Data Analysis On Relative Position In Public Spending On Education For Indian State (Gujarat)

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Abstract

The purpose of this article is to critically assess education sector of India's western state (Gujarat) by analyzing the education indicators and public spending. Further, it also compares the state's performance with other states, the major 18 states, EAG states, and non-EAG states to investigate the relative position. For the analysis, various education variables and four expenditure ratios proposed by UNDP (1991) were used. This article relies on secondary data from numerous government reports and organisations. Gujarat's performance in terms of income parameters is outstanding, with the state being in the top five. Nonetheless, in terms of education indicators, the state lags behind other economically sound and backward states. Gujarat falls short of ranking among the top 5 states in terms of education indicators. Gujarat ranks in the bottom three states on some of the variables. Public spending on education is also a major concern because the state doesn't devote enough resources to the sector. Analysis further reveals that state remained in the low levels of education spending throughout the taken time period. There is no significant change in the pattern of education spending despite lower performance on most of the education indicators. Gujarat doesn't follow the recommendations of various commissions suggesting 6%

allocation toeducation out of total income.

Keywords : Education, public spending, education expenditure, Gujarat, economic development.

I. Introduction

Gujarat's development model has been an ongoing focus of debate among policymakers and economists. Economic growth without human capital investment and social sector ignorance leads to unsustainable growth (Parwez, 2016). Education, as a merit Good, generates positive externalities or spillover benefits. Furthermore, it broadens people's options and opportunities. UNDP (1991) also recommends adequate spending on education and health. UNDP (2011) also mentioned the issue of educational inequality in India, which was the highest of any socioeconomic indicator. This article, however, does not go into detail about inter-state inequality and consequences.

Kalaiyarasan (2014) conducted a socioeconomic comparison of Tamil Nadu and Gujarat, stressing the importance of state intervention through the provision of essential public services in overtaking Gujarat. Policymakers must avoid the misalignment between higher economic growth and lower public spending on human development indicators such as education and health. A state cannot achieve higher, more sustainable economic growth unless it invests in people. According to Baxi (2016), higher economic growth and better social development in Gujarat appear contradictory. The demographic dividend's benefits can be optimised by investing in people's education and health. Hirway (2000, 2013) argued along the same lines, claiming that while Gujarat outperforms other states in terms of economic growth, it lags behind in terms of human development. Between 1981 and 2001, Gujarat's relative position in the HDI deteriorated. However, it was higher than the national average (Gopalkrishna and Rao, 2012).

Bhagwati and Panagariya (2013) distinguished between the private-investment-led modelin Gujarat and the government-induced public investment-led model in Kerala. Parikh (1996) addressed social sector development issues in Gujarat, specifically mortality and education. He contended that the

state's progress in these indicators has been modest. Other scholars' research is concerned about the state's relative position and performance in terms of education and other human development indicators (Runde et al, 2017; Nagaraj & Pandey, 2013; Chandhoke, 2012).

Analysis of public spending in education is certainly needed, as numerous empirical studies have found a positive relationship between public spending and educational outcomes, subject to spending quality. Various commissions and policies in India have also proposed spending 6% of GDP on education (Kothari Commission, 1966; Ramamurthy Committee, 1991; Delors Commission 1996; NEP, 2020). Gujarat's evaluation in terms of various education indicators and comparison with other states aids in understanding the development process. Furthermore, an examination of the pattern and trend of public spending on education allows us to determine whether the state is adhering to the recommendations of various commissions. A state with higher economic growth spends enough on its people; education, in particular, is a cause for concern. Furthermore, this article compares state's performance to the average of EAG and non-EAG states, allowing for comparative analysis and observation of the state's relative position. Numerous studies have addressed the issue of Gujarat's relatively poor performance in education indicators, and thus it provides space for further research into the state's relative performance in various education indicators and public spending on education.

II. Public Spending on Education

Policymakers are concerned about government education spending because it influences educational outcomes in the country. Policymakers debate the role of the state in providing quality education in the welfare state era, particularly following the COVID-19 outbreak. According to Becker et al. (1990), education spending is one of the most important factors in increasing per capita income. Sen (1999) discusses the problem of increased illiteracy and mortality and proposes appropriate policy intervention through social provision to address it. Several studies have found that increased spending on education and health results in more equitable income distribution and less poverty (Barro, 1991;

Chu, 1995; Tanzi and Chu, 1998).

Gallagher (1993) observed that education spending has a positive effect on educational attainment. He also brought up the issue of education spending quality and efficiency. Gupta et al. (2002) found a favorable effect of education spending on education and school attainment with regard to spending size and efficiency. Budgetary spending, according to Ahuja and Pandit (2020), generates multiplier effects and contributes to higher economic growth.

Patel and Annapoorna (2019) raised the issue of the disparity between education spending recommendations and actual spending. The 2015-16 Economic Survey also recommended increasing public spending on education and health. Tilak (2006) emphasised the importance of political will in allocating 6% of GDP to education. Furthermore, he is concerned about the system's absorptive capacity for making efficient use of the allocated resources. He also proposed complementary investment in industries other than education. Allocation to education can be increased by reallocating resources from other sectors, raising more resources, or both, he added.

Hirway (1995) addressed the problem of the state's inconsistent public expenditure on education and health, which resulted in poor performance on social indicators. Patel (1991) investigated intra-state inequality in terms of various socioeconomic indicators and proposed strong policy intervention to reverse the trend through public expenditure. Several studies have examined Gujarat's development model and found that social sectors such as education and health receive insufficient attention. Garg and Tripathi (2021) examined Gujarat and Kerala's performance on education indicators to address the issue of the quality of government spending. The state needs to reorient its policies by increasing public spending on health, education, women's empowerment, and skill development (Vishwanathan & Bahinipati, 2021).

Baxi (2019) examined Gujarat's performance on various human development indicators and human development spending, concluding that higher economic growth from

2004-05 to 2014-15 did not translate into higher human development spending. She brought up the issue of spending quality and policy design in order to improve the state's human development indicators. Dongre and Kapoor (2016) investigated India's public spending on elementary education. Between 2011-12 and 2014-15, Gujarat's spending on elementary education increased the most among the major 18 states, along with Tamil Nadu, Haryana, Uttar Pradesh, and Rajasthan. However, state's relative position in terms education indicators remained unchanged.

According to Chaurasiya (2018), the performance of the state's various districts, sub- districts, towns, and villages in terms of HDI has been largely average to low. Furthermore, no significant changes in residence and social class inequalities in human development were found by examining census 2011 data in Gujarat. He suggests policy interventions to eliminate inter- district disparities, which contributes to the state's higher human development.

III. Research Methodology

This article analyses the performance of the state in terms of various education parameters using secondary data collected from various reports published by the National Family Health Survey (NFHS), Government of India, RBI, Census of India, EPWRF, and other reports. In this study, I first examine Gujarat's performance on various education indicators, which aid in understanding the state's relative position over time. This article employs the bifurcation proposed by Burchi and De Muro (2016), which shows four categories of education indicators:input, output, outcome, and impact. In this article, the following indicators are used:

i. **Input indicators:** Pupil teacher ratio and public spending on education

ii. **Output indicators:** Net Enrolment Ratio (NER) and Drop Out Ratio (DOR) for variouslevels of schooling

iii. **Outcome indicators:** literacy rate and numeracy

iv. **Impact indicators:** unemployment rate, wage rate, Infant Mortality Rate (IMR) and Maternal Mortality Rate (MMR). They argue that, in dynamic system, educational

outcome works as inputs for health outcomes.

Furthermore, the state's performance in terms of income is compared to education parameters. This allows us to compare income growth to changes in education parameters. The analysis of public education spending is carried out by examining four ratios proposed by UNDP(1991) for the period 2012-13 to 2020-21. These four ratios are as follows:

i. **The Public Expenditure Ratio (PER):** % of national income for public expenditure. It is expressed as the total expenditure to NSDP at constant prices. NSDP data is gathered from the Handbook of statistics on Indian states published by RBI annually.
ii. **The Social Allocation Ratio (SAR):** % of public expenditure for social services. This shows how much expenditure is devoted to social services out of the total expenditure of the state.
iii. **The Social Priority Ratio (SPR):** % of social expenditure for human priority concerns. This ratio explains the amount allocated to education out of the total social expenditure.
iv. **The Human Expenditure Ratio (HER):** % of national income for human priority concerns.Here only education expenditure is considered and hence it is Education Expenditure Ratio (EER). This is a ratio of education expenditure to NSDP at constant prices.

UNDP (1991) emphasises the importance of per capita spending on social heads, so per capita spending on education is also examined in this study. EPWRF data is used to analyse the four expenditure ratios mentioned above. The state's relative position is determined by ranking interms of various education indicators across all states and UTs, as well as the major 18 states, which exclude UTs, special category states, and north-eastern states of India. In this study, SAR, SPR, and EER are computed using only education expenditure, and health expenditure is excluded to analyse the state's education expenditure pattern exclusively. Besides that, theperformance of the state is compared to the average of Empowered Action Group (EAG) states and non-EAG states. Out of the 18 major states, the former category

includes Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Orissa, Rajasthan, and Uttar Pradesh. The rest are non-EAG states.

IV. Gujarat's Economic and Education Profile

Gujarat outperformed other states on various income indicators between 2011-12 and 2020-21. Gujarat's per capita Net State Domestic Product (PCNSDP) at constant prices in 2020- 21 was Rs. 1.60 lakh, placing it third among all states. Gujarat has been the fastest-growing state in terms of CAGR for the last nine years, from 2011-12 to 2020-21. According to quick estimates for 2020-21, the state's share of national GDP was 8.36% and its share of total industrial output was 17.44% in 2018-19. Table 1 displays the ranking of Indian states in terms of NSDP and PCNSDP at constant prices, as well as their CAGR from 2011-12 to 2020-21.

Gujarat's NSDP has increased from Rs 3.36 lakh crore in 2011-12 to Rs 10.99 lakh crore in 2020-21, registering a compounded annual growth rate (CAGR) of more than 7%, the highest among major Indian states, followed by Karnataka and Haryana, which have CAGRs of 6.35% and 5.89%, respectively. Gujarat is also India's second-largest state, trailing only Maharashtra, which has an NSDP of Rs 16.53 lakh crore.

However, the state's NSDP and PCNSDP growth rates have been decreasing since 2017-18. Due to COVID-19-induced lockdowns, NSDP and PCNSDP decreased in 2020-21 comparedto the previous year, with negative growth rates of -1.3% and -2.6%, respectively. The state's position in terms of NSDP and PCNSDP has steadily improved over time. According to Parwez (2016), the state's contribution to India's rapid economic growth is remarkable, but it did not result in a significant reduction in the number of people living below the poverty line during the 1990s and 2000s.

Baxi (2019) observed that Gujarat's HDI and PCNSDP rankings did not move in the same direction between 1999-2000 and 2007-08. Rather, the state's relative position deteriorated as its HDI ranking fell from 9th to 10th and PCNSDP ranking rose from 7th to 5th. Gujarat's development was deemed

fragile by Dreze and Sen (2013) because higher economic growth did not result in proportionally better social outcomes. Let us now examine the state's performance across a variety of education indicators.

Table-1: Relative Performance of Indian States in terms of Economic Growth (Base-2011-12)

States	NSDP (Rs. Lakh) (2020-21)	Ranking	CAGR of NSDP (2011-12 to 2020-21)	PCNSDP (2020-21)	Ranking	CAGR of PCNSDP (2011-12 to 2020-21)
Andhra Pradesh	59386888	7	5.74	114324	9	5.18
Assam	19964620	17	4.44	57227	16	3.36
Bihar	34418298	14	4.18	28127	19	2.60
Chhattisgarh	21512630	16	4.22	72236	12	2.73
Goa	4642096	19	2.02	298527	1	1.41
Gujarat	109925860	2	7.51	160321	3	6.24
Haryana	48047051	11	5.89	165617	2	4.56
Jharkhand	19646721	18	3.64	51365	17	2.22
Karnataka	102687457	4	6.35	154123	4	5.50
Kerala	47227225	12	3.71	134878	7	3.25
Madhya Pradesh	49023764	10	5.67	58334	15	4.24
Maharashtra	165309396	1	3.91	133356	8	2.96
Odisha	32625281	15	4.80	71622	14	4.00
Punjab	35235716	13	3.95	112119	10	2.74
Rajasthan	58364495	8	3.97	74009	11	2.61
Tamil Nadu	109447112	3	4.96	143528	5	4.42
Telangana	53775329	9	5.16	143023	6	4.61
Uttar Pradesh	91001074	5	3.50	39371	18	2.09
West Bengal	70664833	6	4.09	72202	13	3.43

Source: Rankings and CAGR are computed by author from Handbook of Statistics on Indian States, RBI, 2022-23

Table 2 shows Gujarat's relative performance in terms of education indicators. Input indicators are also referred to as supply of education system. Focus on output indicators for immediate results of inputs, and changes in education indicators can be analysed by outcome or impact factors.

According to Flash Statistics 2021-22, the Pupil-Teacher Ratio

(PTR) in Gujarat was 31 and there were only 7 teachers per school. Pupil-teacher ratios are higher in economically backward states such as Chhattisgarh, Madhya Pradesh, and Rajasthan than in Gujarat. In Gujarat, only half of pre-primary school teachers are trained, which is lower than the national average of 67.6%. PTR improves with higher levels of education; however, PTR for all sections was lower than the national average. According to UDISE 2019-20, 70.6% of Gujarat's aided schools have an unfavourable pupil-teacher ratio under the Right to Education (RTE) Act.
Bihar, Chhattisgarh, Madhya Pradesh, Odisha, Punjab, Uttar Pradesh, and West Bengal, which are economically poorer than Gujarat, fare better in terms of aided schools. In 2020-21, over 6000 teacher, principal, and headmaster positions remained unfilled at all levels of education in Gujarat.

In 2021-22, the GER for secondary and higher secondary levels was 75.2% and 48.2%, respectively. These ratios were lower than the national averages of 79.6% and 57.6%. Gujarat is not among the top five states. In terms of GER for girls at each level of schooling, the scenario isshoddier. Secondary level GER exceeds 90% in Haryana, Karnataka, Kerala, Maharashtra, Odisha, Punjab, and Tamil Nadu. The state's relative position in terms of the Net EnrolmentRatio (NER) improved between 2012-23 and 2020-21. However, Gujarat fell short of the national average in NER for primary, upper primary, elementary, secondary, and senior secondary, with 88.6, 71.32, 90.54, 47.94, and 34.22, respectively. According to NFHS-5 (2019- 21), only 23.6 % of rural women have completed 10 or more years of schooling in Gujarat. Between NFHS-4 (2015-16) and NFHS-5, there is only a 0.8% point increase in this ratio from 33 % to 33.08 %. Again, Gujarat is not on the list of top 5 states.

Since 1951, the state's literacy rate has been increasing. It has risen from 21.82% in 1951 to 78.03% in 2011. Overall, the literacy rate in Gujarat increased by 8.89 percentage points between 2001 and 2011, rising from 69.14% to 78.03%. During the same time period, the national average increased by 8.15 percentage points, increasing from 64.84% to 72.99%. The male-female literacy rate gap has been decreasing since 1971, falling from 26.9 in 1971 to 16.1in 2011. Between 2001 and 2011, the male and female literacy rates increased by 6.1

and 11.9 percentage points, respectively. Since female literacy rates have risen faster than male literacy rates, the gender gap has narrowed. Another major source of concern is the rural-urban divide in literacy rates, as well as the disparities in literacy rates among various social groups. However, it is not covered in this article. According to the NSS 75th round, the literacy rate in Gujarat was 82% in 2018, which is higher than the national average of 77%.

Table 2: Relative Position of Gujarat in various education indicators			
Variable	Value (Year)	Rank (All states and UTs)	Rank (18 Major States)
Input Indicators			
Pupil Teacher Ratio (Primary)	30 (2021-22)	34	17
Pupil Teacher Ratio (Upper Primary)	30 (2021-22)	24	14
Pupil Teacher Ratio (Secondary)	29 (2021-22)	34	16
Pupil Teacher Ratio (Higher Secondary)	28 (2021-22)	27	09
Education Expenditure as % of GDP	2.54 % (2020-21)	--	17
Per capita Education Expenditure	Rs. 4296 (2022-23)	26**	13***
Output Indicators (2021-22)			
Net Enrolment Ratio (Primary)	77.05	29	18
Net Enrolment Ratio (Upper Primary)	65.89	25	15
Net Enrolment Ratio (Elementary)	82.43	26	16
Net Enrolment Ratio (Secondary)	45.42	25	13
Net Enrolment Ratio (Higher Secondary)	28.63	29	14
Net Enrolment Ratio (Higher Education)	22.20 (2020-21)	25	05
Drop out Ratio (Primary)	0	07	04
Drop out Ratio (Upper Primary)	4.95	30	15
Drop out Ratio (Secondary)	17.85	32	15
Outcome Indicators			
Literacy Rate	78.03 (2011)	17	05
Female Literacy Rate	69.68 (2011)	21	7####
Women with 10 or more years of schooling	33 (NFHS-5)	24	9
Foundation Literacy and Numeracy*	49.84	20	11
Impact Indicators			
Unemployment Rate per 1000 (Rural)	8 (2020-21)	3	1
Unemployment Rate per 1000 (Urban)	46 (2020-21)	6	3
Average Daily Wage Rate (Men-Construction Workers, Rural)	Rs. 285.1	NA#	13##
Average Daily Wage Rate (Men-General Agricultural Labourers)	Rs. 213.1	NA#	15##
Infant Mortality Rate (per 1000) (2020)	23	24	9
Maternal Mortality Rate (Per 1,00,000 live births)	70	NA#	7###

Source: Compiled by Author from UDISE+ 2021-22, EPWRF, Economic Survey 2022-23,
*Kapoor et al. (2021), Census 2011, Handbook of Statistics on Indian States, RBI 2021-22, NFHS-5, ** UTs are excluded, *** data on Chhattisgarh is not available, #data is not available for all states and UTs, ## For 15 major states, ### for 16 major states,
for 17 major states

However, only 11.4% of the population over the age of 15 in the state has completed higher secondary education, which is lower than the national average of 11.9%. Other states such as Haryana (16.2%), Maharashtra (15.6%), Karnataka (12.2%), and Tamil Nadu (15.1%) outperformed Gujarat. SBI (2019) constructed HDI for Indian states. Gujarat's HDI value was 0.67 in 2017, slightly higher than the national average of 0.61, placing the state 14th among all states and 8th among 14 major states. Furthermore, the state's relative position deteriorated between 1990 and 2017, falling two ranks. According to NSO data published in 2021, the state's Education Index (EI) improved from 0.499 to 0.535 between 2011-12 and 2017-18, but remained below the national average of 0.545 in 2017-18.

Table 3: State-wise Education Index in India (18 Major States)

States	2011-12		2017-18	
	EI	Rank	EI	Rank
Andhra Pradesh	0.427	17	0.464	17
Bihar	0.404	18	0.438	18
Chhattisgarh	0.498	12	0.522	11
Goa	0.654	1	0.684	1
Gujarat	0.499	11	0.535	10
Haryana	0.521	9	0.585	6
Jharkhand	0.47	15	0.498	14
Karnataka	0.529	7	0.564	9
Kerala	0.598	2	0.671	2
Madhya Pradesh	0.535	6	0.511	13
Maharashtra	0.598	3	0.631	4
Odisha	0.471	14	0.522	12
Punjab	0.542	5	0.64	3
Rajasthan	0.45	16	0.493	16
Tamil Nadu	0.591	4	0.621	5
Telangana	0.519	10	0.565	8
Uttar Pradesh	0.492	13	0.498	15
West Bengal	0.526	8	0.576	7
All India	0.515	--	0.545	--

Source: Gendering Human Development, NSO Working Paper

States with lower rankings on income parameters such as Kerala, Haryana, Karnataka, Punjab, West Bengal, and Tamil

Nadu, outperformed Gujarat in terms of EI. Gujarat's HDI, on the other hand, was higher than the national average due to high Income Index values (II). The state's relative position did not improve between 2011-12 and 2017-18, as it remained in the medium HDI category. Haryana, Karnataka, Kerala, Punjab, Tamil Nadu, and Telangana outperformed and were in the high HDI category.

Table 3 shows the education index (EI) and ranking of 18 major states. Between 2011-12 and 2017-18, Gujarat's position improved slightly, moving from 11th to 10th in terms of EI. However, the state's EI score in 2011-12 and 2017-18 was less than the national average of 0.515 and 0.545, respectively. During the taken period, no significant change in the relative position of states was observed. In both 2011-12 and 2017-18, Haryana, Karnataka, and West Bengal outperformed Gujarat in Female EI. The states were ranked 11th and 10th, respectively. The scenario is the same for male EI. Gujarat is not among the top ten performers. Furthermore, the state's EI for males in 2017-18 was 0.522, which was lower than the national average of 0.544.

V. Expenditure Ratios

In 2022-23, Gujarat has allocated 14.1% of its total expenditure to education. This is less than the average allocation for education (15.2%) made by all states (2021-22 BE). Education, sports, art, and culture have been allocated Rs. 38,403.15 crores in FY24, which is only 3.78% more than the revised estimate for FY23. The share of education expenditure in total expenditure has fallen from 15.1% in 2020-21 to 14.1% in 2022-23. It is further reduced to 12.94% in FY24. This is also lower than the national average. In contrast, in 2022-23, Bihar allocated 18.4% of total expenditure to education.

34.11
33.81
36.23
33.99

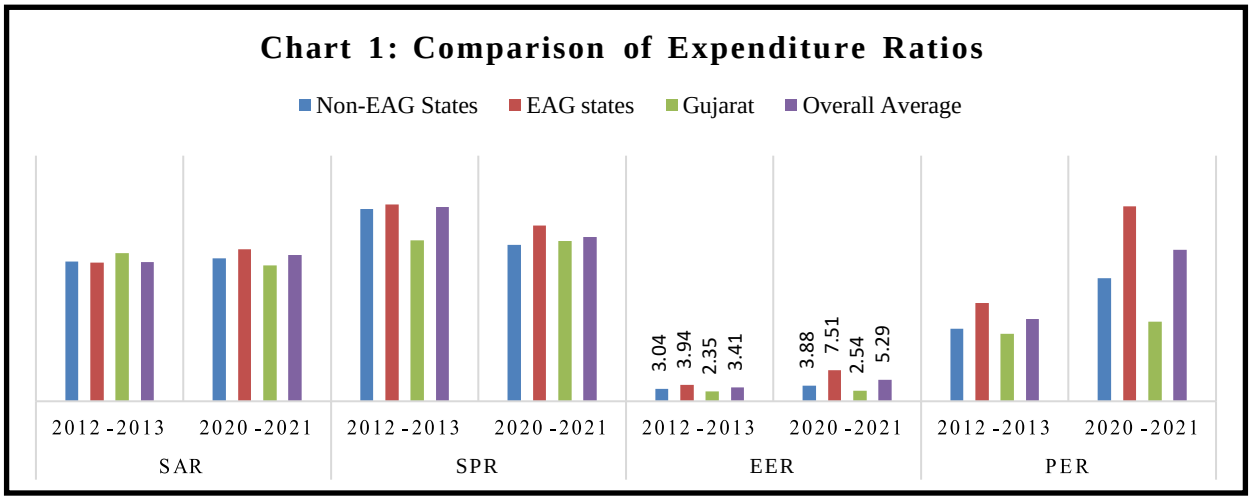
34.96
37.13
33.27
35.80

47.00
48.06
39.37
47.44

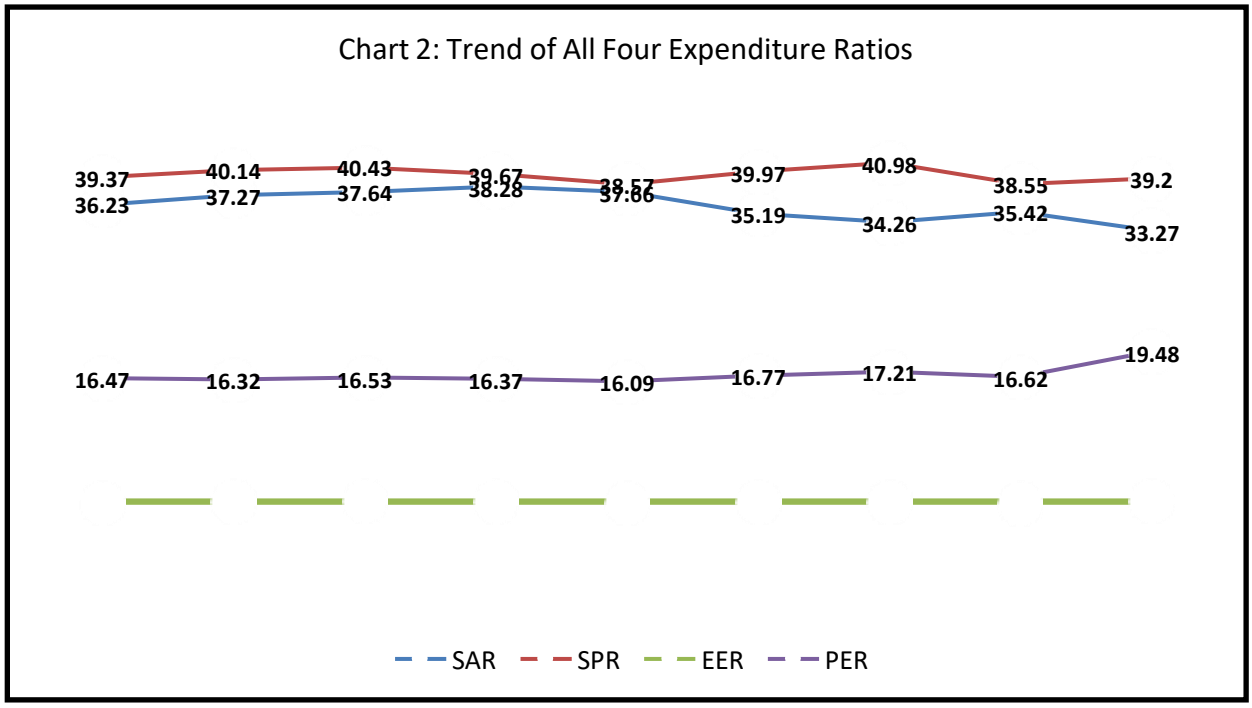
38.29
42.89
39.20
40.08

17.74
23.95
16.47
20.15

30.08
47.69
19.48
36.93



Source: Prepared by Author from EPWRF



2.35	**2.44**	**2.52**	**2.49**	**2.34**	**2.36**	**2.42**	**2.27**	**2.54**
2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021

Source: same as chart 1.

Four expenditure ratios are calculated to examine the state's pattern of education spending. Chart 1 compares the state to the average of EAG states, non-EAG states, and the overall average. When compared to EAG and non-EAG states, the state's performance in all four expenditure ratios is poor. The state's education spending as a percentage of NSDP (EER) was 2.54, which was lower than the average of the major 18 states and EAG and non-EAG states. Thetrend of all four ratios is depicted in Chart 2. In terms of expenditure ratios, there has been no significant change. This also indicates that the state's pattern of education spending has not changed over the period, despite relatively poor performance in almost all education indicators.

Tables 4 and 5 show all four ratios for 18 major states, as well as their rankings. According to UNDP, states are also divided into three categories: high EER, medium EER, and low EER (1991). Gujarat spends less than 3% of its NSDP on education, putting it in the low EER category. Out of their total NSDP, all other major states spent more than Gujarat. The state's relative position in EER has not changed, with it ranking 17th among the major 18 states in 2012-13 and 2020-21. Average of EER for selected 18 states was 5.29, much higher than state’s EER.

Table 4: Expenditure Ratios for 18 major states of India (%) (2021-22)				
States	EER	PER	SAR	SPR
High Levels of Education Expenditure Ratio-above 5 %				
Bihar	10.57	65.51	45.60	35.38
Chhattisgarh	8.58	44.37	37.30	51.85
Uttar Pradesh	7.12	55.26	32.01	40.26
Jharkhand	6.86	43.96	36.94	42.26
Madhya Pradesh	6.57	40.05	37.57	43.63
Rajasthan	6.51	38.68	38.70	43.52
Goa	6.46	44.23	36.81	39.67
Orissa	6.33	45.98	31.76	43.33
West Bengal	5.17	32.50	35.56	44.70
Medium Levels of Education Expenditure Ratio-between 3% and 5%				
Kerala	4.4	32.53	28.53	47.42
Andhra Pradesh	4.25	31.23	54.30	25.05
Maharashtra	3.97	26.26	33.93	44.59
Tamil Nadu	3.80	27.45	31.53	43.95
Punjab	3.66	33.71	24.05	45.11
Haryana	3.58	26.35	36.16	37.56
Low Levels of Education Expenditure Ratio-Below 3%				
Karnataka	2.69	23.12	31.17	37.34
Gujarat	2.54	19.48	33.27	39.20
Telangana	2.21	34.00	39.22	16.61
Average of selected 18 states	5.29	36.92	35.80	40.08
Source: Computed by Author from EPWRF and Handbook of Statistics on Indian states, RBI 2021-22				

Baxi (2019) examined these ratios from 2004-05 to 2015-16, taking into account both health and education spending. Her estimations show that the average education expenditure to social expenditure ratio (SPR) for Gujarat during the studied period was 41.05 %. SPR has shown a downward trend between 2012-23 and 2021-22. It reduced to 38.58 from 39.37. However, the state's ranking has been improved by 3 places as it moved from 16th to 13th from 2012-13 to 2020-21. Jharkhand, Odisha, Uttar Pradesh, Madhya Pradesh and Rajasthan have better SPR than Gujarat. EER was 2.35 in

2012-13 which marginally improved to 2.54 % in 2020-21. BIMARU states also spend more out of their income than Gujarat as shown by the higher EER for Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh.

PER shows a rising trend from 16.47 % in 2012-13 to 19.48 % in 2020-21 meaning higher public expenditure out of the total income of the state. Surprisingly, the state's ranking has deteriorated in PER from 14th to 18th. All other major states have higher PER than Gujarat. Ahigher PER would give space to increase the EER. On the contrary, Karnataka has a higher PER than Gujarat but EER is almost the same. This makes the case for the reallocation of budgetary fund in favour of education. Bihar, Chhattisgarh, Uttar Pradesh, Jharkhand and Madhya Pradesh have PER of more than 40%.

Table 5: Ranking in terms of Expenditure Ratios for 18 major states of India

States	PER		SAR		SPR		EER	
	2012-13	2020-21	2012-13	2020-21	2012-13	2020-21	2012-13	2020-21
Andhra Pradesh	1	13	12	1	17	17	2	11
Bihar	2	1	6	2	1	16	1	1
Chhattisgarh	5	4	5	6	10	1	4	2
Goa	6	5	13	8	8	12	7	7
Gujarat	14	18	3	12	16	13	17	17
Haryana	16	15	10	9	13	14	16	15
Jharkhand	8	6	16	7	7	10	11	4
Karnataka	15	17	9	16	12	15	14	16
Kerala	11	11	14	17	3	2	10	10
Madhya Pradesh	3	7	15	5	14	7	5	5
Maharashtra	17	16	1	11	4	5	12	12
Orissa	7	3	11	14	11	9	8	8
Punjab	12	10	17	18	2	3	13	14
Rajasthan	9	8	8	4	9	8	9	6
Tamil Nadu	13	14	4	15	15	6	15	13
Telangana	--	9	--	3	--	18	18	18
Uttar Pradesh	4	2	7	13	5	11	3	3
West Bengal	10	12	2	10	6	4	6	9

Source: Same as table 4. Data on NSDP at constant prices for 2021-22 for all states is not available on RBI and hence ranking is available for the year of 2020-21.

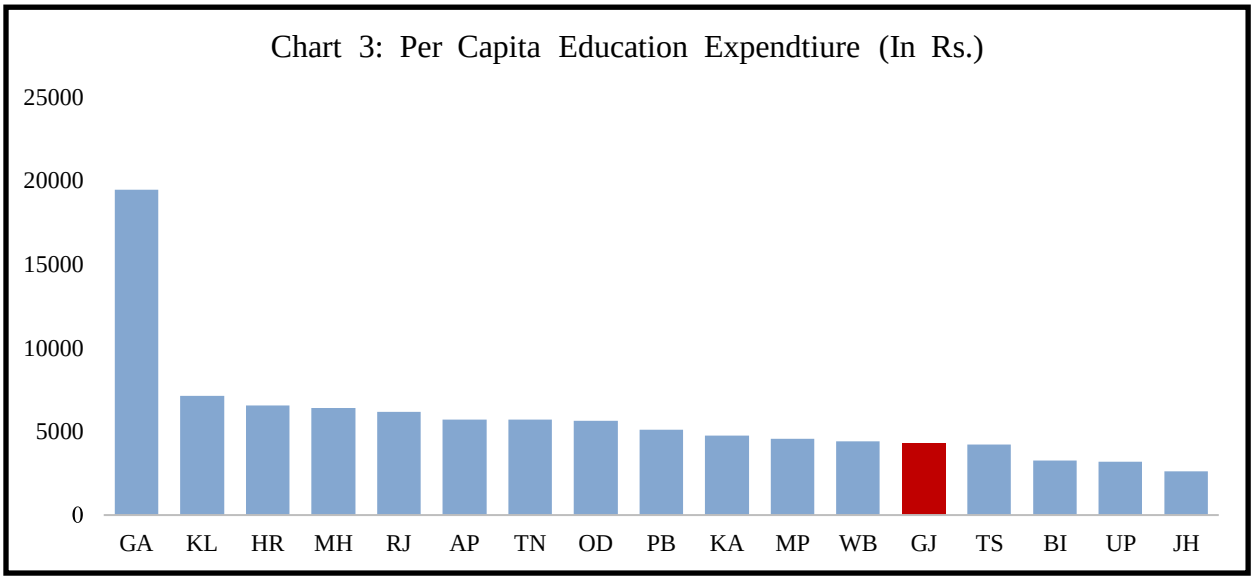
In 2012-13, Gujarat ranked third in SAR, with a higher

allocation for social services out of overall public spending than other states. However, it fell to 12th in 2020-21, showing a reduced priority for social services in terms of overall public expenditure. For economically deprived states like Bihar, Chhattisgarh, Jharkhand, and Madhya Pradesh, SAR showed better performance than Gujarat. Andhra Pradesh, Bihar, and West Bengal invested more than 40% of total expenditure on social services in 2021-22, while Gujarat spent just 33.08%.

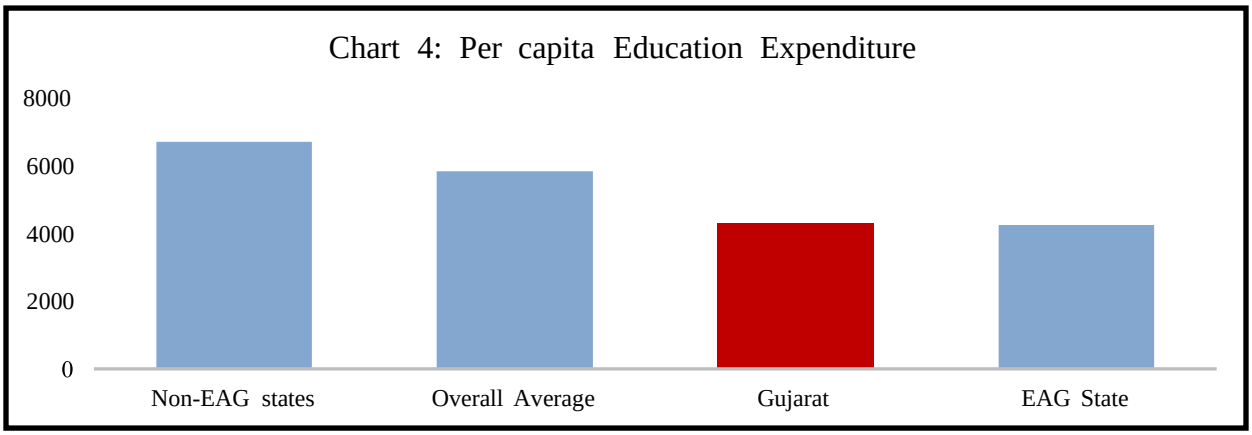
Table 6: Relative positions of 18 major states in EER

	High Levels of EER	Medium levels of EER	Low Levels of EER
2012-13	Bihar	Andhra Pradesh, Uttar Pradesh, Chhattisgarh, Madhya Pradesh, West Bengal, Goa, Orissa, Rajasthan, Kerala, Jharkhand	Maharashtra, Punjab, Karnataka, TamilNadu, Haryana, Gujarat
2020-21	Bihar, Chhattisgarh, Uttar Pradesh, Jharkhand, Madhya Pradesh, Rajasthan, Goa, Orissa, West Bengal	Kerala, Andhra Pradesh, Maharashtra, Tamil Nadu, Punjab, Haryana	Karnataka, Gujarat, Telangana

Source: Same as table 4.



Source: Prepared by the author from State of State Finances, PRS, 2022



Source: same as chart 1.

According to Baxi (2019), the ten-year average of education spending to social expenditure ratio (2004-05 to 2013-14) was 41.05%. This decreased to 39.36% from 2014-15 to 2021-22. Nonetheless, Gujarat's relative standing has improved as it has risen from 16th to 13th place. SPR is higher in Jharkhand, Odisha, Madhya Pradesh, Rajasthan, and Uttar Pradesh than in Gujarat. SPR should be enhanced if the PER and SAR are comparatively larger but the human effect remains low (UNDP, 1991). According to budget forecasts for 2023-24, education expenditure accounts for 38.15% of overall social expenditure, indicating no major change.

Chart 3 depicts the major 17 states' per capita education spending. The chosen states' average per capita spending was Rs. 5834.71, with Gujarat ranking 13th in terms of per capita education expenditure at Rs. 4296. Even Rajasthan (6158 Rs.) and Madhya Pradesh (4569 Rs.) spend more than Gujarat.

The state's per capita spending is much lower than the average of larger states (for states with more than 2 crore people), which is at Rs. 5300. Baxi (2016) examined the real per capita education spending of Indian states and found that the ten-year average (2004-05 to 2013-14) was Rs. 1077, with Gujarat ranking sixth out of 16 major states. Gujarat's per capita education spending is somewhat higher than the EAG average but much lower than the non-EAG average and overall average. Even with Goa as an outlier, the state's spending is still lower than the non- EAG average and the general average.

According to the UNDP's 1991 HDR report, many developing countries have greater PER but lower SAR. If such a situation emerges, the budget must be evaluated in order to enhance social expenditure while decreasing other budgetary commitments. The government should increase education expenditure in line with NEP 2020, which suggests spending 6% of GDP on education. Hirway (2014) raised the problem of sacrificing social development goals in order to achieve a faster rate of economic growth in the state.

VI. Conclusion

This article examines Gujarat's status in relation to other states in terms of educational metrics and government spending. Gujarat performs exceptionally well in terms of income indicators like NSDP and per capita NSDP, and its relative position has increased throughout the course of the selected time. Nevertheless, higher income performance is not reflected in larger public spending on education or in education indicators. Higher economic growth should theoretically result in more money being set aside for social spending and better results for social indicators. However, Gujarat defies this hypothesis (Parwez, 2016). Even while the state's relative standing in other indicators hasn't altered much, its performance in impact indicators is surprisingly

better. When it comes to the majority of education metrics and public spending, Gujarat does not rank in the top 5. If the state's educational performance is compared to that of EAG and non-EAG states, it is rather dismal. Gujarat falls under the non-EAG category but spends less on per capita education than the average of non-EAG and EAG states. For the share of education spending on NSDP, the state's relative position has not changed considerably. Beinga state that spends only 2.54% of its income on education, Gujarat continues to fall into the low- spending group. In comparison to the average of the selected 18 major states, this ratio is much lower. Baxi (2019) also brings up the problem of Gujarat's human development policy design because some other states had identical expenditure ratios but still outperformed Gujarat in terms of education metrics. Consequently, mere spending would not help to improve education in the state but the quality of spending plays a significant part in describing the real benefits of education spending and its impact on education parameters. The state's poor performance on education-related metrics shows that economic growth will not automatically improve the educational situation, which explains why the trickle-down effect and sheer growth-oriented market-based policies on social indicators did not work.

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