching similar programs, such as DPEP and later SSA, on a pan-India basis. As a member of the UNICEF Mission to review the *Bihar Education Project*, popularly known as BEP, in 1994, the author got an opportunity to visit seven BEP districts of the undivided Bihar, which helped him to understand the ground reality to a great extent.

One of the other reasons was frequent visits to Patna and other parts of Bihar either to conduct capacity-building programs for the district planning officers or to review EMIS/DISE as a part of *Sarva Shiksha Abhiyan* and later, in the case of RMSA and Unified-DISE. Still remember the then dynamic and popular State Project Director, Shri Vyasji, with whom we have sweet

memories of intensive interaction during the state presentations in the *Beltron House*; those days were highly learning.

Status of School Education in Bihar

The [*Samagra Shiksha State Report Card 2020-21: Bihar*](#) presents all indicators that help in understanding the current status of school education in Bihar in terms of Where do we stand? Most of the indicators are either presented for the primary and upper primary levels of education or the entire school education in Bihar; however, the article does not present a district-specific analysis of the current status of school education. Therefore, the issues which have been flagged need further analysis district-wise as the outcome of any such exercise can provide vital input to plan formulation, which is being undertaken annually under the ongoing flagship program of the Government of India, i.e., *Samagra Shiksha Abhiyan*, which is also under implementation in Bihar.



Growth in the Number of Schools

A glance at the *Samagra Shiksha State Report Card of Bihar* reveals that elementary schools/sections covered under UDISE increased from 53,778 in 2005-06 to 79,196 schools/sections in 2014-15 and further to 86,173 schools/sections in 2019-20 and 86,350 schools in 2020-21 for which UDISE data is latest available. The percentage of elementary to total schools/sections stands at 92.39 percent in 2020-21. Compared to 2005-06, elementary schools increased by more than 1.61 times.

As far as the total schools imparting school education consisting of Grades 1 to 12 covered under the UDISE+ is concerned, the same, unlike other states, has shown consistently improved coverage in Bihar. In the states like Madhya Pradesh, Uttar Pradesh, Odisha, and a few others, the schools run by the Department of Education covered under the UDISE+ in the recent past

have significantly declined, which may be because of the merging and de-merging or even closing down of schools opposite to which the number of Private Unaided schools covered under UDISE+ has increased from 3,26,228 schools in 2018-19 to 3,37,499 schools in 2019-20 and further to 3,40,753 schools in 2020-21.

Not only has the coverage in terms of the number of schools under the government management increased in Bihar, but at the same time, the private unaided schools have also increased from 5,647 in 2017-18 to 7,923 schools in 2020-21. Another important point is that the percentage of schools run by the Government in Bihar is considerably high, even higher than the same at the all-India level. In many states, the number of unaided schools has significantly increased, which is resulted in the percentage of government schools, which has consistently declined over a period of time. At the national level, the share of government schools covered under UDISE+ has declined from 54.17 percent in 2015-16 to 51.79 percent in 2020-21.

A glance at a state-specific number of schools during 2017-18 to 2020-21 reveals that amongst the major states, barring a few, Bihar is the only state which has shown a consistent increase in the number of schools if the total schools covered during 2020-21 is compared with the same in the year 2017-18 (Table 2). As many as 5,226 new schools were added, which is 5.92 percent of the total schools in 2017-18 in Bihar.

On the other hand, at the all-India level total number of schools during the same period declined by 49,767 schools which is 3.19 percent of the total schools in 2017-18. In a few states, the decline in the number of schools during the same period is significant and high; however, the highest drop of 20,322 schools is observed in Madhya Pradesh (13.23 percent) which is followed by 18,375 schools (6.67 percent) in Uttar Pradesh, 5,024 schools (7.26 percent) in Odisha, 4,875 schools (6.96 percent), and 4,211 schools (8.50 percent) in Jharkhand (Table 2). Madhya Pradesh too has the highest decline in the number of schools in terms of percentage also, which shows that every 13th out of 100 schools in 2017-18 could not be covered under UDISE+ in 2020-21; however, the reasons for the steep decline in coverage has not been specified in UDISE+ Booklet brought out by the Ministry of Education.

Further, the decline in the number of schools is reflected in the schools managed by the Department of Education, which has declined by 35,454 schools (4.34 percent) between 2017-18 to 2020-21, which is considered huge if the total number of schools were as high as 8,17,038 schools at the all-India level in 2017-18. Incidentally, the year 2017-18 was the last year up to which the UDISE was managed by the academicians at NIEPA, New Delhi. However, the number of schools under the Department of Education management increased by 2,001 schools (2.74 percent) in 2020-21, if the same compared with similar schools in 2017-18.

A glance at Table 1 further reveals that during 2018-19 and 2019-20, the total number of schools covered under UDISE+ in India under the Department of Education management declined by 50,382 schools, contrary to which the private unaided schools consistently increased from 2,58,107 in 2012-13 to 3,40,753 schools in the year 2020-21. On the other hand, during the

period 2018-19 to 2019-20, private unaided schools increased by 11,271 schools which is 22.38 percent of to total schools covered in 2018-19. It may be observed that the year 2012-13 was the first year of the unification of UDISE, during which, by using a single Data Capture Format, data from all the schools consisting of Grades 1 to 12 was collected for the first time.

The Number of Schools in Bihar

Historically school education in Bihar is dominated by the Department of Education, and the percentage of such schools always remained above 80 percent all through the period 2012-13 to 2020-21. However, the percentage was as high as 96.88 percent in 2012-13, during which not a single private recognized or unrecognized school was covered under UDISE; perhaps the state at that time was still confined only to schools managed by government management. However, after that, the number of unaided schools covered under the UDISE in the state started covering, and the same was as high as 7,923 in the latest year, 2020-21, which is 8.48 percent of the total schools that impart school education in India.

In absolute and percentage terms, the total number of unaided schools in Bihar is much lower than the same in most of the other major states. In addition to the unaided schools, Bihar has covered a total of 7,356 unrecognized schools, which is 7.87 percent of the total schools of Bihar. Both recognized and unrecognized (unaided) schools are the tune of 15,279 schools, which is 16.35 percent of the total 93,459 schools in Bihar in 2020-21.

Table 1: Growth of Schools (Total) in Bihar & India: 2012-13 to 2020-21

Year	Total Schools, Bihar	Change over Previous Year	Total Department of Education Schools, Bihar	Change over Previous Year	%ge Department of Education to Total Schools	Total Schools, India	Change Over Previous Year	Total Department of Education Schools, India	Change over Previous Year	%ge Department of Education to Total Schools
2012-13	75384	-	73032	-	96.88	1500765	-	763837	-	50.90
2013-14	80520	5136	70540	-2492	87.61	1518160	17395	772897	9060	50.91
2014-15	83182	2662	74164	3624	89.16	1516892	-1268	800622	27725	52.78
2015-16	84236	1054	74550	386	88.50	1522346	5454	824672	24050	54.17
2016-17	84962	726	74765	215	88.00	1535606	13260	822097	-2575	53.54
2017-18	88233	3271	73378	-1387	83.16	1558903	23297	817038	-5059	52.41
2018-19	89224	991	72472	-906	81.22	1551000	-7903	835488	18450	53.87
2019-20	90275	1051	72445	-27	80.25	1507708	-43292	785106	-50382	52.07
2020-21	93459	3184	75387	2942	80.66	1509136	1428	781584	-3522	51.79

Source: UDISE, different years.

It may be recalled that at the all-India level, a total of 36,91,42 private recognized and unrecognized schools were covered in UDISE 2020-21, which is much higher than the same in Bihar (16.35). In other words, of the total private unaided and unrecognized schools, 2.33 and

Table 2: State-wise Number of Schools: 2017-18 to 2020-21

State/UT	2017-18	2018-19	2019-20	2020-21	Change over 2017-18 in 2020-21	%age Change over 2017-18 in 2020-21
A & N Islands	417	414	418	417	0	0.00
Andhra Pradesh	63633	63621	63824	63343	-290	-0.46
Arunachal Pradesh	4061	3793	3666	3675	-386	-9.51
Assam	70078	66324	65907	65203	-4875	-6.96
Bihar	88233	89224	90275	93459	5226	5.92
Chandigarh	225	229	229	230	5	2.22
Chhattisgarh	56184	56274	56303	56494	310	0.55
D & N Haveli & Daman & Diu	489	486	483	479	-10	-2.04
Delhi	5723	5703	5669	5642	-81	-1.42
Goa	1525	1486	1482	1481	-44	-2.89
Gujarat	54141	54581	54629	54444	303	0.56
Haryana	23235	23534	23699	23764	529	2.28
Himachal Pradesh	18295	18212	18185	18145	-150	-0.82
Jammu & Kashmir*	29335	29708	29917	29986	651	2.22
Jharkhand	49530	45908	45596	45319	-4211	-8.50
Karnataka	77076	78233	77166	76905	-171	-0.22
Kerala	17013	16701	16665	16481	-532	-3.13
Lakshadweep	45	45	45	45	0	0.00
Madhya Pradesh	153593	154064	133379	133271	-20322	-13.23
Maharashtra	110315	109942	110229	110114	-201	-0.18
Manipur	4812	4844	4663	4653	-159	-3.30
Meghalaya	14736	14669	14730	14694	-42	-0.29
Mizoram	3919	3913	3924	3925	6	0.15
Nagaland	2839	2752	2758	2719	-120	-4.23
Odisha	69209	68717	67020	64185	-5024	-7.26
Puducherry	733	739	741	741	8	1.09
Punjab	28926	28637	28775	28695	-231	-0.80
Rajasthan	105514	105883	106240	107376	1862	1.76
Sikkim	1300	1290	1277	1263	-37	-2.85
Tamil Nadu	58474	59152	58897	58904	430	0.74
Telangana	42834	42355	42575	42917	83	0.19
Tripura	4928	4945	4940	4934	6	0.12
Uttarakhand	24273	23559	23295	23169	-1104	-4.55
Uttar Pradesh	275286	273235	254352	256911	-18375	-6.67
West Bengal	97974	97828	95755	95153	-2821	-2.88
Total	1558903	1551000	1507708	1509136	-49767	-3.19

*Including Ladakh

Source: UDISE, different years.

25.91 percent, respectively, were covered and located in Bihar. One in four unrecognized schools covered under UDISE+ is situated in Bihar; however, the number of recognized unaided schools is only 2 out of 100 such schools. It may also be observed that the coverage of unrecognized schools under UDISE to total schools at the all-India level is generally considered incomplete, because of which the percentage of such schools in Bihar looks high (Table 3). The unrecognized schools in Bihar have had a total enrolment of 14,88,297, which is 5.69 percent of the total enrolment of Bihar; thus indicating that 6th out of every 100th students in Bihar are enrolled in the unrecognized schools which by any standard is termed very high.

Facility & Other Indicators in Bihar: 2020-21, All Schools

A glance at the facility and other indicators of Bihar presented in Table 4 indicates that the state has made considerable progress and is comfortable with most indicators in 2020-21. However, there are a few, such as Teachers without Professional Qualification, which is as high as 23.79 percent; thus indicating that almost one in every four teachers imparting school education in Bihar is not professionally trained, barring a few states from the North-Eastern, such as Assam is perhaps the highest across the Country.

Table 3: Growth of Private Unaided Schools in Bihar & India: 2012-13 to 2020-21

Year	Total Private Unaided (Recognised) Schools, Bihar	Change over the Previous Year	%age to Total Schools	Total Unrecognised Schools, Bihar	Change over the Previous Year	%age to Total Schools	Total Private Unaided (Recognised) Schools, India	Change over the Previous Year	%age to Total Schools	Total Unrecognised Schools, India	Change over the Previous Year	%ge Unre cogn ised to Total Scho ols
2012-13	775	-	1.03	8		0.01	258107		17.20	26685	-	1.78
2013-14	1550	775	1.92	6990	6982	8.68	255001	-3106	16.80	85481	58796	5.63
2014-15	3284	1734	3.95	4003	-2987	4.81	288164	33163	19.00	24514	-60967	1.62
2015-16	3944	660	4.68	4069	66	4.83	295059	6895	19.38	25901	1387	1.70
2016-17	4381	437	5.16	3996	-73	4.70	303722	8663	19.78	27013	1112	1.76
2017-18	5647	1266	6.40	7170	3174	8.13	322201	18479	20.67	32916	5903	2.11
2018-19	6249	602	7.00	7874	704	8.82	326228	4027	21.03	32366	-550	2.09
2019-20	7630	1381	8.45	7487	-387	8.29	337499	11271	22.38	29600	-2766	1.96
2020-21	7923	293	8.48	7356	-131	7.87	340753	3254	22.58	28389	-1211	1.88

Source: UDISE, different years.

Though the percentage of single-teacher schools in Bihar has declined over time, the state still has about 1 percent of single-teacher schools (4,630 schools). In addition, only 26.24 percent of schools in Bihar have either regular Head Masters/Principals, and a few schools are being

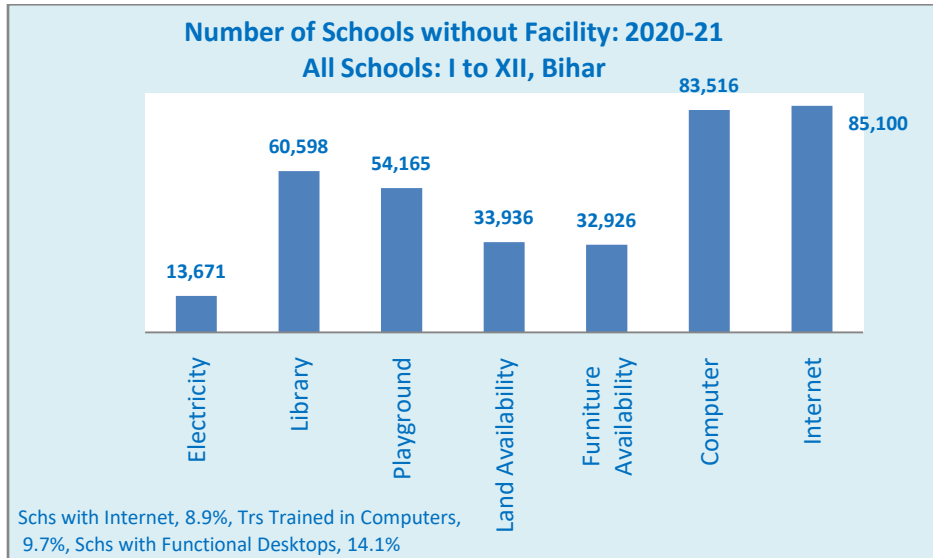
Table 4: School, Teacher & Enrolment Indicators: 2020-21, BIHAR

Schools					
Total Number of Schools, 93,459	% Schools Managed by Government, 80.84	Student-Classroom Ratio, 40.11	% Schools with Classroom, 99.74	% Primary to Total Schools, 45.66 The ratio of Primary to Upper Primary Schools/Sections, 2.0	% Upper Primary to Total Schools, 41.44
% Secondary to Total Schools, 4.14	% Hr. Secondary to Total Schools, 9.06	% Schools having Functional Drinking Water, 99.38 % School with Hand Wash Facility, 85.37	% Elementary Schools having Functional Electricity Connection, 85.37	% Schools with Functional Boys Toilet, 96.05	% Schools with Functional Girls Toilet, 97.64
% Schools with Functional Desktop, 14.09	% Schools with Internet, 8.94	% Schools with Ramp, 70.57 % Schools had Complete Medical Check-up, 23.49	% Schools with Library Facility, 60.61	Schools Without Computers, 83,516	Schools Without Internet, 85,100 Schools Without Electricity Connection, 13,671
Teachers					
Total Teachers, 6,01,519	% Male, 59.9	% Female, 40.1	% Schools Without Female Teachers, 18.63	% Regular Teachers, 95.0	% Non-Regular Teachers, 5.0
% Single Teacher Schools, 0.79 % Schools with HM/Principal/Acting Head Teacher, 26.24	% Total Teachers Above 55 Years, 7.18	% Total Graduate Teachers, 38.79	% Total Post Graduate & Above Teachers, 26.17	% Teachers Without Professional Qualification, 23.79	% Total Teachers Trained in Computer, 9.7
Enrolment					
Total 1 to 12 Enrolment, 2,66,35,416	% Enrolment in Government Schools, 78.37	% Boys Enrolment, 50.94	% Girls Enrolment, 49.06	% Primary to Total Enrolment, 51.54	% Upper Primary to Total Enrolment, 26.39
% Secondary to Total Enrolment, 13.22	% Higher Secondary to Total Enrolment, 7.03	% SC Enrolment, 19.41	% ST Enrolment, 2.57	% OBC Enrolment, 61.97	% Muslim Enrolment, 14.14

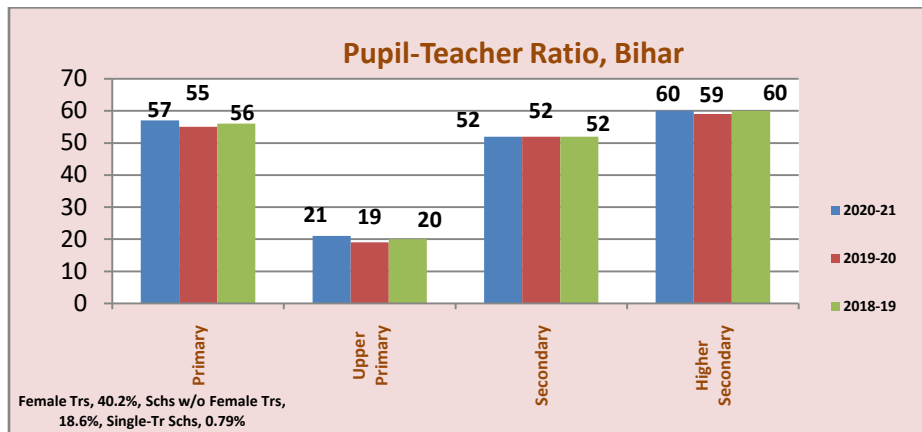
Source: UDISE+ 2020-21

managed by the Head Teacher, all of which need immediate attention. However, 45.22 schools in 2020-21 reported having a separate room for Head Master in Bihar. UDISE+ 2020-21 further reveals that 99.74 percent of schools in Bihar have a classroom, but the same does not

necessarily mean that the number of classrooms is adequate, which is also reflected in the student-classroom ratio, which is reported to be 44; thus meaning that on an average 44 students sit in one classroom which is above the prescribed norms. At one point in time, Bihar used to have a very high student-classroom ratio which has improved now, but in the absence of detailed data, it cannot be said whether the same is true across the school types.



Generally, it is believed that, by and large, schools are adequately available, but in the absence of habitations having got access to primary and upper primary schooling facilities, it cannot be said that the same is available as prescribed by the RTE Act 2009; however the availability of upper primary schools is reflected in the ratio of primary to upper primary schools/sections, which is computed to be 1.98; thus meaning that for every set of two primary schools, there was at least one upper primary school/section in Bihar in 2020-21. The ratio of upper primary to secondary schools is 3.66 as compared to 1.40 for the ratio of secondary to higher secondary schools.



Schools having drinking water facilities, functional boys and girls toilets, and hand wash facilities all improved significantly in Bihar and is also reflected in UDISE+ 2020-21 data, but

the same is not valid for the computer facilities in the schools, which have become essential because of emphasis on education through the technology which was also realized during the recent pandemic.

The availability of computers in school has also become essential because of online reporting in response to a number of programs launched recently, among which the UDISE+ is the prominent one which is said to become an online system from the year 2018-19, which envisages data entry from the schools. However, because of the lack of computer facilities in schools, by and large, UDISE+ data entry could not take place from schools which is true for most of the locations of the Country, including Bihar, which is evident in the number of schools without electricity connection (13,671 schools), schools without Computers (83,516 schools and schools without Internet connection (85,100 schools).

It may further be observed that Bihar had a total of 42,673 primary schools in 2020-21, of which only 1,021 schools have computers which otherwise means that 97.61 percent of primary schools in Bihar did not have a computer in school against which the percentage of such schools without internet connection was 97.46 percent. It is easy to understand the plight of such schools, so far as the UDISE+ data entry is concerned, in view of which either schools run to the nearby cyber café or to the Office of the Block Resource Centre or for such schools, the state, like Bihar had outsourced to the agency (one laptop with operator popularly known as a *man with a machine*) in each block of the state for data entry because of all of which the idea of developing a paperless online system with no date of reference has entirely forfeited, nor the real-time data system could be developed.

Strengthening schools with regard to computer and internet connectivity has become essential in view of revamping SD MIS in sync with UDISE+ from the year 2022-23, under which individual student records on various parameters to the tune of 264 million students (26.64 million total enrolment in Bihar) are envisaged to be collected which may be considered a mammoth exercise. If schools across India are not strengthened, the whole UDISE+ 2022-23 data collection process may be derailed.

Enrolment

Enrolment presented in Table 5 reveals that total enrolment in Grades 1 to12 during the period 2012-13 to 2020-21, both in the case of the all-India and Bihar, is inconsistent even though the consistency of the data over time improved considerably, but questions have always raised on the quality and the consistency of enrolment data given which SD MIS in sync with the UDISE was attempted during the 2016-17 data collection, but for no reason, the same was discontinued the following year. Had SD MIS was not discontinued, India would have developed an online *Student Tracking System* by now. It may be observed that SD MIS is now being revamped from the year 2022-23, in view of which the *Department of School Education & Literacy* has recently

released a modified *Data Capture Format* of UDISE+ 2022-23 through which student data is envisaged to be collected as of 30th September 2022.

It may be recalled that 2012-13 is the year during which a single Data Capture Format was used for the first time to collect data from all schools consisting of Grades 1 to 12; UDISE has since then been known as Unified-DISE. The year 2012-13 is also important because it is the year during which UDISE data got the status of the *Official Statistics* because of which enrolment data in the present write-up is presented for the period starting 2012-13 to 2020-21; up to the year for which UDISE+ data is latest available.

Table 5: Total Enrolment in Grades 1 to 12, India & Bihar, 2012-13 to 2020-21

Year	Enrolment, ALL INDIA			Enrolment, BIHAR			%age of Bihar to Total India Enrolment
	Total, Grades I to XII	Change over Previous Year	%age Change	Total, Grades I to XII	Change over Previous Year	%age Change	
2012-13	25,42,75,128	-	-	2,23,23,956	-	-	8.78
2013-14	25,85,10,656	42,35,528	1.67	2,46,99,855	23,75,899	10.64	9.55
2014-15	25,94,70,306	9,59,650	0.37	2,62,52,799	15,52,944	6.29	10.12
2015-16	26,05,96,960	11,26,654	0.43	2,80,89,637	18,36,838	7.00	10.78
2016-17	25,13,36,317	-92,60,643	-3.55	2,60,68,985	-20,20,652	-7.19	10.37
2017-18	25,09,89,193	-3,47,124	-0.14	2,51,82,414	-8,86,571	-3.40	10.03
2018-19	24,83,38,584	-26,50,609	-1.06	2,43,16,109	-8,66,305	-3.44	9.79
2019-20	25,09,71,683	26,33,099	1.06	2,46,75,490	3,59,381	1.48	9.83
2020-21	25,38,04,461	28,32,778	1.13	2,61,47,944	14,72,454	5.97	10.30
Change over 2012-13		-4,70,667	-0.19	-	38,23,988	17.13	-

Source: UDISE, different years.

Total Enrolment: Grades 1 to 12, All-India & Bihar

A Glance at Table 5 reveals that Bihar has a total of 26.15 million enrolment in its 1 to 12 classes in 2020-21, which is 10.30 percent of the total enrolment of the Country; otherwise, it also means that every tenth student is located in Bihar because of which Bihar is very important for India to move towards achieving the goal of universal school enrolment thus meaning that all children of the age group 6 to 17 years are enrolled in the corresponding levels of education. It may also be observed that the percentage of schools located in Bihar (6.19 percent) is lower than its share in enrolment. On the other hand, as has already been specified above, about 12 percent of the 6 to 14 years children of the Country are located in Bihar, thus reaffirming the importance of Bihar in India's resolve to attain a hundred percent GER at school education by the year 2030.

Table 5 further reveals that compared to the total enrolment of Bihar in 2020-21, the same increased by 38,23,988, which is 17.13 percent more than the same in 2012-13; the first year of the unification compared to which enrolment at the all-India level declined by 0.19 percent during the same period. A close look at enrolment between the years 2012-13 to 2020-21 would further reveal ups and downs all through the period, with the steepest decline in the year 2016-17, which is valid for both Bihar as well as for enrolment at the all-India level. Total enrolment in 2016-17 declined by 9.26 million (-3.55 percent) at the all-India level compared to the enrolment of Bihar declined by 2.02 million, which is 7.19 percent of the total enrolment in the previous year. The decline in enrolment in 2016-17 is the highest, all from 2012-13 to 2020-21, which is valid for the decrease in enrolment at the all-India and Bihar.

Why has enrolment suddenly decreased in 2016-17? Was it because of the initiative of student data collection launched in 2016-17? Like enrolment, the percent share of Bihar enrolment to total enrolment is also observed to be erratic; from a low 8.79 percent in 2012-13, it increased to 10.78 percent in 2015-16 but consistently declined up to the year 2018-19 (9.79 percent) but again increased to 9.83 percent in 2019-20 and further to 10.30 percent in 2020-21. The decline may not be attributed to a reduction in the total schools as the same increased from 75,384 schools in 2012-13 to 93,459 schools in 2020-21; thus showing an increase of 18,075 schools, 23.98 percent of the total schools in 2012-13. Is the decline in enrolment because of the decrease in child population; it may not be a valid cause for the decrease as the enrolment again started increasing in 2019-20. In 2020-21, total enrolment of Bihar further increased to 1.47 million or 5.97 percent over the previous year, i.e., 2019-20. Alternatively, the decline in enrolment may be attributed to errors in the measurement?; a separate study covering all the aspects of management and organization of UDISE+ may be launched by the state authorities.

Level-specific Enrolment

To further examine the pattern of decline, enrolment at different stages of school education from 2012-13 to 2020-21 has also been examined, and the same is presented in Tables 6 to 9. The disaggregated enrolment is expected to show whether the decline is confined to only one level of education or spread across stages.

A glance at the enrolment at different levels of education during the period 2012-13 to 2020-21 reveals that barring enrolment at the higher education level, enrolment at primary, upper primary, and secondary levels declined in 2016-17, 2017-18, and 2018-19; however the same barring primary level of education again started increasing after that. Even higher secondary enrolment declined for the first time in 2016-17.

As has already been discussed above that the year 2016-17 saw a steep reduction in total enrolment in Grades 1 to 12, which is also true separately for other levels of school education. It is observed that barring the secondary level, the remaining levels of school education had the highest decline in enrolment, which is valid for both in absolute and in percentage form.

Within the elementary level, also it was the year 2016-17, during which enrolment at the upper primary level of education could see the decline for the first time. Within the year 2016-17, the highest decline of enrolment in Bihar is observed in the case of primary level 14,41,003 (-8.91 percent), followed by Higher Secondary level (2,35,810, -19.07 percent) and Secondary level (72,521, -2.12 percent).

**Table 6: Enrolment at Primary Level
Bihar, 2012-13 to 2020-21**

Year	Primary Level, Grades 1 to 5	Change over the Previous Year	%age Change
2012-13	14031263	-	-
2013-14	15020755	989492	7.05
2014-15	15340469	319714	2.13
2015-16	16170088	829619	5.41
2016-17	14729085	-1441003	-8.91
2017-18	14058713	-670372	-4.55
2018-19	13095697	-963016	-6.85
2019-20	13075193	-20504	-0.16
2020-21	13728283	653090	4.99
Change over 2012-13		-302980	-2.16

Source: UDISE, different years.

Enrolment at the primary level of education is essential for other levels of education to grow, but the same consistently declined during 2016-17 to 2019-20 but increased the following year. The reduction in primary enrolment during 2016-17 to 2019-20 was 3.09 million, which is considered huge, but in the following year, i.e., 2020-21, it again increased by 6,53,090.

The sudden increase and decline in enrolment in general and primary enrolment cannot be attributed alone to the decline in the child population, which raises serious questions about the reliability of enrolment data during the period 2016-17 to 2020-21. Despite knowing the erratic and steep decline in enrolment, the state government has not taken it seriously and taken any corrective measures. Without further delay, the state government may like to launch independent studies to know the reasons for the decline, which is valid for all levels of school education and has severe implications for one of the mega ongoing programs of the Government of India, namely *Samagra Shiksha*.

Given erratic enrolment, especially at the Primary level of education, the corresponding enrolment ratio is of little use. It does not give any direction to use in the annual exercise of plan formulation, which is reflected in enrolment ratios presented in Table 11.

**Table 7: Enrolment at Upper Primary Level
Bihar, 2012-13 to 2020-21**

Year	Upper Primary: Grades 6 to 8	Change over the Previous Year	%age Change
2012-13	5261688		
2013-14	6218202	956514	18.18
2014-15	6792648	574446	9.24
2015-16	7261697	469049	6.91
2016-17	6990379	-271318	-3.74
2017-18	6774029	-216350	-3.09
2018-19	6636971	-137058	-2.02
2019-20	6698518	61547	0.93
2020-21	7028016	329498	4.92
Change over 2012-13		17,66,328	33.57

Source: UDISE, different years.

School Going Population: Bihar

To further understand the participation of children in an educational program, a variety of enrolment ratios, such as gross and net enrolment ratios, adjusted net enrolment, and age-specific enrolment ratios, have been presented in Table 11 respectively at primary, upper primary,

**Table 8: Enrolment at Elementary Level
Bihar, 2012-13 to 2020-21**

Year	Elementary Level: Grades 1 to 8	Change over the Previous Year	%age Change
2012-13	19292951		
2013-14	21238957	1946006	10.09
2014-15	22133117	894160	4.21
2015-16	23431785	1298668	5.87
2016-17	21719464	-1712321	-7.31
2017-18	20832742	-886722	-4.08
2018-19	19732668	-1100074	-5.28
2019-20	19773711	41043	0.21
2020-21	20756299	982588	4.97
Change over 2012-13		14,63,348	7.58

Source: UDISE, different years.

and elementary, secondary, and higher secondary levels of education. At the same time, it is equally important to understand the size of the school-age population, which is presented below in Table 10, which reveals that Bihar has a total of 33.41 million population of age group 6 to 17

years, of which 22.36 million alone are of the elementary school going age population, i.e., 6 to 13-year which is 66.93 percent of the total 6 to 17 population.

**Table 9: Enrolment at Secondary & Higher Secondary Level
Bihar, 2012-13 to 2020-21**

Year	Secondary	Change over the Previous Year	%age Change	Hr. Secondary	Change over the Previous Year	%age Change
2012-13	2427855			603150		
2013-14	2662546	234691	9.67	798352	195202	32.36
2014-15	3038169	375623	14.11	1081513	283161	35.47
2015-16	3421427	383258	12.61	1236425	154912	14.32
2016-17	3348906	-72521	-2.12	1000615	-235810	-19.07
2017-18	3254126	-94780	-2.83	1095546	94931	9.49
2018-19	3161078	-93048	-2.86	1422363	326817	29.83
2019-20	3224336	63258	2.00	1677443	255080	17.93
2020-21	3519971	295635	9.17	1871674	194231	11.58
Change over 2012-13		1092116	44.98		1268524	210.32

Source: UDISE, different years.

The bifurcation of the elementary age population further reveals that 13.91 million are in the primary school age group (62.21 percent) and the balance, 8.45 million (37.79 percent), upper primary school age population. As has already been presented, the entire Country's total elementary school-age population in 2020-21 was 18,95,92,600, of which 2,23,59,400 alone is located in the state of Bihar, which indicates that every 12th of the hundred elementary school-age children are located in the state of Bihar. This reemphasized the importance of Bihar that without it achieving the goal of universal school education, India too cannot move towards achieving the goal of universal school education.

Table 10: Age-specific Child Population and Enrolment: 2020-21, BIHAR

Gender	Age-specific Population					
	6 to11	11 to13	6 to 13	14 to 15	16-17	Total 6 to 17
Boys	7255200	4308200	11563400	2854400	2858400	17276200
Girls	6655400	4140000	10795400	2687400	2645400	16128200
Total	13911800	8447600	22359400	5542600	5503600	33405600

Source: Ministry of Health & Family Welfare, Report of the Expert Group on Population Projections: 2011 to 2036 (June 2020), as reported in UDISE+ 2020-21 Booklet, Department of School Education & Literacy, Ministry of Education.

Enrolment Ratio

The enrolment ratio at the primary level of education presented in Table 11 indicates that Bihar has already achieved the goal of universal primary enrolment in the year 2013-14 as NER, Adjusted-NER, and Age-specific enrolment ratios are reported hundred, and the state had maintained its position also during the years, 2014-15 and 2015-16. However, after 2015-16 enrolment ratios indicated a declining trend during 2016-17 to 2019-20 but again increased in 2020-21. Because of the inconsistent data, as has already been mentioned, it is not an easy task to ascertain the trend in school enrolment in Bihar, which is also true for the enrolment ratio.

In 2020-21 for which the UDISE data is the latest available, it indicates that 96.82 percent of children of age group 6-10 years were enrolled, which otherwise also suggests that only 3.18 percent of children were not enrolled in any class which can be termed as out of schools, never enrolled or dropped out children. These 96.82 percent of children are not necessarily enrolled in the corresponding primary classes, i.e., Grades 1 to 5, as age-specific enrolment considers total enrolment irrespective of Grade and the level of education. If this is the situation, with a little push, the remaining 3.18 percent of 13.91 million children can be brought to the education system, which in absolute terms comes out to be 442 thousand for which all currently out-of-school children will be required to be identified and provided with special education to make them sit after the training in the age-appropriate Grade.

The provisional data of Bihar for the year 2021-22 suggest that the state has identified 2,94,193 students, provided them with special training, and mainstreamed them in the age-appropriate class. What about the remaining children? Is the difference because of the projected population, or are they presently enrolled in higher classes for which we need to examine enrolment ratios at the other levels, including the upper primary level of education?

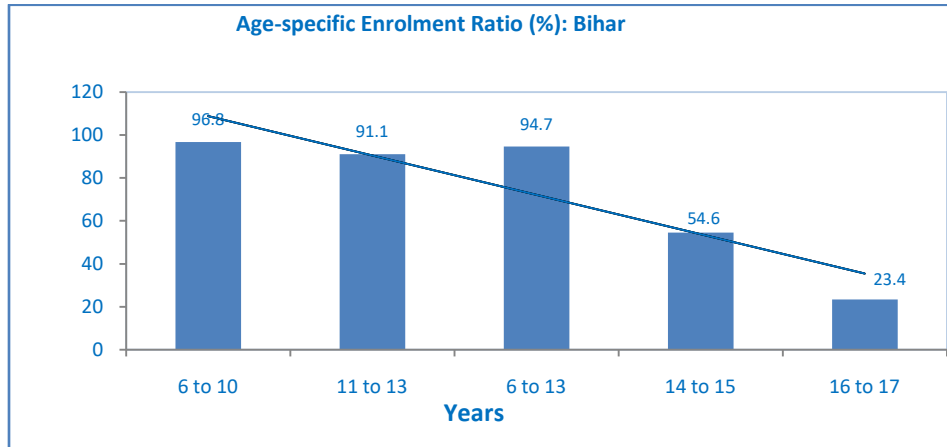
Table 11: Enrolment Ratio at Primary Level: Bihar, 2012-13 to 2020-21

Year	GER	NER	Adj-NER	ASER: 6-10 Years
2020-21	98.69	93.91	96.82	96.82
2019-20	93.49	88.17	91.05	91.05
2018-19	93.13	88.23	90.84	90.84
2017-18	99.44	90.70	92.51	92.51
2016-17	103.63	97.01	98.22	98.22
2015-16	113.94	100.00	100.00	100.00
2014-15	108.26	100.00	100.00	100.00
2013-14	106.17	99.58	100.00	100.00
2012-13	99.33	93.39	94.46	94.46

Source: UDISE, different years.

a. Primary Level

The Enrolment Ratio at the Primary level in Bihar in the year 2020-21 further indicates a net enrolment ratio of 93.91, all of which suggest that the majority of children of age 6 to 10 years are enrolled in the corresponding 1 to 5 classes; however, a few children of this age group are also observed to be enrolled in upper primary classes which are reflected in adjusted net enrolment ratio which is observed to be 96.82 percent. The net enrolment ratio of 93.91 percent at the primary level suggests that a little above 6 percent of children of the 6 to 10 age group were not enrolled in 1 to 5 classes which does not mean that all the remaining children are out of school as a few of them of this age are also enrolled in one higher level, i.e., upper primary level. The enrolment ratio at the primary level further reveals that the Net, as well as Adjusted Net Enrolment Ratio of Bihar in the years 2014-15 and 2015-16, was hundred; thus meaning that the entire population of 6 to 11 years was enrolled in the corresponding Grades 1 to 5. Let us now examine the enrolment ratio at other levels of school education in Bihar, which is presented in Tables 12 to 14.



b. Upper Primary Level

The enrolment ratios of Bihar at the Upper primary level indicate that in 2020-21 only 75.37 percent of children aged 11 to 13 years were enrolled in the corresponding 6 to 8 classes; however, UDISE+ 2020-21 reported 87.99 percent of the adjusted-NER which means that 12.01 percent children were not enrolled in 6 to 8 grades which also does not necessarily mean that all the remaining 8 percent children are out of school as a few children of 11 to 13 years might also be enrolled in lower classes; which is considered in the age-specific enrolment ratio which comes out to be 91.10 percent in 2020-21.

A 91.10 percent age-specific enrolment ratio indicates that about 9 percent of children of 11 to 13 years were not enrolled in any class in Bihar, which comes out to be 754 thousand children together with 442 thousand out-of-school children of 6 to 10 years, indicating a total of 1,194 thousand out of school children of 6 to 13 years age group which is also reflected in the age-

specific enrolment ratio of 6 to 13 years presented in Table 13. Further, a glance at the upper primary level net enrolment ratio indicates that the same as other levels of education is observed to be the highest at 77.77 percent in 2015-16 but in the following year declined to 74.20 percent.

Table 12: Enrolment Ratio at Upper Primary Level: Bihar, 2012-13 to 2020-21

Year	GER	NER	Adj-NER	ASER: 11-13 Years
2020-21	83.19	75.37	87.99	91.10
2019-20	79.19	71.11	82.86	87.00
2018-19	78.37	71.02	84.09	88.20
2017-18	79.89	70.22	78.37	87.77
2016-17	82.35	74.20	82.69	90.81
2015-16	86.61	77.77	88.05	97.45
2014-15	82.03	73.31	82.73	93.16
2013-14	76.06	68.95	77.32	85.97
2012-13	65.19	59.30	67.21	74.95

Source: UDISE, different years.

c. Elementary Level

A glance at Table 13 indicates that Bihar had achieved the goal of universal elementary enrolment in the year 2015-16 as both the net as well as age-specific enrolment ratio was hundred percent with a girls ratio of 100 and boys 97.36 percent; do not know how the overall elementary enrolment ratio is reported 100? Further, it is essential to observe that the girls' enrolment ratio is higher than their counterpart boys, which is valid for all the levels of school education, including secondary and higher secondary levels, as well as for the entire period from 2012-13 to 2020-21.

Table 13: Enrolment Ratio at Elementary Level: Bihar, 2012-13 to 2020-21

Year	GER	NER	Adj-NER	ASER: 6-13 Years
2020-21	92.83	89.89	94.66	94.66
2019-20	88.10	85.09	89.52	89.52
2018-19	87.58	84.94	89.85	89.85
2017-18	92.11	87.68	90.73	90.73
2016-17	95.67	92.27	95.45	95.45
2015-16	103.79	100.00	100.00	100.00
2014-15	98.59	94.91	98.39	98.39
2013-14	95.14	92.19	95.26	95.26
2012-13	86.91	84.49	87.37	87.37

Source: UDISE, different years.

In the latest year, 2020-21, the boy's and girls' enrolment ratios at the elementary level were respectively 88.42 and 91.47 percent which suggests that a lot more effort is required for all

currently enrolled children of 6 to 13 years to retain in the system. To further know the participation of children of the remaining age group, i.e., 14-15 and 16-17 below, we also analyze a variety of enrolment ratios both at the secondary and higher levels of education.

d. Secondary & Higher Secondary Level

A glance at the enrolment ratio at the secondary and higher secondary level of education, one would get the impression that Bihar is far behind other states concerning universal secondary education as the highest-ever gross enrolment ratio that the state ever could attain was 64.85 percent in 2015-16 (Boys, 68.16 percent & Girls, 61.87 percent). The same at the higher secondary is even further low at 23.36 percent in 2020-21, which is incidentally the highest during 2012-13 to 2020-21. As it seems, India is far from attaining the status of universal secondary education. On the other hand, the age-specific enrolment ratio of ages 14-15 years in 2020-21 is 54.60 percent which otherwise means that about 45.40 percent of children of this age group in Bihar are currently not enrolled in any class; they will be treated as never enrolled, dropped out or a few of them may even be enrolled in the lower level, i.e., elementary classes.

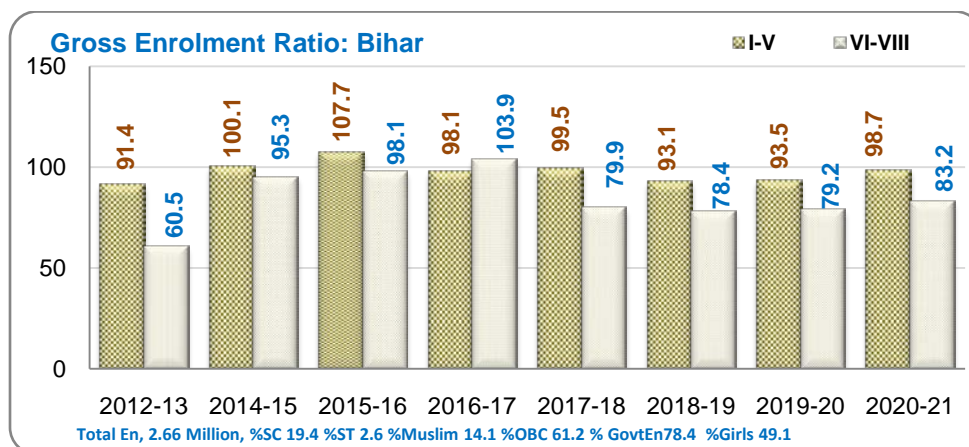


Table 14: Enrolment Ratio at Secondary Level: Bihar, 2012-13 to 2020-21

Year	GER	NER	Adj- NER	ASER: 14 -15 Years
2020-21	63.52	38.62	50.25	54.60
2019-20	58.50	34.70	45.12	50.03
2018-19	57.67	32.54	42.82	47.28
2017-18	59.70	39.15	45.61	55.64
2016-17	61.78	39.50	43.94	53.36
2015-16	64.85	40.23	46.74	57.39
2014-15	59.22	36.33	39.20	50.30
2013-14	53.41	32.68	34.66	43.10
2012-13	50.16	30.19	32.21	38.75

Source: UDISE, different years.

Further, it may be observed that despite a higher enrolment ratio at the primary and upper primary levels of education, the same at secondary and higher secondary levels of education is relatively low. This indicates that just enrolling children will not serve the purpose until they are retained in the system; therefore, enrolling all the children is a necessary condition but not sufficient to achieve the goal of universal school enrolment. The sufficient condition is to ensure that every child entering the system must transition from one class to another, complete a level of education successfully, and then transit to the first class of the next level of education. Given this, in the next section, we discuss a variety of indicators that describe the retaining capacity of the system.

Table 15: Enrolment Ratio at Higher Secondary Level: Bihar, 2012-13 to 2020-21

Year	GER	NER	Adjusted- NER	ASER: 16-17 Years
2020-21	34.01	17.81	17.81	23.36
2019-20	30.80	15.95	15.95	21.68
2018-19	26.39	12.82	12.82	17.64
2017-18	20.55	11.08	11.08	19.11
2016-17	18.97	11.12	11.12	20.15
2015-16	24.46	14.05	14.05	22.37
2014-15	22.38	14.02	14.02	21.93
2013-14	17.31	10.59	10.59	17.81
2012-13	13.73	8.43	8.43	15.42

Source: UDISE, different years.

Flow Rates

To know the retaining capacity of the system below, we analyze grade-to-grade dropout, transition, and completion rates in Bihar for the recent year, and the same is presented in Table 16. Bihar reported a ZERO dropout rate for the Cohort 2019-20 at the primary level, which is separately true for boys and girls. In 2017-18, the dropout rate at the primary level was 4.45 percent, which declined to 2.8 percent the following year. The state may like to share its experience as to how it could bring down the dropout rate to ZERO in 2020-21 and efforts made to tackle the same as it would be of immense help to other states having an incidence of high dropout rates at this level of education.

The flow rates presented in this article are downloaded from the official portal of UDISE+; it is not mentioned whether the rates computed are based on all schools or common schools. It may be recalled that grade-specific enrolment for two consecutive years and grade-specific number of repeaters are required for the latest year to compute grade-to-grade dropout and average annual dropout rate. It is essential to consider common schools in both years; the latest year enrolment data might be based on more schools, as the schools not covered during the previous year are also covered in the current year. The UDISE+ in Bihar covered 84,459 schools in 2020-21, more

than 3,184 new schools (3.53 percent) than covered during the previous year, which should not be considered in the dropout computation. If considered all schools, the dropout rate received is likely to underestimate the actual dropout rate.

Table 16: Dropout Rate, Bihar

Cohort	Primary Level			Upper Primary Level			Secondary Level		
	Girls	Boys	Overall	Girls	Boys	Overall	Girls	Boys	Overall
2019-20	0.00	0.00	0.00	3.39	2.13	2.78	18.96	16.30	17.64
2018-19	1.52	3.01	2.28	9.24	8.61	8.93	22.66	20.01	21.36
2017-18	4.30	4.59	4.45	5.14	4.26	4.68	17.05	18.68	17.90

Source: UDISE, different years.

Before we look at the grade-wise enrolment of Bihar for the years 2019-20 and 2020-21 and repeaters of 2020-21, let us first view the dropout rate at other levels of education.

Compared to the ZERO dropout rate for Cohort 2019-20 at the primary level, the same at the upper primary level is 2.78 percent; however, at the secondary level of education, the dropout rate is exorbitantly high at 17.64 percent; thus indicating that about 18 percent students those who were admitted in 2019-20, could not retain and dropped out before completion of secondary level of education which is considered high and has grave implication for Bihar to attain the goal of universal secondary enrolment which as has already been specified above that it also has far-reaching implications for India to achieve the goal of 100 percent GER by the year 2030.

**Table 17
Grade-specific Enrolment & Repeaters, BIHAR: 2019-20 & 2020-21**

Classes	Enrolment		Number of			Flow Rates			
	2019-20	2020-21	Repeaters	Promotes	Dropouts	Repetition	Promotion	Dropout	Total
I	2551956	2708517	3212	2705305	-338255	0.13	113.13	-13.25	100
II	2564873	2890154	3155	2886999	-249196	0.12	109.59	-9.72	100
III	2461379	2814004	3090	2810914	-155289	0.13	106.18	-6.31	100
IV	2601198	2616369	2791	2613578	-98046	0.11	103.66	-3.77	100
V	2895787	2699239	2786	2696453	579201	0.10	79.90	20.00	100
VI	2271982	2316239	2439	2313800	-82001	0.11	103.50	-3.61	100
VII	2280794	2353924	2380	2351544	-77293	0.10	103.28	-3.39	100
VIII	2145742	2357853	2146	2355707	345088	0.10	83.82	16.08	100
IX	1618243	1800928	2420	1798508	-99885	0.15	106.02	-6.17	100
X	1606093	1719043	3335	1715708	668615	0.21	58.16	41.63	100
XI	880399	937311	3168	934143	-52747	0.36	105.63	-5.99	100
XII	797044	934363	4385	929978	792659	0.55	-	-	-
Average Annual Dropout Rate			Primary Level	-2.00	Upper Primary		2.77	Secondary	17.64

Source: Calculated based on UDISE data, different years.

However, it has also been observed that both at the upper primary and secondary levels of education, the dropout rate for the Cohort 2019-20 has declined compared to the same in the previous year. It may be recalled that the enrolment ratio, irrespective of the year, was observed to be higher in the case of boys than in their counterparts boys. However, both together further

reveals that as many as 2,34,843 and 9,77,715 students, respectively, dropped out from the system respectively at the primary and upper primary level of education in Bihar.

Dropout Rate based on all or Common Schools

The calculation of grade-specific flow rates based on 2019-20 and 2020-21 enrolment and 2020-21 repeaters is demonstrated in Table 17, which shows that the same is computed based on highly inconsistent data, which is primarily because of consideration of all schools instead of common schools; this is disappointed to observe that despite there been efforts made to improve the quality of data, still, enrolment is not free from inconsistency because of which flow rates in India cannot be termed as presenting the accurate picture of retaining capacity of the system. For example, the promotion rate in Grades 1, 2, 3, 4, 6, 9, and 10 in Bihar is more than 100, which means that more students in these grades than in the previous Grade in the previous year because of this grade-to-grade dropout rate obtained in these grades is negative which is theoretical, not possible.

Based on the above data, an attempt has also been made to compute the average annual dropout rate at primary, upper primary, and secondary levels of education (like UDISE+); in the case of the primary level of education, it comes out to be -2.00 which is reported to be ZERO by UDISE+ 2020-21 for Bihar. On the other hand, the dropout rate at upper primary and secondary levels comes out to be 2.77 and 17.64 percent, which is precisely reported in UDISE+ 2020-21.

As it seems, wherever the dropout rate is negative, the same in UIDSE+ is reported to be zero, which confines not only to Bihar but across all States & UTs of the Country; thus, not only the dropout but also the transition and retention rates across states do not present the accurate picture. In the case of 11 states at the primary and 12 states out of 37 States & UTs at the upper primary level, the UDISE+ 2020-21 reported an average annual dropout rate of ZERO, all of which, in fact, is negative. Since the dropout rates are not based on the common schools, as explained above, the rest of the states also underestimate the actual dropout rates. Similarly, eight states have reported a 100 percent transition rate from primary to upper primary and 12 states from upper primary to secondary level, all of which, in fact, is above 100, which is also theoretically impossible.

The UIDSE+ authorities may like to switch over to the previous methodology adopted during 2005-06 to 2017-18 and, in the future, must compute and present flow rates based on common schools. In addition, they must re-compute the same during the years 2018-19 to 2020-21 and replace the same with the current rates so that the same can be used in the annual work plan formulation under ongoing *Samagra Shiksha Abhiyan* as the current rates present the misleading picture. It is strange how targets on dropout, transition, and retention rates are currently being fixed and how the implementing authorities monitor the progress of the same.

Further, the grade-specific dropout rate indicates a very high rate in the case of Grades V (20 percent), Grade VIII (16 percent), and Grade X (42 percent), all of which has serious implication on universal enrolment and need intervention.

Transition & Retention Rates

The Transition and Retention rates presented in Tables 18 and 19 suggest that in addition to dropout in between the grades, a good number of students also drop out from the system between one level to another level of education. Like dropout rates, the UDISE+ transition rates are also supposed to overestimate the actual rate because of not considering common schools. The transition rate from primary to upper primary level in the latest year is reported to be 79.90 percent; however, the same in the case of Scheduled Castes and Scheduled Tribes students is lower at 73.85 and 74.71 percent, which is significantly lower than in the case of transition rate for students from the general community.

Transition Rate

A transition rate of 80 percent means that about 20 percent of students who reached Grade V last year could not transit to the first Grade of the next stage, i.e., Upper Primary level next year, which is in addition to students who dropped out from the system before reaching Grade V. It may be recalled that enrolment in Grade V in 2019-20 in Bihar was 28,95,787 of which only 23,13,800 students could only transit to Grade VI next year which otherwise also means that 5,81,987 students dropped out from the system after reaching Grade V; thus affecting to a great extent to efforts being made towards universalization of elementary education.

Table 18
Transition Rate, Bihar

Year	Social Category	Primary to Upper Primary (5 to 6)			Elementary to Secondary (8 to 9)			Secondary to Higher Secondary (10 to 11)		
		Girls	Boys	Overall	Girls	Boys	Overall	Girls	Boys	Overall
2019-20	General	83.43	84.39	83.92	89.05	90.41	89.73	64.33	69.13	66.71
	SC	74.31	73.41	73.85	79.49	79.19	79.34	53.64	56.10	54.87
	ST	75.14	74.29	74.71	97.05	98.83	97.92	62.10	64.70	63.35
	OBC	81.13	81.25	81.19	81.80	84.47	83.10	54.54	58.37	56.43
	Total	79.91	79.89	79.90	82.87	84.80	83.82	56.32	60.05	58.16
2018-19	General	81.29	80.34	80.81	82.85	85.80	84.30	65.60	71.07	68.28
	SC	76.62	74.26	75.43	71.04	71.85	71.45	50.41	54.22	52.33
	ST	72.23	69.39	70.80	88.88	89.53	89.20	61.94	62.62	62.27
	Total	80.77	77.96	79.37	74.09	76.37	75.20	53.82	57.80	55.80
2017-18	General	83.68	81.39	82.52	80.54	81.63	81.07	61.56	68.72	65.04
	SC	74.11	70.79	72.41	66.87	66.55	66.71	40.64	44.27	42.51
	ST	78.61	73.14	75.80	90.63	89.44	90.05	61.37	62.28	61.81
	Total	78.92	75.76	77.33	71.30	71.77	71.53	43.43	47.99	45.70

Source: UDISE, different years.

A better way to compute the transition rate would be to consider students who have passed Grade V and then transited to Grade VI next year, but data on students who passed is not available. No

improvement in the transition rate from primary to upper primary level is observed as the same in the previous year reported was 79.37 percent. Further, it is observed that the transition rate of SC and ST students is significantly lower than their counterpart students from the general community.

Further, it is interesting to observe that the transition rate from elementary to secondary level (83.82 percent) is significantly higher than the same from primary to upper primary level of education (79.90 percent), which means that about 16 percent of 21,45,742 students in Grade VIII in 2019-20, could not transit to the next Grade in 2020-21, i.e., IX indicating that 3,47,181 students dropped out from the system between Grades VIII and IX. However, the transition rate at the elementary to secondary level during the period 2017-2018 (71.53 percent) to 2019-20 (83.82 percent) shows a consistent improvement.

Table 19: Retention Rate, Bihar

Year	Retention Rate: Bihar											
	Primary (1 to 5)			Elementary (1 to 8)			Secondary (1 to 10)			Higher Secondary (1 to 12)		
	Boys	Girls	Overall	Boys	Girls	Overall	Boys	Girls	Overall	Boys	Girls	Overall
2020-21	100.00	100.00	100.00	72.59	78.23	75.35	50.36	52.34	51.33	24.36	24.78	24.56
2019-20	83.66	86.94	85.27	73.22	78.55	75.84	43.09	46.35	44.68	19.30	18.50	18.91
2018-19	91.13	95.33	93.19	61.34	66.60	63.92	39.30	42.84	41.01			

Source: UDISE, different years.

Retention Rate

One of the other vital indicators which describe the retaining capacity of the system is the retention rate which is calculated in relation to enrolment in Grade I through which students enter into the system and retain up to Grade V or Grade VIII, or Grade X and or Grade XII respectively in 5 or 8 or 10 and or 12 years. The students who could not precisely reach these grades in 5 or 8 or 10 and or 12 years are treated as dropped out from the system; however, a few of them might still be in the system and must be repeating a particular grade.

In retention rate too, not all schools covered in a year; for example, 2020-21 should be considered, but enrolment of Grades 5, 8, 10, or 12 who entered into the system 5/8/10/12 years before and now reached Grade 5/8/10 or 12 (true cohort) should only be considered, but because of the data limitations, it is not possible to compute retention rate by following this methodology. It is hoped that when the student-tracking system in sync with UDISE is fully developed, it will be possible to compute the retention rate based on the true cohort; till such time, the retention will present an overestimation of the actual rate.

The retention rate at the primary level suggests that in Bihar, the same in 2020-21 is reported being 100, which is valid for both boys as well as for girls indicating that all the children who entered the system in Grade I in 2016-17; the system could able to retain all of them till Grade V in 2020-21. In 2020-21, Grade V enrolment (minus repeaters) in Bihar was 26,96,453, and Grade, I enrolment in 2016-17, was 25,39,841, which gives us a retention rate at primary level/Grade V, 106.17, which in the UDISE+ 2020-21 Booklet is reported as 100. In the case of

at least ten states, since the retention rate at the primary level obtained was above hundred, the same is reported to be 100. To avoid such absurd results, the dropout, as well as retention rates, must be computed based on common schools only.

The retention rate at the elementary level/Grade VIII further reveals that 25 out of every 100 students who entered into the system in 2016-17 in Bihar could not be retained up to Grade VIII, against which more than 50 out of every 100 students could not be retained up to Grade X and almost 75 out of every 100 students those entered into the system could not be retained up to Grade XII. These are the overestimated rates as the same is not based on the true cohort method. Bihar needs to overhaul its education system to a great extent to ensure that all children who enter the system must retain and should not leave the system before completion.

Concluding Observations: The Way Forward

With regard to schooling facilities and facilities in the school concerning universal school education, Bihar has made considerable progress. However, the goal of universal enrolment is still a far-distant dream which is reflected in various indicators analyzed in the present article. One of the biggest challenges that the state is still facing is the quality and reliability of its educational data in general and enrolment statistics in particular, which is highly inconsistent. The sudden ups and downs in enrolment make it challenging to ascertain enrolment trends, particularly at the primary and upper primary levels of education. Because of this, various enrolment ratios analyzed in the present article have become irrelevant to judge the status of school education in India.

Another set of indicators that have been analyzed falls under the category of flow rates that describe the retaining capacity of the system, which is based on all schools in a year rather than based on the common schools as has been decided by the national authorities responsible for management and organization of UDISE+ because of which the flow rates such as dropout, promotion, and repetition rates as well as transition and retentions rates at a different level of school education presents misleading results not only in Bihar but across the Country irrespective of states.

Because of the faulty methodological decision at the National level, the dropout rates obtained in several states are zero, and the transition and retention rate above 100, which is theoretical, is impossible. Slowly but surely, the time lag in educational statistics is again on the rise because of which the annual school education plans are not based on the current year's data as has been the practice up to 2017-18.

UDISE+ from 2018-19 is said to be online, but because only a few states having got access to computers/laptops with internet connectivity, like other states, the data entry is not taken place from the school; thus forfeiting the primary purpose of developing an online system nor the system that has been developed is a real-time online system (without date of reference) as has been envisaged at the time of switchover the responsibility of UDISE from NIEPA to the *Department of School Education and Literacy* of the Ministry of Education. The state of Bihar is trying its best to compute the district-specific Performance Grading Index, the outcome of which is not possible to use in the *Annual Work Plan & Budget* under the flagship *Samagra Shiksha Abhiyan* as it is generally based on two years old data.

Instead of strengthening schools with regard to computers and the internet, the state of Bihar has evolved into a Man-with-Machine scheme under which an agency with a Computer Operator works in each block of the state with a laptop for UDISE+ data entry. Has the national level authorities envisaged such type of an online system where the respondent, the school headmaster, runs from pillar to post to enter the data of his/her school in an online portal?

In a few other states, cyber-café is offering its services for online data entry, which suggest that the paper Data Capture Format is still very much in use; rather than maintain the quality and consistency of data, the paper DCF has helped in the past to a great extent in improving the quality of data. Still, there is no alternative but to continue with the paper DCF. Strengthening schools with computers and internet connectivity has become more necessary in view of the revamping of Student Data Collection in sync with UDISE+ from 2022-23 data collection. It is hoped the state will make an elaborate arrangement for this mammoth task to complete the same within the stipulated time, as the total number of student records in Bihar is to the tune of more than 26.64 million.

For further analysis of school education, visit [Education For All in India](#)