

An Assessment of District Level Educational Inequality of Assam with Special Reference to Barak Valley

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Abstract: Education is inevitable for socio-economic development as it enhances skills and knowledge of the workforce, promotes economic growth and fosters human capital and social mobility. It encourages individuals for higher knowledge and skills which is required for better employment opportunities and higher earnings which ultimately lead to enhance overall living standards. Moreover, education also plays a very important role in social development by increasing awareness in social issues encouraging critical thinking and fostering civic engagement. Thus, education performs the role of a catalyst for socio-economic development by equipping individuals with the advanced knowledge which is needed to thrive in a competitive world and contribute to a more just, developed and prosperous society.

Key Words: Human capital, civic engagement, social issues, catalyst, socio-economic development.

I. Introduction:

Education plays a very important role to open the door of civilization and modernization. It is the key of development of an individual, society and the nation as a whole. The level of education brings about the extent of economic prosperity, welfare and financial security of the people. It plays the key role for the socio-economic development of a particular area. The higher an area is developed educationally, the higher economic stability and quality of life that one particular area enjoys. Thus, education should be emphasized in such a way that it ensures the social as well as economic development and enhance the quality of life of that region. India and its states have been making substantial upliftment in terms of increase in the number of educational institutions and enrolment over the years. However, high level of dropout rates is visible in successively higher levels of education (Mospi, 2006). Additionally, the learning levels of the students are not up to the mark as per Annual Status of Education Report (ASER).

State profile of Assam:

Assam is situated in the North-East region of India – bordering seven states namely Arunachal Pradesh, Manipur, Meghalaya, Nagaland, Tripura and West Bengal and two countries Bhutan and Bangladesh. The geographical area of the state is 78,438 sq.km. of which 98.4 percent area is rural. Assam shares about 2.4 percent of the country's landmass, providing shelter to 2.6 percent of India's population as per Census 2011. For administration and revenue purposes, the state has presently 35 districts. including newly created districts namely – Biswanath, Charaideo, Hojai, South Salmara, West Karbi Anglong, Majuli, Bajali and Tamulpur. Due to delimitation process in Assam, four districts namely Biswanath, Hojai, Bajali and Tamulpur are merged with their original districts.

Assam is a state of heterogeneous population with socio-cultural and ethnic diversity. According to the census of India 2011, the population of Assam was 312.05 lakh of which 159.39 lakh were male and 152.66 lakh were female. The decadal growth rate of the state population during 2001-2011 was 17.07 percent against 17.68 percent growth for the country as a whole. Out of total population in the state, 86 percent population lived in rural areas and 14 percent population in urban areas. The percentage of rural population of the state was higher than all India average of 69 percent. However, the urban population in the state had increased from 12.9 percent in 2001 to 14 percent in 2011. The density of population of Assam in 2011 was 398 persons per sq.km. as compared to 340 persons in 2001. The sex ratio (number of females per thousand male) of Assam had increased to 958 in 2011 from 935 in 2001. Compared to overall sex ratio of the state, the child sex ratio (age group 0-6 years) had gradually declined from 975 in 1991 to 967 in 2001 and further to 962 in 2011. On the other hand, sex ratio at birth in Assam as per 2011 census was 957.

Assam is one of the major states of the North Eastern Region of India and is the gateway of other North Eastern states of the country. However, the state is lagging behind in comparison to other states of India in terms of socio-economic indicators. The literacy rate of the state is the lowest among other North-Eastern states and is also lagging behind the national average. In terms of quality education, Assam's score has been reduced from 12 to 4 in 2020-21 (Sharma, 2024). Moreover, the arithmetic ability of students of Assam is below the national average (Pratham, 2022). Thus, to judge the quantitative as well as qualitative aspects of education indicators is very essential to predict a country's economic scenario.

Profile of Barak Valley:

The Barak Valley, named after the Barak River, is situated in Assam's southern region and comprises three administrative districts: Cachar, Karimganj, and Hailakandi. The capital city is Silchar. Earlier North Cachar Hills was a part of the valley but in 1951 erstwhile subdivision was made a separate district and eventually carved out of Cachar District. On July 1, 1983, Karimganj district

was separated from the Cachar Valley subdivision. In 1989, the same process was repeated with the establishment of Hailakandi district.



Barak Valley

Barak Valley, spanning 6922 sq. km, is 8.9% of Assam's total area and is surrounded by Manipur, Tripura, Bangladesh, Mizoram, and Cachar Hills. It consists of three districts: Cachar, Karimganj, and Hailakandi. The population has grown significantly, with a 20.94% increase between 1961 and 1971, 30.1% till 1991, and 16.66% in 2001 and 31.1% in 2011. The economy is primarily agrarian, with 80% dependent on paddy. Viable industries include cane, bamboo, pineapple, and other agro-based industries.

Objectives of the study:

- To rank the different districts of Assam in terms of selected educational indicators.
- To calculate Gini coefficient to show the extent of inequality in education among different district of Assam
- To calculate the composite index of education indicators for Assam and Barak Valley.
- To find out the Gap regarding the educational attainment level between Assam and Barak Valley Region.

Research Questions:

- Whether education is expanding equally in all the districts of Assam?
- What is the extent of inequality of education in Assam?
- Whether educational gap is there in between Assam and Barak Valley Region over the years?

II. Literature Review:

Several studies have been put forward to emphasize the importance of education in socio-economic aspects of life as well as for the overall macro-economic development of a country. Theodore W. Schultz (1961) and Gary S. Becker (1962) advocated for human capital as a determinant of economic growth, emphasizing on five main investments: job opportunities, on-the-job training, formal education, adult study programme, health and migration. Barro (2001) conducted a study to analyze the growth effect of education by taking data from a panel of around 100 countries from the period 1965 to 1995. Important findings were average years of schooling of males at secondary and higher levels had positive impact on economic growth while the same at primary level were insignificant to growth and female education indirectly influenced growth by lowering the fertility rate (Bhagwati, Sharma 2024).

Sen (1999) advocated that strong education is essential for economic growth and prosperity. It can also improve an individual's quality of life and their impact on others. education is a fundamental human right that enhances work and life skills, promoting economic growth, productivity, governance, thus enhancing overall welfare (Hannum and Buchmann, 2006). Robert A. Levine (1987) found that educated mothers were more likely to seek medical attention and had lower fertility rates.

Tilak (1993) remarked that the education system of ASEAN countries is relatively much better in terms of literacy, universal primary education, private investment in education etc. However, there is a wide difference among ASEAN countries in terms of educational attainment in higher education. Prakash (2007) in a study found that higher education in India had been facing various challenges in terms of accessibility, equity, quality, finance etc. The development of elementary education at the cost of higher education deteriorated its institutional base and prevented it from being globally competitive (Bhagwati, Sharma 2024).

III. Methodology:

This study is based on secondary data published by various Government and Non-Government organizations. The state-level data on various educational variables have been collected from the Statistical Handbook of Assam, Directorate of Economics and Statistics, Government of Assam.

In order to analyze inter-district variation in the education scenario of Assam and to show the educational gap in between Assam and Barak valley Region over the years, Gini Coefficient and a Composite Education Index have been calculated. Due to the lack of District level data, the starting period is taken as 2014-15 and the end period is taken as 2022-23.

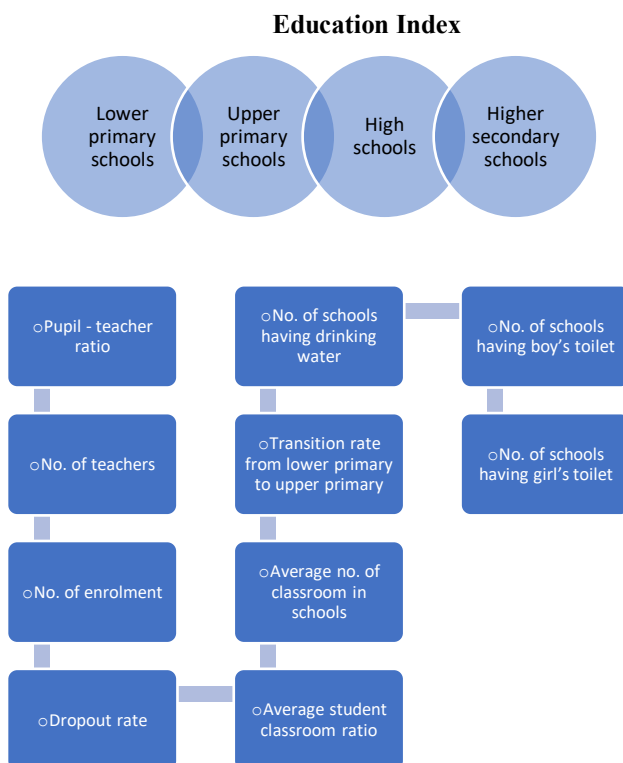
A max-min normalization procedure has been used to normalize the absolute values of indicators so that all the absolute values of the indicators can be transformed into index values which are unit free. The formula for the normalization of the index has been given as follows:

$$X \text{ normalized} = (X - X_{\min}) / (X_{\max} - X_{\min})$$

The above formula has been used by the United Nations Development Programme (UNDP) to construct the Human Development Index (UNDP,1990).

The role of education as an engine of economic growth was emphasized in the academic literature of classical economists like Adam Smith, Alfred Marshall, J.S. Mill etc. In the later phase, Human Capital Theory and New Endogenous Growth theory advocated formal attention to the principle of investing in human resources to promote economic growth (Becker,1975, Schulz, 1961, Lucas 1988, Romer 1990). The experience of many of the developed economies during 1980s taught a lesson that an increase in percapita income is unable to reduce the income inequalities if the mere increase in income is not accompanied by enhancing human development. Due to these factors, the question of investment in education came into existence (Bhagwati, Sharma 1994). Thus, realizing the importance of education in the socio-economic development aspect, this study tries to analyze the overall education scenario of Assam in general and Barak Valley in particular.

Education is the greatest invention of human civilization. It generates evolution of thoughts by changing people's superstitious beliefs into a modern rational thinking, traditional ideas into modern technology-based ideas and build a sense of self confidence. Generally, the level of educational development and economic growth of a country are inter-related and inter-dependent. Thus, for a nation's economic development, the respective government should focus on the growth of outcome indicators of education since educational indicators are expected to influence the overall socio-economic development of the nation. In this study, the level of education has been divided into four categories which are generally considered as base level education for human resource and development. Accordingly, education has been categorically divided as lower primary schools, upper primary schools, high schools and higher secondary schools.



Source: Author's Conceptual Framework

The following tables show the ranks of different districts of Assam for different years according to the above-mentioned educational indicators:

Table – 1: District Ranking of Assam in Education Level, 2014-15

Rank	District	Index
1	Nagaon	0.678221
2	Morigaon	0.671489
3	Kamrup	0.642768
4	Chirang	0.631421
5	Sonitpur	0.624506
6	Udalguri	0.623776
7	Cachar	0.612316
8	Kamrup Metro	0.609166
9	Nalbari	0.604192
10	Baksa	0.603231
11	Tinsukia	0.576074
12	Goalpara	0.575449
13	Barpeta	0.565948
14	Dhubri	0.554142
15	Darrang	0.547408
16	Bongaigaon	0.53761
17	Karimganj	0.535711
18	Golaghat	0.534902
19	Sivasagar	0.532479
20	Jorhat	0.516457
21	Lakhimpur	0.509032
22	Kokrajhar	0.498663
23	Dhemaji	0.489147
24	Dibrugarh	0.485009
25	Hailakandi	0.460156
26	Karbi Anglong	0.364895
27	Dima Hasao	0.138213

Source: Author's Compilation

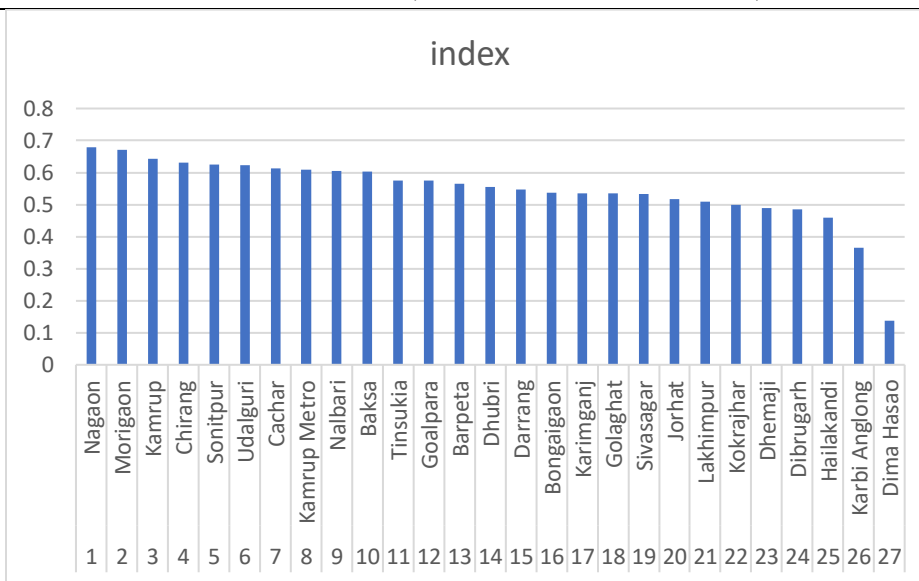


Table – 2: District Ranking of Assam in Education Level, 2015-16

Rank	District	Index
1	Tinsukia	0.79836
2	Sonitpur	0.74877
3	Nagaon	0.716748
4	Kamrup Metro	0.645359
5	Morigaon	0.635763
6	Bongaigaon	0.613396
7	Darrang	0.593975
8	Chirang	0.586423
9	Cachar	0.579801
10	Dhubri	0.566205
11	Dibrugarh	0.549556
12	Karimganj	0.54702
13	Goalpara	0.545251
14	Udalguri	0.524745
15	Barpeta	0.517804
16	Kamrup	0.512579
17	Kokrajhar	0.509638
18	Golaghat	0.50342
19	Nalbari	0.450271
20	Dhemaji	0.420521
21	Karbi Anglong	0.389746
22	Jorhat	0.383187
23	Lakhimpur	0.382698
24	Baksa	0.367307

25	Sivasagar	0.359092
26	Hailakandi	0.206573
27	Dima Hasao	0.097674

Source: Author's Compilation

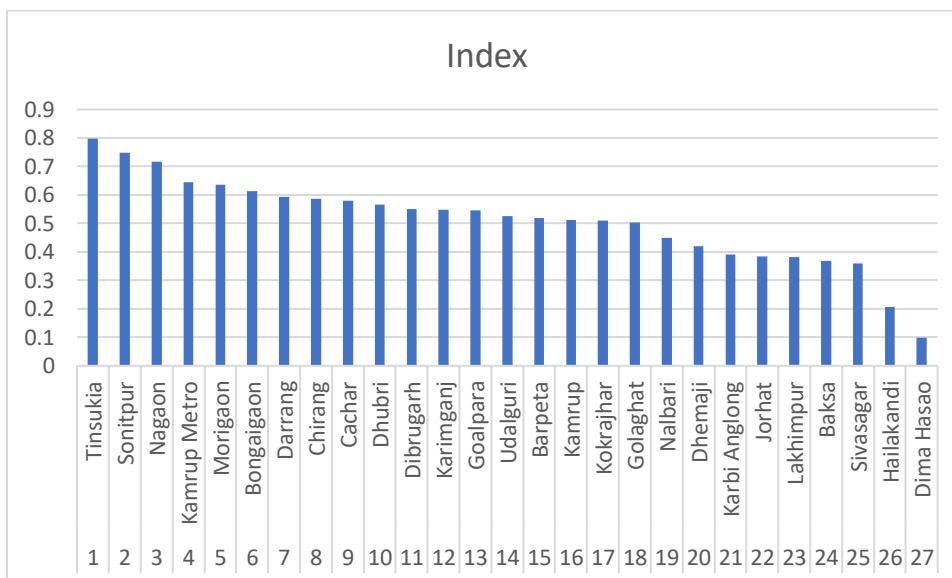


Table – 3: District Ranking of Assam In Education Level, 2016-17

Rank	District	Index
1	Tinsukia	0.742291
2	Dhubri	0.728398
3	Kamrup Metro	0.677814
4	Cachar	0.673254
5	Bongaigaon	0.664462
6	Morigaon	0.652411
7	Sonitpur	0.64117
8	Nagaon	0.638192
9	Chirang	0.635064
10	Udalguri	0.634201
11	Goalpara	0.623779
12	Kokrajhar	0.605521
13	Barpeta	0.603919
14	Darrang	0.601234
15	Kamrup	0.56294
16	Dibrugarh	0.546272
17	Golaghat	0.529686
18	Karbi Anglong	0.496929
19	Dhemaji	0.483606

20	Baksa	0.472435
21	Karimganj	0.46736
22	Nalbari	0.460338
23	Lakhimpur	0.456156
24	Jorhat	0.415068
25	Sivasagar	0.407348
26	Hailakandi	0.344015
27	Dima Hasao	0.20196

Source: Author's Compilation

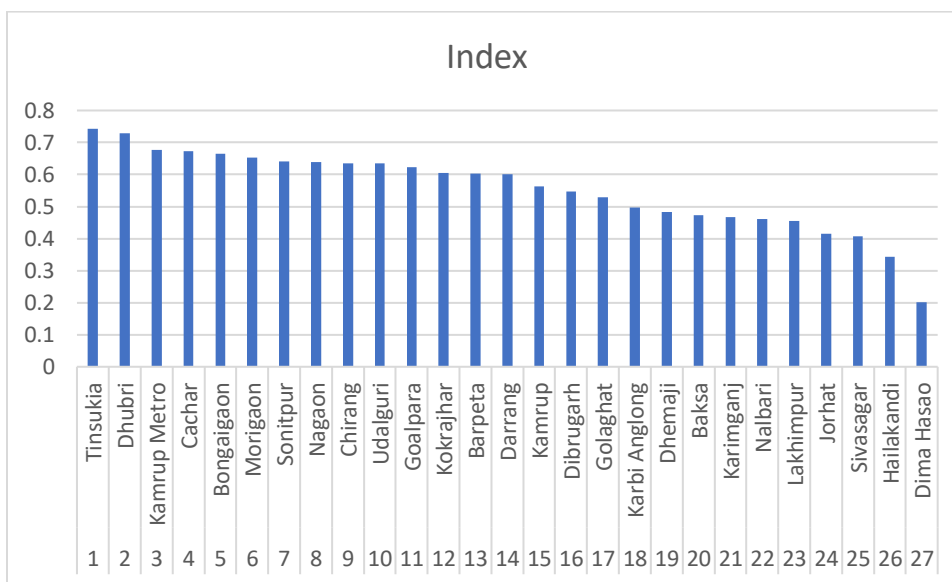


Table – 4: District Ranking of Assam in Education Level, 2017-18

Rank	District	Index
1	Kamrup Metro	0.735123
2	Sonitpur	0.679727
3	Bongaigaon	0.643615
4	Dhubri	0.625398
5	Tinsukia	0.624079
6	Hojai	0.623135
7	Barpeta	0.610045
8	Nagaon	0.603533
9	Darrang	0.590406
10	Cachar	0.566991
11	Kamrup	0.566706
12	South Salmara	0.566326
13	Udalguri	0.548156
14	Chirang	0.545045

15	Morigaon	0.539972
16	Golaghat	0.528993
17	Jorhat	0.527864
18	Nalbari	0.524497
19	Lakhimpur	0.513347
20	Charaideo	0.51056
21	Dibrugarh	0.498797
22	Goalpara	0.495856
23	Biswanath	0.492539
24	Dhemaji	0.492115
25	Karbi Anglong	0.490585
26	Karimganj	0.463891
27	Baksa	0.461947
28	Sivasagar	0.443779
29	West Karbi Anglong	0.407007
30	Kokrajhar	0.377439
31	Majuli	0.362513
32	Dima Hasao	0.277393
33	Hailakandi	0.253253

Source: Author's Compilation

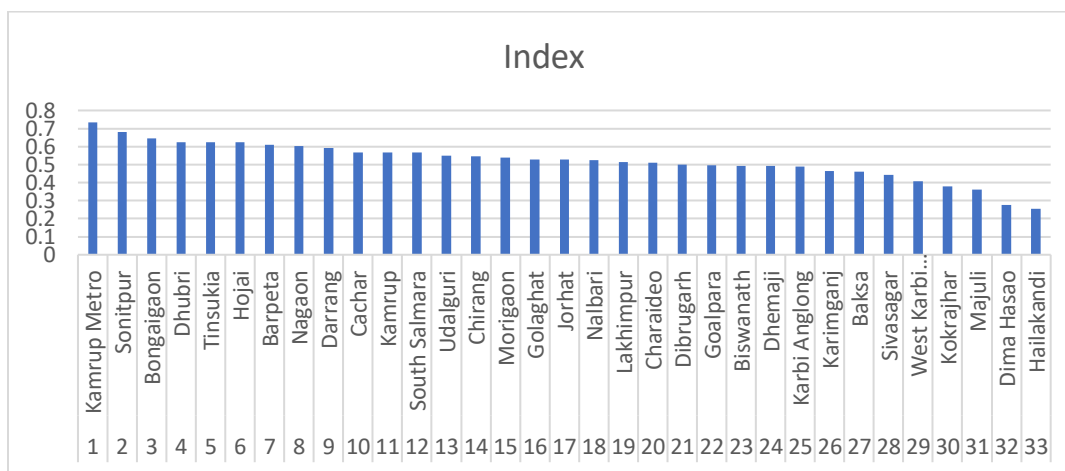


Table – 5: District Ranking of Assam in Education Level, 2018-19

Rank	District	Index
1	South Salmara	0.797547
2	Dhubri	0.791567
3	Hojai	0.779287
4	Sonitpur	0.712944
5	Kamrup Metro	0.70938
6	Bongaigaon	0.701652

7	Nagaon	0.682553
8	Tinsukia	0.680985
9	Darrang	0.638792
10	Cachar	0.62254
11	Morigaon	0.619544
12	Biswanath	0.611563
13	Goalpara	0.597761
14	Barpeta	0.591337
15	Chirang	0.546233
16	Karimganj	0.535411
17	Kokrajhar	0.524151
18	Kamrup	0.51907
19	Golaghat	0.514129
20	Udalguri	0.493396
21	Dibrugarh	0.4813
22	Charaideo	0.462912
23	Karbi Anglong	0.437353
24	Jorhat	0.423983
25	Nalbari	0.393119
26	Lakhimpur	0.385123
27	Baksa	0.368036
28	Dhemaji	0.366359
29	Sivasagar	0.357995
30	West Karbi Anglong	0.346424
31	Hailakandi	0.330458
32	Majuli	0.224984
33	Dima Hasao	0.168642

Source: Author's Compilation

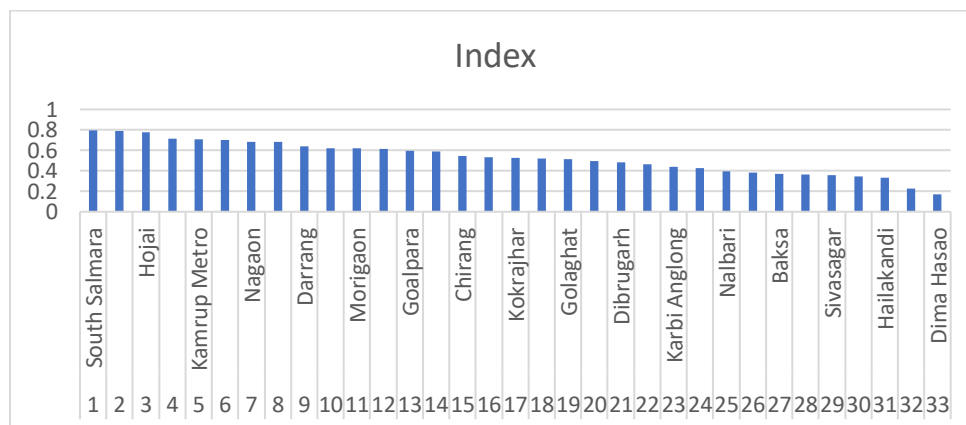


Table – 6: District Ranking of Assam in Education Level, 2019-20

Rank	District	Index
1	Dhubri	0.794952
2	Hojai	0.76537
3	South Salmara	0.74047
4	Kamrup Metro	0.730292
5	Sonitpur	0.719794
6	Bongaigaon	0.709179
7	Nagaon	0.666511
8	Goalpara	0.655944
9	Cachar	0.644857
10	Tinsukia	0.639053
11	Darrang	0.615703
12	Biswanath	0.609504
13	Barpeta	0.608079
14	Morigaon	0.602679
15	Chirang	0.592059
16	Kamrup	0.534313
17	Karimganj	0.527213
18	Udalguri	0.523489
19	Kokrajhar	0.522143
20	Golaghat	0.517478
21	Dibrugarh	0.515636
22	Charaideo	0.449184
23	Nalbari	0.429539
24	Jorhat	0.422415
25	Karbi Anglong	0.421486
26	Baksa	0.416944
27	West Karbi Anglong	0.41614
28	Sivasagar	0.406223
29	Lakhimpur	0.402371
30	Dhemaji	0.394477

31	Hailakandi	0.387016
32	Majuli	0.277246
33	Dima Hasao	0.221954

Source: Author's Compilation

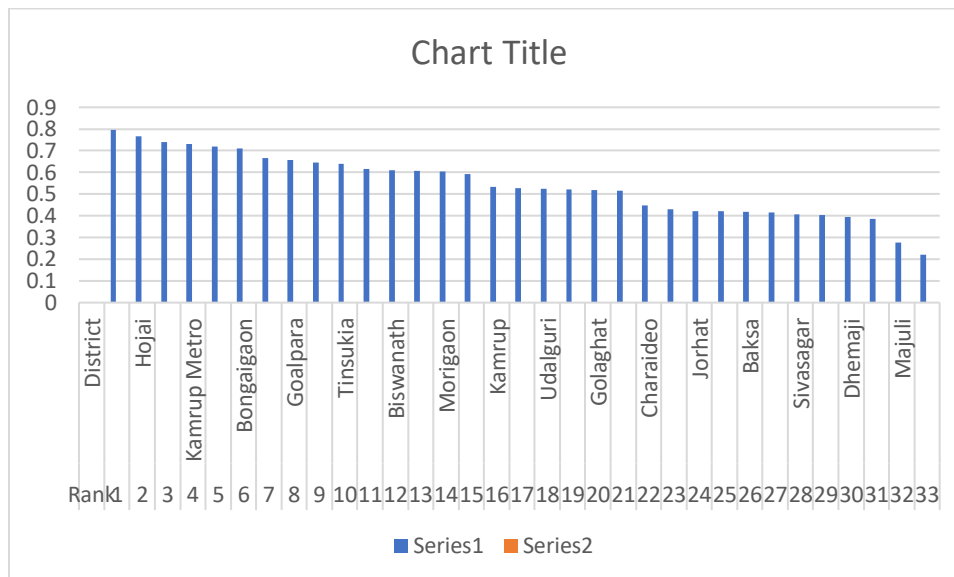


Table – 7: District Ranking of Assam in Education Level, 2020-21

Rank	District	Index
1	Kamrup Metro	0.788034
2	Dhubri	0.754169
3	Hojai	0.729508
4	Nagaon	0.719094
5	Sonitpur	0.716234
6	Bongaigaon	0.68333
7	South Salmara	0.674203
8	Tinsukia	0.665038
9	Darrang	0.64614
10	Goalpara	0.643551
11	Barpeta	0.624989
12	Morigaon	0.619874
13	Biswanath	0.613433
14	Kamrup	0.578676
15	Cachar	0.567929
16	Golaghat	0.547153
17	Dibrugarh	0.539534
18	Chirang	0.530439
19	Udaiguri	0.50285

20	Kokrajhar	0.49373
21	Karimganj	0.481701
22	Jorhat	0.481335
23	Karbi Anglong	0.47828
24	Charaideo	0.476507
25	West Karbi Anglong	0.474903
26	Sivasagar	0.470918
27	Nalbari	0.464067
28	Lakhimpur	0.461735
29	Dhemaji	0.453951
30	Baksa	0.434711
31	Hailakandi	0.349787
32	Majuli	0.31213
33	Dima Hasao	0.221795

Source: Author's Compilation

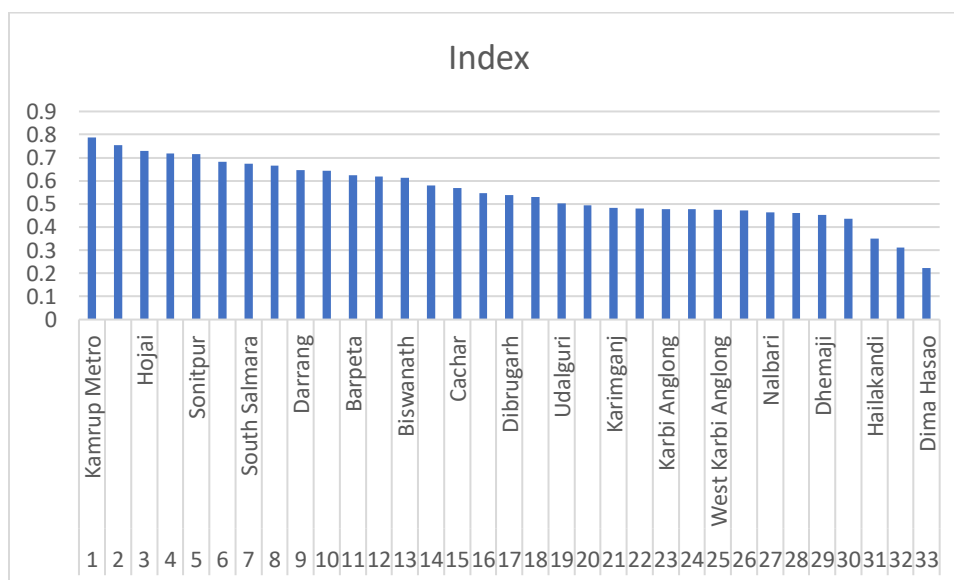


Table – 8: District Ranking of Assam in Education Level, 2021-22

Rank	District	Index
1	Kamrup Metro	0.808253
2	Dhubri	0.772469
3	Hojai	0.734512
4	Sonitpur	0.71485
5	Tinsukia	0.707391
6	Nagaon	0.702976
7	Darrang	0.681362
8	Bongaigaon	0.676894

9	Barpeta	0.671502
10	Morigaon	0.63799
11	Goalpara	0.623573
12	South Salmara	0.598193
13	Biswanath	0.597709
14	Cachar	0.583764
15	Chirang	0.582826
16	Golaghat	0.575266
17	Kamrup	0.542732
18	Udalguri	0.54187
19	Dibrugarh	0.524838
20	Nalbari	0.519787
21	Charaideo	0.517421
22	Karimganj	0.508512
23	Kokrajhar	0.502212
24	Lakhimpur	0.489824
25	Sivasagar	0.489787
26	Jorhat	0.484069
27	Bajali	0.458184
28	Tamulpur	0.454549
29	Karbi Anglong	0.442993
30	Dhemaji	0.435353
31	West Karbi Anglong	0.429107
32	Baksa	0.410345
33	Hailakandi	0.365257
34	Majuli	0.318559
35	Dima Hasao	0.250422

Source: Author's Compilation

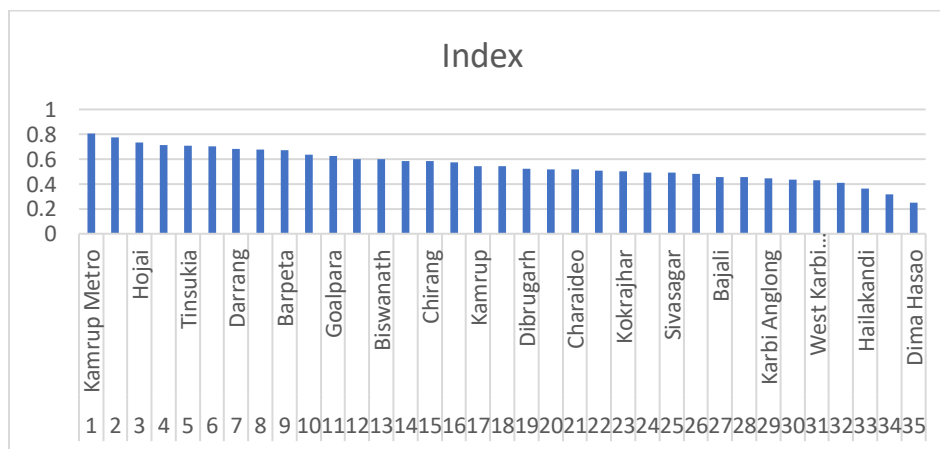


Table – 9: District Ranking of Assam in Education Level, 2022-23

Rank	District	Index
1	Dhubri	0.783505
2	Sonitpur	0.724332
3	Darrang	0.717283
4	Hojai	0.706072
5	Tinsukia	0.699169
6	Nagaon	0.698575
7	Kamrup Metro	0.694623
8	Biswanath	0.677233
9	Morigaon	0.646541
10	Goalpara	0.6392
11	Cachar	0.629478
12	Kamrup	0.629297
13	Barpeta	0.611415
14	Bongaigaon	0.60937
15	Dibrugarh	0.59755
16	Golaghat	0.595593
17	South Salmara	0.590546
18	Chirang	0.576008
19	Charaideo	0.560405
20	Sivasagar	0.550449
21	Jorhat	0.546345
22	Karbi Anglong	0.540658
23	Nalbari	0.539483
24	Udalguri	0.535861
25	Kokrajhar	0.533756
26	Lakhimpur	0.489355
27	Karimganj	0.483341
28	Baksa	0.46773
29	Dhemaji	0.46713

30	West Karbi Anglong	0.463651
31	Hailakandi	0.453988
32	Majuli	0.391274
33	Dima Hasao	0.30796

Source: Author's Compilation

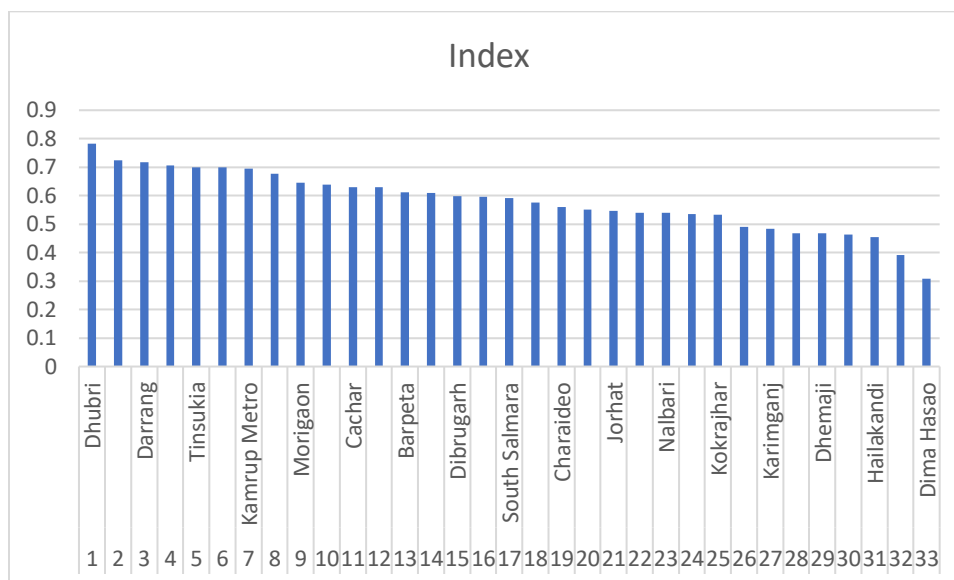
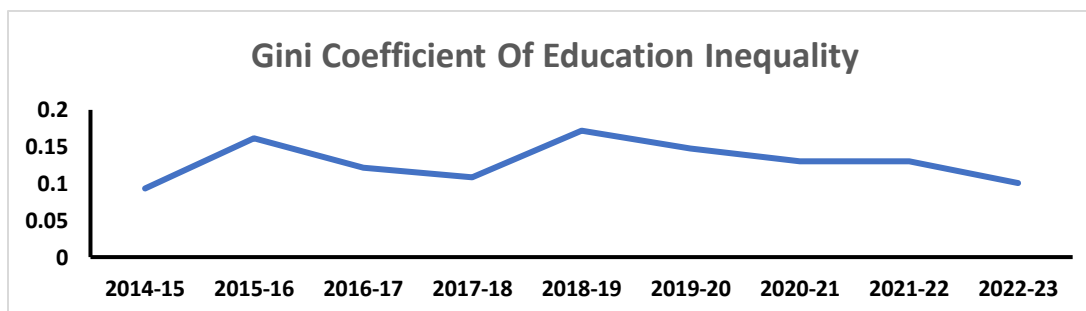


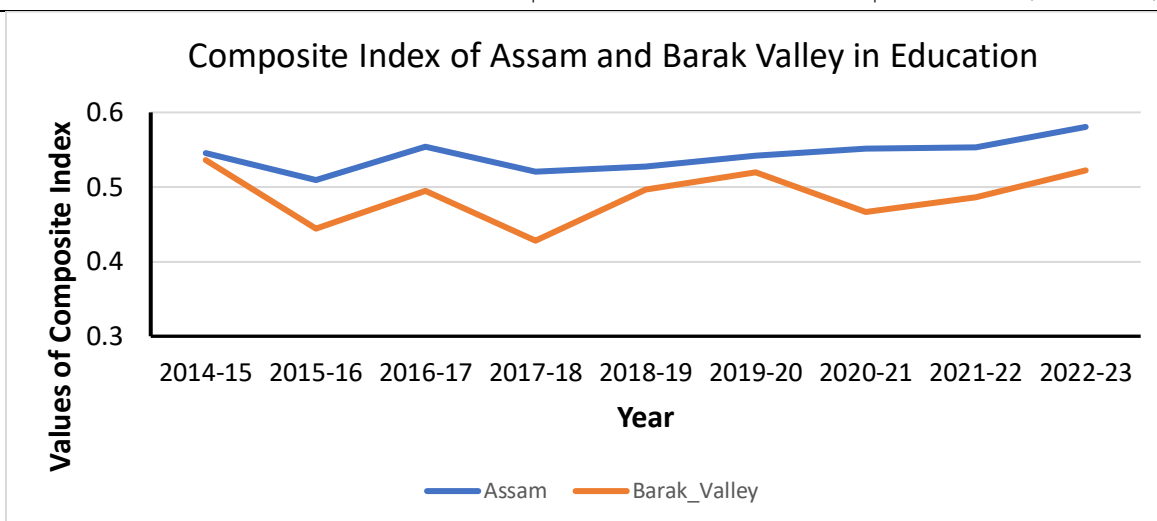
Table: 10 – Calculation of Gini Coefficient, Assam Education Index & Barak Valley Education Index

YEAR	GINI COEFFICIENT	ASSAM INDEX	BARAK VALLY INDEX
2014-15	0.09	0.54	0.53
2015-16	0.16	0.50	0.44
2016-17	0.12	0.55	0.49
2017-18	0.10	0.52	0.42
2018-19	0.17	0.52	0.49
2019-20	0.14	0.54	0.51
2020-21	0.13	0.55	0.46
2021-22	0.13	0.55	0.48
2022-23	0.10	0.58	0.52

Source: Author's Compilation



Source: Author's compilation



Source: Author's Compilation

IV. Findings:

From the above calculations and figures, it can be summarized that the relative educational status of the districts of Assam has changed over the years. Some of the districts that were performing at the top during the starting period 2014-15, were not able to hold their previous positions during the end period of the study 2022-23. The districts at the top rank during 2014-15 as per composite education index were Nagaon, Morigaon and Kamrup. But the scenario changed in the subsequent years and at the end period 2022-23, the top districts were Dhubri, Sonitpur and Darrang.

The Barak Valley Region, in particular is lagging behind in education in comparison to the state of Assam as a whole. A vibrant educational gap is observed in between Assam and Barak Valley as is shown from composite index calculation and diagrammatic representation. The lack of quality education among mass level of population in Barak Valley can be attributed to the following factors:

1. Family factors: A child's family environment, the education of their family members, and their socioeconomic status can all contribute to educational backwardness.
2. School factors: The quality of teaching, the curriculum, and the school environment can all contribute to educational backwardness.
3. Economic factors: Poverty, inadequate nutrition, and limited access to healthcare can all contribute to educational backwardness.
4. Social factors: Broken homes, divorce, and bullying can all contribute to educational backwardness.
5. Health factors: Poor health can lead to repeated absences from school, which can contribute to educational backwardness.
6. Psychological factors: Separation anxieties and other psychological factors can contribute to educational backwardness.
7. Learning disabilities: Learning disabilities can be caused by inadequate teaching, inappropriate materials, or an inappropriate curriculum.

V. Conclusion:

Education is an important aspect of socio-economic development of a nation. It is an area that every Government should give emphasis. Assam is one of the most significant north-eastern states and plays a crucial role in the overall growth and development of the region. Despite the state's strategic importance, the educational status of Assam is not up to the desired level. There are significant inter district variations in educational standard and opportunities in Assam. The Government must take note of these variations and ensure that every student has an equal chance to access quality education.

The Government should give emphasis to equal distribution of the educational resources. More resources should be distributed to the districts having lack of educational infrastructure. This will help to bridge the educational gap between the regions. In addition to this, the Government should hire a greater number of teachers in those districts with high enrolment to provide quality education. This will help to reduce student-teacher ratio so that every student receives adequate attention.

The development of educational scenario of Assam is of utmost importance not only for the state itself but for the entire north-eastern region and the country. By promoting equity in the distribution of educational resources, the Government can ensure quality education for all the students of the region.

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