



Interstate analysis of selected school facilities in India: Evidence from 2024-25

UDISE+ data

Smita Biswas

Smita Biswas (Research Scholar, Department of Economics, North Bengal University,
email:biswassmita1997@gmail.com)

Anil Bhuimali

Anil Bhuimali (North Bengal University, email: anilbhuimali@nbu.ac.in)

DOI : <https://doi.org/10.5281/zenodo.20126421>

ARTICLE DETAILS

Research Paper

Accepted: 25-04-2026

Published: 10-05-2026

Keywords:

School, Facilities, Boys' toilet, Girls' toilet, Library, Electricity.

ABSTRACT

For a developing country like India, education is the strongest weapon for advancing the nation. Besides the number of schools, it is important to have basic facilities in schools. Many literatures confirm that in India, there are variations in facility availability across states. Here in this paper, we have used UDISE+ data for the year 2024-25 on some selected facilities like library, functional electricity, functional boys' and girls' toilet facilities. In this paper, we have used log-transformed Z-scores to identify the positions of all the states and UTs in the list. We have ranked them according to their log-transformed Z-scores for each of these facilities. We have found that for all the facilities, Meghalaya ranked the lowest, which confirms the lowest percentage of schools having these facilities in this state. Meanwhile, most of the UTs are ranked within the 10th in the list. Though there are huge variations within the same country.

Introduction

Education is a powerful vehicle for the country's development in various aspects. It can influence people's perspective on life. It stimulates a country's economic growth (Hanushek and Woessmann, 2015). For a developing country, investment in education is crucial for educational outcomes (Hanushek, 2003). It is seen that the economic growth is positively associated with improved school infrastructure for



Indian states (Chotia & Rao, 2015). Inadequate school infrastructure is directly related to the poor performance among students (Maratkyzy, 2025). This paper explores the position of the Indian states/UTs on the basis of some school facilities like library, functional electricity, functional boys' and girls' toilet facilities by using the Unified District Information System for Education Plus (UDISE+) data. In India there are 28 states (Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Goa, Gujarat, Haryana, Himachal Pradesh, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland, Odisha, Punjab, Rajasthan, Sikkim, Tamil Nadu, Telangana, Tripura, Uttar Pradesh, Uttarakhand, West Bengal) and 8 union territories (Andaman and Nicobar Islands, Chandigarh, Dadra and Nagar Haveli and Daman and Diu, Delhi, Jammu and Kashmir, Ladakh, Lakshadweep, Puducherry). In order to do the rank, the log-transformed Z-scores have been used.

Literature review

Western and southern states are highly equipped with better infrastructure in schools due to adequate public spending compared to northern, eastern and northeastern states, which are facing inadequate facilities due to geographical locations, poor governance and low public spending on education (Ahluwalia, 2000). Universal elementary education is achievable when the educational infrastructure is adequately developed. However, besides increasing the number of schools, it is important to develop adequate basic facilities that not only increase enrolment but also improve the learning environment (Mehrotra, 2006). Rural students are lagging behind in academic performance and school attendance compared to urban students. This is due to the insufficient educational infrastructure in rural areas compared to the urban schools (Kingdon, 2007). In India, school infrastructure facilities are unevenly distributed across states. These disparities affect learning outcomes across different socio-economic groups and between rural and urban areas (Asadullah & Yalonetzky, 2012). Public expenditure on education highly affects the school facilities across different states. Developed states like Kerala tend to have better school facilities, but the less developed states like Uttar Pradesh and Bihar are far from the requirements (Tilak, 2018). Digital divide is also one of the important factors why rural children are lagging in modern educational benefits. Access to computers and internet connectivity in schools is missing in many rural schools. This uneven distribution is seen across states and various lower administrative regions (UNESCO, 2021). Hota and Acharya (2023) noted that Education infrastructure is highly associated with the learning outcomes and enrollment. The persistence of poverty and inequality is highly associated with poor educational facilities. It creates dissimilarities in different socio-economic groups (Kishan & Rajverma, 2024).



Research gap

There is a lot of literature available which have denoted that there is an unequal distribution of school facilities among the states in India. Much literature has also constructed a composite index. But there is limited literature available which have rank the states/UTs by using log-transformed Z-scores on the basis of each school's facilities for the year 2024-25. Here in this study, we have taken facilities like library, functional electricity, functional girls' and boys' toilet facilities to see each state/UT's position in the list.

Objectives of the study

1. To see the school facilities, such as library, functional electricity, functional girls' and boys' toilet facilities in all the states and UTs in India in the year 2024-25
2. To compare their position in the list of all the states/UTs for each of these facilities.
3. To determine which states/UTs are above the average or below the average position in the list.

Methods

This study is based on the descriptive research method. Firstly, data are collected from the Unified District Information System for Education Plus (UDISE+) for the year 2024-25 on school facilities such as the percentage of schools having functional boys' toilets and girls' toilets, electricity, and library. Due to the presence of outliers and skewness, the data are transformed to logarithms, and then the resulting values for each state are subsequently standardised as Z-scores to fix the difference in scales, which helps us to rank the states according to their facilities availability. This process helps the raw data to have mean of 0 and standard deviation of 1. Firstly, for log transformation, the following formula is used: $X' = \ln(X)$. Here, X is the original raw value for the states, X' is the log-transformed value, and ln is the natural logarithm (Base e). Then, these values for each state are standardized into Z-scores by using the following formula: $z = \{\ln(X) - \mu\}/\{\sigma\}$. Here, X is the value, μ is mean and σ is the standard deviation. For these methods, we have used IBM SPSS Statistics for Windows, version 27.0.

If the final Z-value is positive, negative and exactly zero, then this particular state stands in a position which is above average, below average and exactly at average, respectively. For each facility, we have ranked the states accordingly. We have ranked the states/UTs according to the Z-score (log transformed), in the following way:



If the Z-score (log transformed) lies between 0 and +0.5, it means states/UTs are immediately above the average; if it lies between +0.5 and 1, it is slightly above the average; if it is in the range +1 to +2, it indicates states/UTs are moderately above the average, and more than +2 shows extremely above the average. In the same way, If Z-score (log transformed) are lies between 0 and -0.5, is means states/UTs are immediately below the average, if it is lies between -0.5 to -1, it is slightly below the average, if this is in the range of -1 to -2, this indicates states/UTs are moderately below the average and more than -2 shows extremely below the average.

Data analysis

Library

The ranks of states/UTs by library availability are shown in Table I, and Bar Graph 1 shows the schools with library for each state/UT. In 2024-25, Chandigarh, Delhi, Goa, Lakshadweep, and Puducherry stood at the top and Manipur at the bottom in library availability in schools. The states/UTs stands in the position with above-average are Chandigarh, Delhi, Goa, Lakshadweep, Puducherry, Andhra Pradesh, Odisha, Dadra and Nagar Haveli, Himachal Pradesh, Andaman and Nicobar, Tamil Nadu, Kerala, Punjab, Maharashtra, Karnataka, Madhya Pradesh, Haryana, Chhattisgarh, Uttarakhand, Gujarat, Ladakh, Telangana, Jharkhand, Assam, Sikkim, West Bengal respectively with 100 percent, 100 percent, 100 percent, 100 percent, 100 percent, 99.98 percent, 99.84 percent, 99.77 percent, 99.58 percent, 99.5 percent, 99.09 percent, 98.87 percent, 98.56 percent, 98.52 percent, 98.41 percent, 98.11 percent, 97.91 percent, 97.6 percent, 96.99 percent, 96.01 percent, 95.08 percent, 94.92 percent, 94.66 percent, 93.62 percent, 92.01 percent, 88.7 percent respectively. . The states/UTs with below-average are Uttar Pradesh, Rajasthan, Nagaland, Tripura, Mizoram, Jammu and Kashmir, Bihar, Arunachal Pradesh, Meghalaya and Manipur with 81.62 percent, 80.34 percent, 79.33 percent, 78.13 percent, 76.78 percent, 75.05 percent, 66.65 percent, 43.17 percent, 28.45 percent, 27.68 percent of schools respectively.

Table: I

Ran k	State/UT	Schools have library (in percent)	Z-score (log transform ed)	Ran k	State/UT	Schools have library (in percent)	Z-score (log transforme d)
1	Chandigarh (UT)	100	0.51402	19	Uttarakha nd	96.99	0.41785

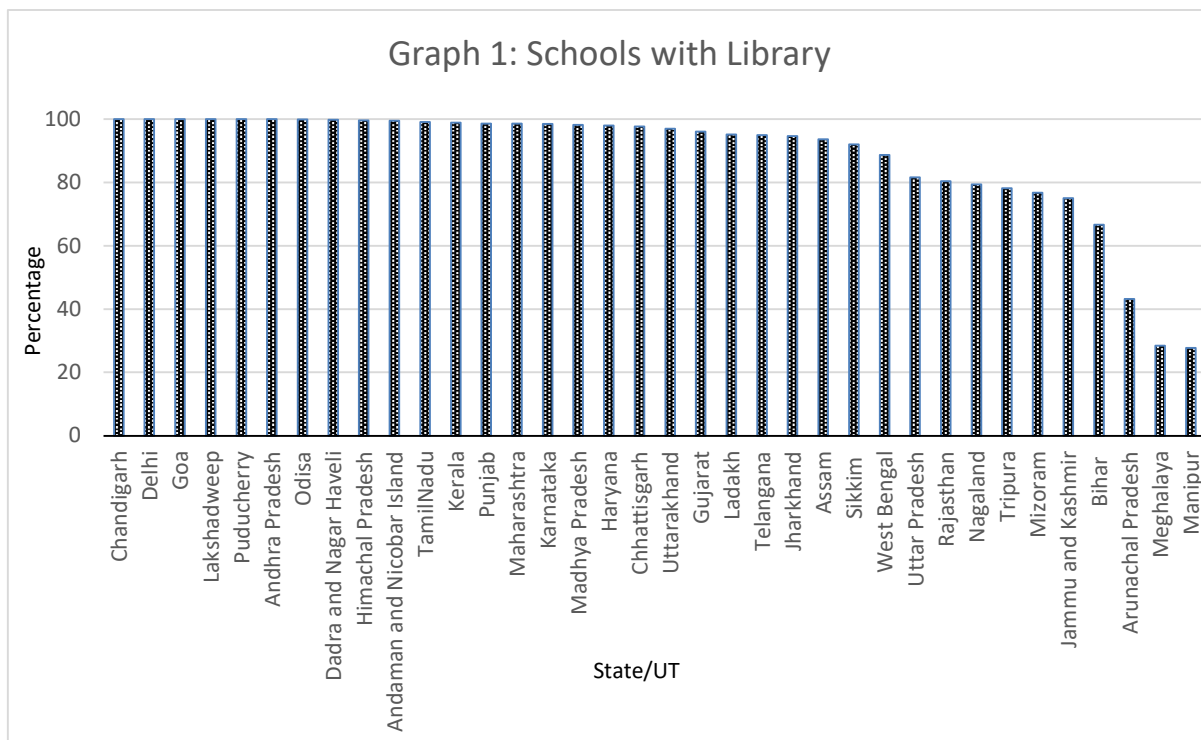


2	Delhi (UT)	100	0.51402	20	Gujarat	96.01	0.38589
3	Goa	100	0.51402	21	Ladakh (UT)	95.08	0.35526
4	Lakshadweep (UT)	100	0.51402	22	Telangana	94.92	0.34996
5	Puducherry (UT)	100	0.51402	23	Jharkhand	94.66	0.34133
6	Andhra Pradesh	99.98	0.51339	24	Assam	93.62	0.30656
7	Odisha	99.84	0.50898	25	Sikkim	92.01	0.25198
8	Dadra and Nagar Haveli (UT)	99.77	0.50678	26	West Bengal	88.7	0.13668
9	Himachal Pradesh	99.58	0.50078	27	Uttar Pradesh	81.62	-0.12509
10	Andaman and Nicobar Islands (UT)	99.5	0.49825	28	Rajasthan	80.34	-0.17483
11	Tamil Nadu	99.09	0.48526	29	Nagaland	79.33	-0.21464
12	Kerala	98.87	0.47826	30	Tripura	78.13	-0.26261
13	Punjab	98.56	0.46838	31	Mizoram	76.78	-0.31746
14	Maharashtra	98.52	0.4671	32	Jammu and Kashmir (UT)	75.05	-0.38917
15	Karnataka	98.41	0.46359	33	Bihar	66.65	-0.7627
16	Madhya Pradesh	98.11	0.45398	34	Arunachal Pradesh	43.17	-2.1294
17	Haryana	97.91	0.44756	35	Meghalaya	28.45	-3.44163
18	Chhattisgarh	97.6	0.43758	36	Manipur	27.68	-3.52798

Source: Unified District Information System for Education plus (UDISE+), 2024-25



It is seen that Chandigarh, Delhi, Goa, Lakshadweep, Puducherry, Andhra Pradesh, Odisha, Dadra and Nagar Haveli, and Himachal Pradesh are slightly above the average. However, Andaman and Nicobar Islands, Tamil Nadu, Kerala, Punjab, Maharashtra, Karnataka, Madhya Pradesh, Haryana, Chhattisgarh, Uttarakhand, Gujarat, Ladakh, Telangana, Jharkhand, Assam, Sikkim, West Bengal are immediately above the average. Meanwhile, Uttar Pradesh, Rajasthan, Nagaland, Tripura, Mizoram, and Jammu and Kashmir are immediately below the average. Meanwhile, Bihar is in a position slightly below the average. Arunachal Pradesh, Meghalaya and Manipur are extremely below the average, which means these are the extreme outliers in the data.



Source: Unified District Information System for Education plus (UDISE+), 2024-25

Functional Electricity

The ranks of states/UTs by electricity availability are shown in Table II, and Bar Graph 2 shows functional electricity in each state/UT. In 2024-25, Chandigarh, Dadra and Nagar Haveli, Delhi, Goa, Lakshadweep, and Puducherry stood as the highest, and Meghalaya showed the lowest rank in the schools with electricity. the states/UTs that stand in a position more than the average are Chandigarh, Dadra and Nagar Haveli, Delhi, Goa, Lakshadweep, Puducherry, Haryana, Punjab, Gujarat, Kerala,

Table II



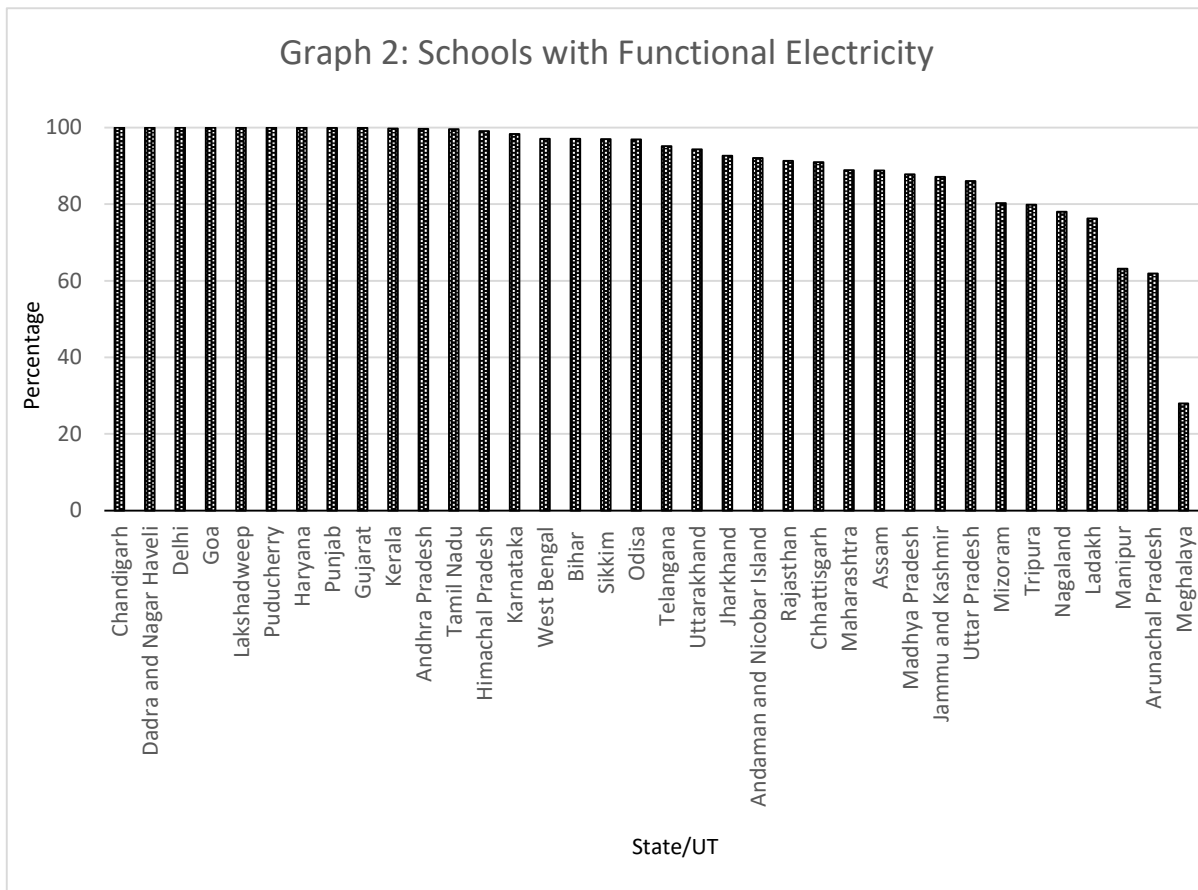
Rank	State/UT	Schools with electricity (in percent)	Z-score (log transformed)	Rank	State/UT	Schools with electricity (in percent)	Z-score (log transformed)
1	Chandigarh (UT)	100	0.5336	19	Telangana	95.14	0.31836
2	Dadra and Nagar Haveli (UT)	100	0.5336	20	Uttarakhand	94.29	0.27959
3	Delhi (UT)	100	0.5336	21	Jharkhand	92.64	0.20332
4	Goa	100	0.5336	22	Andaman and Nicobar Islands (UT)	92.06	0.17619
5	Lakshadweep (UT)	100	0.5336	23	Rajasthan	91.31	0.14085
6	Puducherry (UT)	100	0.5336	24	Chhattisgarh	90.93	0.12283
7	Haryana	99.95	0.53144	25	Maharashtra	88.86	0.02335
8	Punjab	99.93	0.53057	26	Assam	88.78	0.01945
9	Gujarat	99.89	0.52884	27	Madhya Pradesh	87.77	-0.02998
10	Kerala	99.75	0.52278	28	Jammu and Kashmir (UT)	87.16	-0.06011
11	Andhra Pradesh	99.65	0.51845	29	Uttar Pradesh	86.02	-0.11698
12	Tamil Nadu	99.59	0.51585	30	Mizoram	80.29	-0.4148
13	Himachal Pradesh	99.03	0.49149	31	Tripura	79.88	-0.43692
14	Karnataka	98.28	0.45864	32	Nagaland	78.05	-0.53704
15	West Bengal	97.1	0.40646	33	Ladakh (UT)	76.26	-0.63727



16	Bihar	97.07	0.40512	34	Manipur	63.11	-1.45496
17	Sikkim	97.01	0.40245	35	Arunachal Pradesh	61.9	-1.53859
18	Odisha	96.91	0.398	36	Meghalaya	27.98	-4.96897

Source: Unified District Information System for Education plus (UDISE+), 2024-25

Andhra Pradesh, Tamil Nadu, Himachal Pradesh, Karnataka, West Bengal, Bihar, Sikkim, Odisha, Telangana, Uttarakhand, Jharkhand, Andaman and Nicobar Island, Rajasthan, Chhattisgarh, Maharashtra and Assam with 100 percent, 100 percent, 100 percent, 100 percent, 100 percent, 100 percent, 99.95 percent, 99.93 percent, 99.89 percent, 99.75 percent, 99.65 percent, 99.59 percent, 99.03 percent, 98.28 percent, 97.1 percent, 97.07 percent, 97.01 percent, 96.91 percent, 95.14 percent, 94.29 percent, 92.64 percent, 92.06 percent, 91.31 percent, 90.93 percent, 88.86 percent, and 88.78 percent of schools respectively. Meanwhile, Madhya Pradesh, Jammu and Kashmir, Uttar Pradesh, Mizoram, Tripura, Nagaland, Ladakh, Manipur, Arunachal Pradesh and Meghalaya showed below the average with 87.77 percent, 87.16 percent, 86.02 percent, 80.29 percent, 79.88 percent, 78.05 percent, 76.26 percent, 63.11 percent, 61.9 percent, 27.98 percent respectively.





Source: Unified District Information System for Education plus (UDISE+), 2024-25

It is seen that Chandigarh, Dadra and Nagar Haveli, Delhi, Goa, Lakshadweep, Puducherry, Haryana, Punjab, Gujarat, Kerala, Andhra Pradesh and Tamil Nadu indicate they are slightly above the average in the list. Although Himachal Pradesh, Karnataka, West Bengal, Bihar, Sikkim, Odisha, Telangana, Uttarakhand, Jharkhand, Andaman and Nicobar Islands, Rajasthan, Chhattisgarh, Maharashtra, and Assam confirm their presence among the immediately above the average. Meanwhile, Madhya Pradesh, Jammu and Kashmir, Uttar Pradesh, Mizoram, and Tripura are immediately below the average. While Nagaland and Ladakh are slightly below the average. Manipur and Arunachal Pradesh are moderately below the average. However, Meghalaya shows extremely below the average.

Functional girls' toilet facility

Table III represents the states/UTs ranks depending on the schools with girls' toilet facilities, and Bar Graph 3 shows the percentage of schools with this facility. By determining the log-transformed z-scores, it is seen that the Andaman and Nicobar Islands, Chandigarh, and Lakshadweep represent the highest, and Meghalaya showed the lowest rank in the schools with functional girls' toilets. The states/UTs that are situated above average are Andaman and Nicobar Island, Chandigarh, Lakshadweep, Delhi, Goa, Puducherry, Haryana, Dadra and Nagar Haveli, West Bengal, Kerala, Himachal Pradesh, Punjab, Karnataka, Bihar, Odisha, Gujarat, Sikkim, Jharkhand, Tamil Nadu, Maharashtra, Assam, Uttar Pradesh, Telangana with 100 percent, 100 percent, 100 percent, 99.96 percent, 99.93 percent, 99.86 percent, 99.79 percent, 99.77 percent, 99.64 percent, 99.61 percent, 99.14 percent, 98.68 percent, 98.52 percent, 98.14 percent, 98.11 percent, 97.87 percent, 97.67 percent, 95.94 percent, 94.51 percent, 94.37 percent, 94.28 percent, 93.96 percent, 92.88 percent, respectively. However, Uttarakhand, Chhattisgarh, Ladakh, Andhra Pradesh, Madhya Pradesh, Rajasthan, Jammu and Kashmir, Nagaland, Mizoram, Tripura, Manipur, Arunachal Pradesh, and Meghalaya fall below the average with 90.88 percent, 90.02 percent, 89.39 percent, 88.79 percent, 88.55 percent, 87.26 percent, 84.32 percent, 80.47 percent, 79.02 percent, 75.34 percent, 74.44 percent, 73.39 percent and 68.68 percent respectively.

Z-scores revealed that the Andaman and Nicobar Islands, Chandigarh, Lakshadweep, Delhi, Goa, Puducherry, Haryana, Dadra and Nagar Haveli, West Bengal, Kerala, Himachal Pradesh, Punjab, Karnataka, Bihar, Odisha, Gujarat, and Sikkim are slightly above the average. Meanwhile, Jharkhand, Tamil Nadu, Maharashtra, Assam, Uttar Pradesh, and Telangana are immediately above the average. However, Uttarakhand, Chhattisgarh, Ladakh, Andhra Pradesh, Madhya Pradesh, and Rajasthan are showing that they are immediately below the average. Jammu and Kashmir is slightly below the average.



Although Nagaland, Mizoram, and Tripura are moderately below the average. But Manipur, Arunachal Pradesh and Meghalaya are extremely below the average.

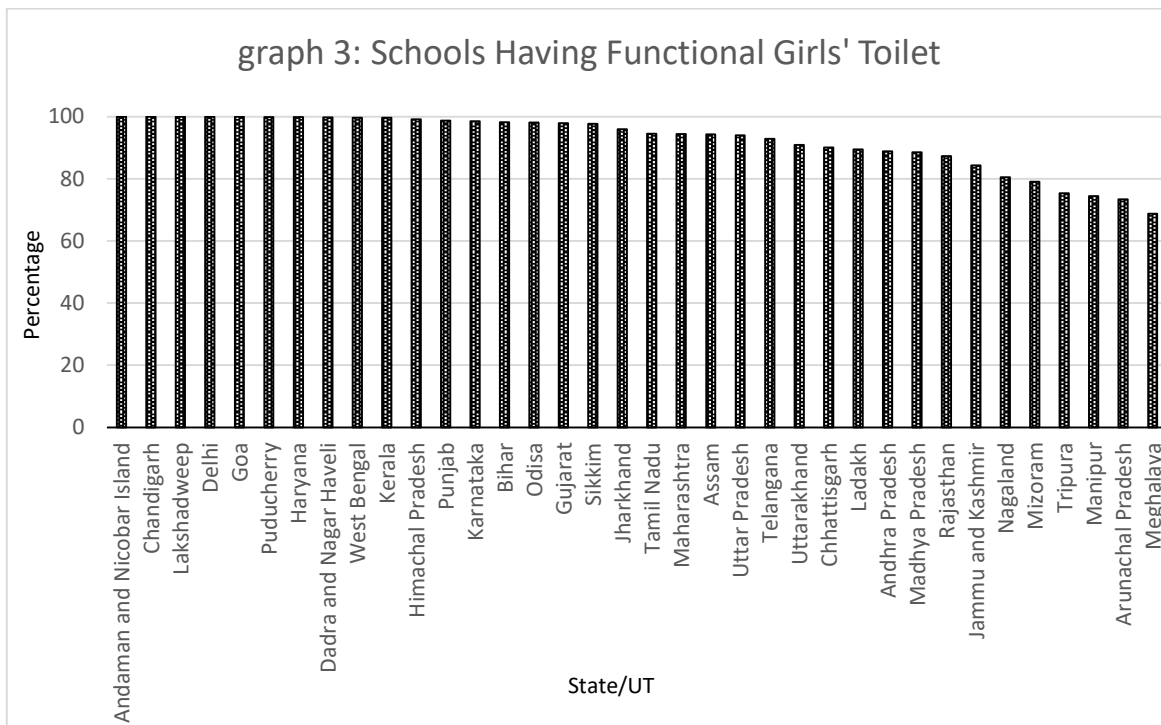
Table III

Ran k	State/UT Name	Percentag e	Z-score(log transforme d)	Ran k	State/UT Name	Percentag e	Z-score(log transforme d)
1	Andaman and Nicobar Islands (UT)	100	0.81709	19	Tamil Nadu	94.51	0.27459
2	Chandigarh (UT)	100	0.81709	20	Maharashtr a	94.37	0.26034
3	Lakshadweep (UT)	100	0.81709	21	Assam	94.28	0.25118
4	Delhi (UT)	99.96	0.81324	22	Uttar Pradesh	93.96	0.21851
5	Goa	99.93	0.81036	23	Telangana	92.88	0.10744
6	Puducherry (UT)	99.86	0.80363	24	Uttarakhan d	90.88	-0.10171
7	Haryana	99.79	0.79689	25	Chhattisgar h	90.02	-0.19306
8	Dadra and Nagar Haveli (UT)	99.77	0.79496	26	Ladakh (UT)	89.39	-0.26054
9	West Bengal	99.64	0.78244	27	Andhra Pradesh	88.79	-0.32524
10	Kerala	99.61	0.77954	28	Madhya Pradesh	88.55	-0.35125
11	Himachal Pradesh	99.14	0.7341	29	Rajasthan	87.26	-0.49225
12	Punjab	98.68	0.68942	30	Jammu and Kashmir	84.32	-0.82154



				(UT)		
13	Karnataka	98.52	0.67383	31	Nagaland	80.47
14	Bihar	98.14	0.6367	32	Mizoram	79.02
15	Odisha	98.11	0.63376	33	Tripura	75.34
16	Gujarat	97.87	0.61023	34	Manipur	74.44
17	Sikkim	97.67	0.59057	35	Arunachal Pradesh	73.39
18	Jharkhand	95.94	0.41887	36	Meghalaya	68.68

Source: Unified District Information System for Education plus (UDISE+), 2024-25



Source: Unified District Information System for Education plus (UDISE+), 2024-25

Functional boys' toilet facility

State-wise data on boys' toilet facilities in schools in the year 2024-25 are presented in Table IV and Bar Graph 4 below. It is seen that in the year 2024-25, Chandigarh and Lakshadweep rank at the top, with 100 per cent of schools having boys' toilets, while Meghalaya ranks lowest at 71.97 per cent. Including the highest rankers, Goa, Dadra and Nagar Haveli, Delhi, West Bengal, Puducherry, Kerala, Andaman and Nicobar Island, Haryana, Himachal Pradesh, Sikkim, Punjab, Bihar, Gujarat, Odisha, Karnataka, Jharkhand, Uttar Pradesh, Assam, Ladakh, Maharashtra represent relatively above-average positions on



schools having functional boys' toilet with 99.86 percent, 99.77 percent, 99.73 percent, 99.53 percent, 99.31 percent, 99.3 percent, 99.25 percent, 99.09 percent, 98.83 percent, 98.46 percent, 98.09 percent, 97.54 percent, 97.41 percent, 96.54 percent, 96.06 percent, 94.81 percent, 94.53 percent, 93.68 percent, 92.22 percent, 92 percent respectively. However, Tamil Nadu, Uttarakhand, Andhra Pradesh, Madhya Pradesh, Rajasthan, Telangana, Chhattisgarh, Jammu and Kashmir, Nagaland, Mizoram, Manipur, Arunachal Pradesh, Tripura and Meghalaya fall relatively below the average with 90.91 percent, 89.03 percent, 88.76 percent, 87.14 percent, 86.81 percent, 86.67 percent, 84.26 percent, 81.24 percent, 80.57 percent, 79.86 percent, 76.34 percent, 75.25 percent, 73.96 percent and 71.97 percent of schools respectively.

Chandigarh, Lakshadweep, Goa, Dadra and Nagar Haveli, Delhi, West Bengal, Puducherry, Kerala, Andaman and Nicobar Island, Haryana, Himachal Pradesh, Sikkim, Punjab, Bihar, Gujarat, Odisha, and Karnataka are slightly above the average, while Jharkhand, Uttar Pradesh, Assam, Ladakh and Maharashtra are immediately above the average. Meanwhile, Tamil Nadu, Uttarakhand, Andhra Pradesh, Madhya Pradesh, and Rajasthan are immediately below the average. However, Telangana and Chhattisgarh are slightly below the average, while Jammu and Kashmir, Nagaland, Mizoram, Manipur, and Arunachal Pradesh are moderately below the average. The Z-score also depicts that Tripura and Meghalaya are the extreme outliers in the data, which are extremely below the average.

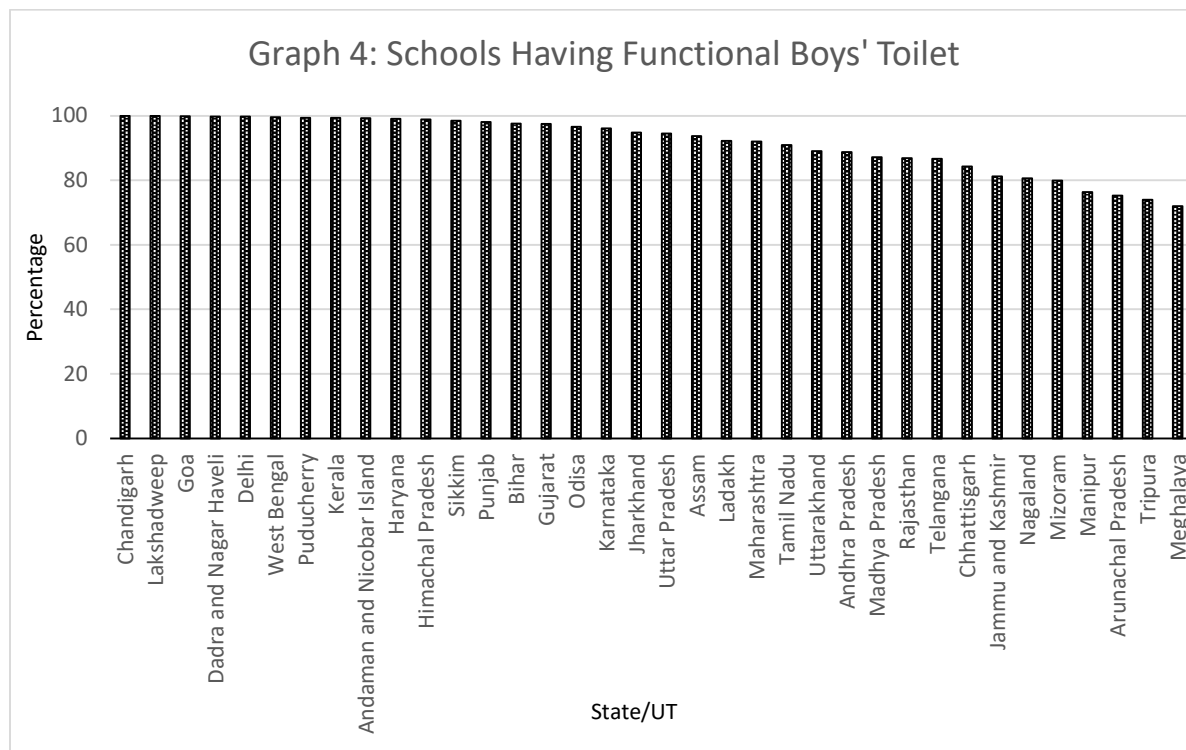
Table IV

Rank	State/UT Name	Percentage	Z-score (log transformed)	Rank	State/UT Name	Percentage	Z-score (log transformed)
1	Chandigarh (UT)	100	0.92903	19	Uttar Pradesh	94.53	0.36095
2	Lakshadweep (UT)	100	0.92903	20	Assam	93.68	0.26974
3	Goa	99.86	0.91489	21	Ladakh (UT)	92.22	0.11111
4	Dadra and Nagar Haveli (UT)	99.77	0.90578	22	Maharashtra	92	0.08699
5	Delhi (UT)	99.73	0.90173	23	Tamil Nadu	90.91	-0.03337
6	West Bengal	99.53	0.88146	24	Uttarakhand	89.03	-0.2444
7	Puducherry (UT)	99.31	0.85911	25	Andhra Pradesh	88.76	-0.27508



8	Kerala	99.3	0.85809	26	Madhya Pradesh	87.14	-0.4611
9	Andaman and Nicobar Islands (UT)	99.25	0.85301	27	Rajasthan	86.81	-0.49941
10	Haryana	99.09	0.83672	28	Telangana	86.67	-0.51571
11	Himachal Pradesh	98.83	0.81018	29	Chhattisgarh	84.26	-0.8005
12	Sikkim	98.46	0.7723	30	Jammu and Kashmir (UT)	81.24	-1.1691
13	Punjab	98.09	0.73428	31	Nagaland	80.57	-1.25273
14	Bihar	97.54	0.6775	32	Mizoram	79.86	-1.34212
15	Gujarat	97.41	0.66403	33	Manipur	76.34	-1.79735
16	Odisha	96.54	0.57343	34	Arunachal Pradesh	75.25	-1.94258
17	Karnataka	96.06	0.52309	35	Tripura	73.96	-2.1172
18	Jharkhand	94.81	0.39082	36	Meghalaya	71.97	-2.39264

Source: Unified District Information System for Education plus (UDISE+), 2024-25





Source: Unified District Information System for Education plus (UDISE+), 2024-25

Summary and conclusion

From the study, we can conclude that the 2024-25 data show an uneven distribution of school facilities across various states/UTs for almost all of these facilities, such as library, electricity, and functional boys' and girls' toilets. We have seen that some states/UTs have 100 percent of schools equipped with these facilities, while some states are lagging far behind in meeting the requirements. States like Arunachal Pradesh, Meghalaya and Manipur have below 50 percent of schools with a library, Meghalaya has below 50 percent of schools with electricity coverage; however, Meghalaya has below 75 percent of schools equipped with functional girls' and boys' toilet facilities. Among all the states/UTs, Meghalaya confirms the lowest ranking in the list for all the facilities taken. However, it is seen that all the states/UTs have a minimum of 65 percent of schools equipped with functional girls' and boys' toilet facilities, but library and electricity coverage are extremely low in some of the states, even below 30 percent. It is also seen that most of the UTs are within the 10th position of this list. Maybe this is due to the direct central government control, higher per capita spending, and low political complications for funds allocation, which generally leads to better focus on developmental activity by the government. Though the administrative differences between UTs and states, as well as among the states, we have taken all 28 states and 8 UTs to see their position in the list derived from log-transformed Z-scores. The government should take necessary steps to promote equity in these areas, as these are the basic facilities in schools. This can be achievable from the efficient utilisation of funds, and more research is needed to find out the loopholes for the scarcity of these facilities.

References

1. Hanushek, E. A., & Woessmann, L. (2015). *The knowledge capital of nations: Education and the economics of growth*. MIT Press.
- Hota, S. P., & Acharya, S. K. (2023). Education infrastructure, expenditure, enrollment & economic development in Odisha, India. *International Journal of Educational Development*, 103, 102903.
- Asadullah, M. N., & Yalonetzky, G. (2012). Inequality of educational opportunity in India: Changes over time and across states. *World Development*, 40(6), 1151–1163.
- Tilak, J. B. G. (2018). Education and development in India: Critical issues in public policy and development. *Social Change*, 48(2), 161–181.



- Kingdon, G. G. (2007). The progress of school education in India. *Oxford Review of Economic Policy*, 23(2).
- UNESCO. (2021). *Global education monitoring report: India case study*. UNESCO Publishing.
- Kishan, P. K. V., & Rajverma, A. (2024). Intergenerational education mobility in India. *Frontiers in Sociology*, 9, 1295550.
- Mehrotra, S. (2006). Reforming elementary education in India: A menu of options. *International Journal of Educational Development*, 26(3), 261–277.
- Ahluwalia, M. S. (2000). Economic performance of states in post-reforms period. *Economic and Political Weekly*, 35(19), 1637–1648.
- Chotia, V., & Rao, N. V. M. (2015). Examining the interlinkages between regional infrastructure disparities, economic growth, and poverty: A case of Indian states. *Economic Annals*, 60(205), 53–71.
- Maratkyzy, S. (2025). *The impact of school infrastructure on student learning: A qualitative systematic review of literature*. *Eurasian Science Review*, 3(7), 202–209.
- Hanushek, E. A. (2003). The failure of input-based schooling policies. *The Economic Journal*, 113(485), F64–F98.
- Breen, R., & Goldthorpe, J. H. (1997). Explaining educational differentials: Towards a formal rational action theory. *Rationality and Society*, 9(3), 275–305.
- Chattopadhyay, T., & Roy, M. (2017). Low-fee private schools in India: The emerging fault lines. National Center for the Study of Privatisation in Education Working Paper, 233.
- Bussolo, M., Checchi, D., & Peragine, V. (2019). Long-term evolution of inequality of opportunity. *World Bank Policy Research Working Paper*, 8700, 1–25.
- Choudhary, A., & Singh, A. (2018b). Examination of intergenerational occupational mobility among Indian women. *International Journal of Social Economics*, 45(7), 1071–1091.
- Corak, M. (2006). Do poor children become poor adults? Lessons from a cross-country comparison of generational earnings mobility. In *Research on Economic Inequality* (Vol. 13). Emerald Group Publishing.



- de Werfhorst, H. G., Mijs, J. J. B., & others. (2010). Achievement inequality and the institutional structure of educational systems: A comparative perspective. *Annual Review of Sociology*, 36, 407–428.
- Sacerdote, B. (2007). How large are the effects from changes in family environment? A study of Korean American adoptees. *The Quarterly Journal of Economics*, 122(1), 119–157.
- Shariq, A. R. (2019). Does a good father now have to be rich? Intergenerational income mobility in rural India. *Labour Economics*, 60, 99–114.
- Tilak, J. B. G. (2007). Post-elementary education, poverty and development in India. *International Journal of Educational Development*, 27(4), 435–445.
- Torche, F. (2021). Educational mobility in the developing world. In V. Iversen, A. Krishna, & K. Sen (Eds.), *Developing countries: Concepts, methods, and determinants* (pp. 139–171). Oxford University Press.
- Sewell, W. H., Haller, A. O., & Ohlendorf, G. W. (1970). The educational and early occupational attainment process. *American Sociological Review*, 35(6), 1014–1027.
- Solon, G. (1999). Intergenerational mobility in the labor market. In O. Ashenfelter & D. Card (Eds.), *Handbook of labor economics* (Vol. 3, pp. 1761–1800). Elsevier.