

Analysis of Social Expenditure and Human Development Performance of Gujarat

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Abstract

The paper examines relative position of Gujarat on economic and human development indicators over a period of ten years from 2004-05. It then compares state government's priorities for human development in terms of budgetary allocation to social sector in general and education and health sector in particular over the ten years period using expenditure ratios and per capita social sector expenditure. The study observes that although there is an improvement in the relative position with respect to economic growth, in many of the human development indicators there is a deterioration in the relative position of Gujarat among 16 Indian states. Paradoxically, the study finds that the state is certainly not lagging behind in terms of the budgetary allocation to social sector. The per capita social sector expenditure is almost similar to states who are better performers with respect to human development. The paper concludes that budgetary allocations certainly do not reflect the lower priorities of state government and hence may not be responsible for lower ranking on human development. The study suggest furthering examining the possible arguments for the paradox.

Key Words: Human Development, Social Expenditure, state's budgetary allocation, Gujarat

Introduction

Gujarat is one of the most economically advanced states of India contributing around 7.3 % to India's GDP (2015-16) with 4.9 % share in population. Average annual growth rate of GSDP of Gujarat was estimated to be 14.18 % during 2004-05 to 2013-14. The state ranked among top five economically advanced states. However, the social development indicators for Gujarat have not kept pace with the development in the economic indicators (Kalaiyarasan A, 2014). The progress of Gujarat, particularly, in health and education was disappointing despite its high economic growth (Hirway Indira, 2013).

When a state like Gujarat with high economic growth lags in social development, the paradox needs to be examined. In the Indian federal structure, states play a critical role for the social development. More than 80 per cent of combined government expenditure in these areas being incurred by the states, the necessary public interventions is largely at the state level. (RBI, 2013). This consequently raises the questions whether Gujarat is allocating sufficient financial resources for its social development or not. Is Govt of Gujarat spending less on social development in comparison to other high income states and high human

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development states such as Tamil Nadu, Kerala or Maharashtra? This study is an attempt to explore the relative economic and social sector performance of Gujarat over a period of ten years. It then examines the state government's priorities as revealed by budgetary allocation to social sector in general and to health and education in particular. In this way, an attempt has been made to provide a comparative analysis of states' allocation of financial resources to the social sector and examine, whether social sector is a lower priority for Gujarat, as compared to other states.

The paper is divided into five sections. Section I reviews the existing literature. Section II describes the methodology adopted. Section III examines economic and social development of Gujarat. Section IV studies social sector expenditure pattern of Gujarat compared to other major states and in section V the paper tries to draw certain policy conclusions.

Section I Literature Review

The existing literature suggests a positive relationship between economic growth and human development among Indian states. There is observed a strong association between economic growth and human development of India states (see Ghosh, 2006 and Sacchidananda Mukherjee et al, 2014). Dr. C Rangarajan (2014) in his paper "Economic growth and social development – synergies or contradictory?" discuss whether government expenditure on social sectors by themselves ensure better social development. The study found a strong rank correlation between income index and health & education index. However, correlation between state govt. expenditure index and health & education index is observed to be poor. Reserve Bank of India (RBI state finances, 2013) measured the impact of per capita social sector expenditure of states on Human Development Index for the period 1993-94 to 2006-07 using the double log regression function. The study suggest that to reap the benefits of demographic dividend, the country's human resources need to be strengthened and this calls for higher per capita social sector expenditure by Indian states.

The studies pertaining to Gujarat's economic and social development paradox, argue that root cause of low social progress lies in policy choice and development priorities of the state government. According to Hirway Indira, Gujarat became one of the fastest growing states in the country precisely by ignoring or even sacrificing major development goals. The policy frame has been one of exclusion rather than social inclusion (Hirway, Indira, 2014). A comparative study of development model of Gujarat and Tamil Nadu (see Devin K. Joshi & Kathleen Mc Gratha, 2015) points out that Gujarat's development trajectory appears especially lopsided. The study concludes that the implementation of government policies as a manifestation of political ideology and the quality of public administration play a defining role in explaining Gujarat's more lopsided and Tamil Nadu's more balanced human development trajectories . The studies that analyze the expenditure of Gujarat state have mostly concluded that the state's expenditure policy have had serious

implication for the deterioration in the human development indicators. The study of education indicators of Gujarat and the various social sector expenditure ratios for the period 1991 to 2007-08 brings out that there is a diminishing social role of the government in Gujarat. (Ghosh, 2012). A study on health care expenditure (Sharma S, 2012) of Gujarat state from, 1990 to 2010 also points out that the health care expenditure as a share of total expenditure of the state is lower than the all states average and much lower than that of Tamil Nadu and Maharashtra. The state finance reports (RBI, 2013-14 and 2014-15) bring out that Gujarat has failed to improve its expenditure allocation to social sector. An article in Business Line (Vijayaraghavan N, 2018) notes that with reference to economic indicators such as private investment, business reforms, and contribution to India's GDP, Gujarat is among the leaders or achievers. The state is also doing well in achieving fiscal stability. However, it lags most other States in social sector spending. Observing the percentage share of social sector expenditure of Gujarat in the total budget, the articles points out that Gujarat has prioritized attaining a certain degree of fiscal stability at the expense of social development. In the process it lags Karnataka in fiscal stability and peer States like Andhra Pradesh, Karnataka, Tamil Nadu and Telengana in social development. The studies examining states' social sector expenditure mainly examine and compare the relative share of social sector expenditure in the total state budget or the social sector expenditure as a percentage of states' domestic product. However, due to the differences in the size of state's budget and state's domestic products, what is critical to observe is the amount of social sector expenditure per person in the state and not just the relative share. Also considering the differences in the price level across states over a period of time, this study examines both nominal and real Per Capita Expenditure on Social Sector of Indian states.

Section II Methodology

It is observed in the literature that studies have analyzed human development performance of Indian states, using the HDI from India Human Development Report – UNDP which was last published in 2011. This study also first examines the relative position of Gujarat's HDI and compares it with the economic indicator using Real Per Capita NSDP for the year 1999-2000 and 2008-09. It then observes the change in the relative position of Gujarat in terms of Economic and Human Development during this period. However, the last HDI available is only for the year 2008-09. Hence it is essential to study the overall economic and social development performance of Indian states and observe the relative standing the Gujarat in the recent time. Thus the next effort in this paper is to examine the status of economic and human development of Indian states using various indicators, rank them based on their performance and observe relative standing of Gujarat. 16 Indian states have been selected for the study and their economic and social development is examined for the period from 2004-05 to 2013-14ⁱ.

The economic growth of states is assessed using Real Per Capita NSDP (base, 2004-05 prices). The human development performance of states is examined by taking various indicators from health and education sector for the years, 2005-06 and 2015-16ⁱⁱ. Each state is ranked for individual indicator. The indicators have been selected based on availability of comparable and reliable indicators across the states and time, the public services where states intervention is more critical and dominant and also capturing the indicators across the categories of input, output and outcome indicators. In the recent literature regarding the measurement of human development, Francesco Burchi & Pasquale De Muro (2015) prepared a conceptual framework for classification of human development indicators. The study, adopts a similar framework for classification of human development indicators listed in the table 1 below.

Table 1 Classification of Indicators

	Health Indicators	Education Indicators
Input indicators	Govt hospitals per lakh population	Pupil Teacher Ratio Primary – All School
	No. of beds per lakh population	Primary school sections per thousand projected child population (6 to 11 years)
	No. of PHC per one lakh rural population	Upper primary schools per thousand projected child population (11 to 14 years)
	No. of CHC per one lakh rural population	
Output indicators	Percentage of Household Using Improved Sanitation	Gross Enrolment Ratio Primary
	Institutional birth	Gross Enrolment Ratio Upper Primary
		Net Enrolment Ratio Primary
		Net Enrolment Ratio Upper Primary
Outcome indicators	Life expectancy at birth	Women with 10 or more years of schooling
	Infant Mortality Rate	literacy rate
	Children age 6-59 months who are anemic	
	Sex ratio at birth	

In addition to the above indicators, the education development index estimated and published by National University of Educational Planning and Administration (NUEPA), and MHRD department of school education and literacy, Government of India is also being studied. This index is available for every year since 2005-06. 24 indicators are used thereby to compute education development index for each state. These indicators are classified into four major components namely access, infrastructure, teacher and outcome. The component wise index and also consolidated index value for the year 2005-06 and 2014-15ⁱⁱⁱ have been considered here, and accordingly 16 states are ranked to observe the relative performance of Gujarat.

For analyzing the state's expenditure policy in terms of budgetary allocation to social sector, most of the studies that are reviewed have used Human Expenditure Ratios^{iv} suggested by UNDP - Human

Development Report 1991. However, the report itself notes that “What probably matters more than the human expenditure ratio is human development spending per person in absolute terms” (UNDP, HDR 1991). Hence this study also uses the per capita social sector expenditure adjusted with inflation. There are five indicators examined in this study. (i) Percentage of total expenditure devoted to social sector and health & education sector^v (human priority). (ii) Percentage of social expenditure devoted to human priority. (iii) Percentage of states income that goes to social sector and human priority sector. (iv) Per capita real expenditure on social sector and human priority sector. To capture budgetary allocation of states during all the ten years of the study, the average of ten years (2004-05 to 2013-14) is calculated for each indicator for each state rather than only comparing the ratio for the initial year and the last year. The social expenditure^{vi} in India is broken into revenue and capital expenditure. Until recently, the social expenditure was also broken into plan and non-plan expenditure. For this study, the revenue and capital expenditure have been added and total social expenditure is taken. Also, instead of analyzing plan and non-plan expenditure separately, the total social expenditure has been analyzed.

Section III Economic and Social Development Performance of Gujarat

This section first estimates rank correlation coefficient between the HDI and Per Capita NSDP (constant price) of 22^{vii} Indian states for two distinct periods 1999-2000 and 2007-08 (Table 2). Rank correlation coefficient value for the year 1999-2000 is 0.91 and for 2007-08 it is 0.79. This indicates a strong positive association between the economic performance and human development among Indian states. However, while examining the specific case of Gujarat, one does not observe the HDI and NSDP ranks moving in the same direction from 1999-2000 to 2007-08. Although the value of HDI for Gujarat improved slightly from 0.466 in 1999-2000 to 0.527 in 2007-08, its relative position dropped down from 9th to 10th rank. Whereas the rank for the economic performance of Gujarat improved from 7th in 1999-2000 to 5th in 2007-08. This implies that while Gujarat’s rank on economic growth improved, its human development rank in fact fell. Certainly it is a matter of concern particularly since Gujarat ranked among the top five economically robust states.

Table 2 Ranks of State based on Economic and Human Development Indicator

STATES	1999-2000		2007-08	
	PC NSDP Rank	HDI Rank	PCNSDP Rank	HDI Rank
Andhra Pradesh	12	14	11	14
Assam	17	16	19	15
Bihar	22	18	22	20
Chhattisgarh	18	20	14	22
Delhi	2	1	2	2
Goa	1	3	1	4
Gujarat	7	9	5	10
Haryana	5	6	3	8
Himachal Pradesh	6	4	7	3
Jammu and Kashmir	13	10	16	9
Jharkhand	19	22	18	18

Karnataka	10	11	10	11
Kerala	8	2	6	1
Madhya Pradesh	16	19	20	19
Maharashtra	4	7	4	6
Orissa	20	21	17	21
Punjab	3	5	8	5
Rajasthan	15	13	15	16
Tamil Nadu	9	8	9	7
Uttar Pradesh	21	15	21	13
Uttarakhand	14	17	13	17
West Bengal	11	12	12	12

Source: HDR – India, 2011 and EPWRF for PCNSDP

Note: PCNSDP 2007-08 at the price of 2004-05

For analyzing the states' economic performance upto more recent time, Table 3 provides the ranking of states based on Per Capita NSDP at constant prices (2004-05) for the fiscal year 2004-05 and 2013-14. It is evident that Gujarat outperformed many states as far as economic growth is concerned. Its relative position significantly improved from 6th rank in 2004-05 to 3rd rank in 2013-14. Further, the CAGR of Per Capita NSDP (Constant) for Gujarat during the same period is observed to be second highest at 7 % following Tamil Nadu with 7.56 %. Tamil Nadu also improved its position from 7th rank to 4th rank with respect to real Per Capita NSDP.

Table 3 Ranking of States Based on Per Capita NSDP (constant)

States	2004-05		2013-14	
	PCNSDP (in ₹) (Constant)	Rank	PCNSDP (in ₹) (Constant)	Rank
Andhra Pradesh	25959	9	42170	9
Assam	16782	13	23392	14
Bihar	7914	16	15506	16
Gujarat	32021	6	63168	3
Haryana	37972	1	67260	2
Himachal Pradesh	33348	3	54495	6
Karnataka	26882	8	46012	8
Kerala	32351	5	58961	5
Madhya Pradesh	15442	14	26853	12
Maharashtra	36077	2	69097	1
Odisha	17650	12	24929	13
Punjab	33103	4	49529	7
Rajasthan	18565	11	31836	11
Tamil Nadu	30062	7	62362	4
Uttar Pradesh	12950	15	19233	15
West Bengal	22649	10	36293	10

Source: EPW research Foundation time series.

Note: 2004-05 series is used for NSDP constant

Table 4 provides the ranks of Gujarat state among 16 selected states based on the performance across various health indicators for the fiscal year 2005-06 and 2015-16. It is evident from table that in case of percentage of ‘household using improved sanitation’ Gujarat ranked third for both the years. Life expectancy at birth and IMR are two indicators where there is a marginal improvement by one rank from 2005-06 to 2015-16. For all the other health indicators the relative position of Gujarat worsened. What is critical is that not only in case of outcome indicators but also in case of input indicators, the relative position of Gujarat has deteriorated. An indicator, ‘availability of government hospital per one lakh population’ observed a reduction in the value itself (from 0.99 to 0.64). Two of the outcome indicators’ value namely ‘children age 6-59 months who are anemic’ and ‘sex ratio at birth’ indicate the poor performance compared to all India average.

Table 4 Gujarat’s Rank Based on Health Indicators

Indicators	2005-06		2015-16	
	Value	Rank	Value	Rank
Input Indicators				
Govt hospitals per lakh population	0.99 (0.68)	5	0.64 (1.62)	11
No. of beds per lakh population	69.18 (45.66)	7	46.21 (62.33)	9
No. of PHC per one lakh rural population	3.37 (3.13)	7	3.59 (3.04)	8
No. of CHC per one lakh rural population	0.86 (0.45)	2	0.92 (0.65)	6
Output Indicators				
Percentage of Household Using Improved Sanitation	44.2 (29.1)	3	79.2 (48.4)	3
institutional birth	52.7 (38.7)	6	88.7 (78.9)	7
Outcome Indicators				
Life expectancy at birth	66.4 (2004-08) (65.4)	9	68.2 (2009-13) (67.5)	8
Infant Mortality Rate	50 (57)	9	34 (41)	8
Children age 6-59 months who are anemic	69.7 (69.4)	10	62.6 (58.4)	12
Sex ratio at birth [@]	906 (2001) (914)	9	907 (2011) (919)	11

Source: RBI Handbook of Statistics on Indian States 2015-16, NFHS reports: 4, 2015-16 Rural Health Statistics, MHFW, GoI, 2005-06 & 2015-16.

Note: @ Census India 2001 & 2011 data.

Figures in the bracket indicate value of All India Average

Niti Aayog, in February 2018 released a report titled “Healthy States, Progressive India”. It is the first such attempt to compile, measure and compare states’ performance in health sector by preparing a comprehensive health index. The report presents states’ health index for two consecutive year, 2014-15

and 2015-16. It is a weighted composite index of around 23 indicators classified in three domains (i) outcome (ii) Governance and Information and (iii) Key Inputs/Process. The report categorize Gujarat state as an ‘achiever’ with the overall rank assigned to the state as Four. It is surprising to observe that with respect to input domain the state ranks 5th and with respect to governance and information domain the state ranks 2nd and 3rd respectively, whereas Gujarat ranks low in outcome domain. The state’s rank is 10 out of 21 Indian major states. The performance of Gujarat for outcome domain as noted in the Niti Aayog report is similar to our study.

Table 5 Gujarat’s Rank Based on Education Indicators

Indicators	2005-06		2015-16	
	Value	Rank	Value	Rank
Input Indicators				
Pupil Teacher Ratio Primary – All School	35 (36)	11	19 (24)	7
Primary school sections per thousand projected child population (6 to 11 years)	7	9	7	12
Upper primary schools per thousand projected child population (11 to 14 years)	7	5	9	7
Output Indicators				
Gross Enrolment Ratio Primary	100.3 (103.77)	8	97.24 (99.21)	11
Gross Enrolment Ratio Upper Primary	49.91	11	95.73 (92.81)	6
Net Enrolment Ratio Primary	78.89 (84.53)	12	82.46 (87.3)	11
Net Enrolment Ratio Upper Primary	36.64	11	73.35 (74.74)	10
Outcome Indicators				
literacy rate*	69.14 (65)	6	78.03 (74)	5
Women with 10 or more years of schooling #	23.5 (22.3)	8	33 (35.7)	10

Source: DISE flash statistics: Elementary education in India Progress towards UEE NUEPA 2004-05 and 2015-16, NFHS report 3 and 4

Note: * Census India 2001 and 2011 data.

Figures in the bracket indicate value of All India Average

The relative position of Gujarat among Indian states with respect to education indicators is given in table 5. It is observed that in case of pupil-teacher ratio and GER in upper primary there is an improvement in the relative standing of Gujarat. Literacy rate and NER in primary sector exhibited improvement although by one rank. Two indicators from input category, ‘school per thousand projected child population’ both in primary and upper primary and one each in output and outcome categories, ‘GER in primary education’

and ‘women with 10 or more years of schooling’ demonstrated a deterioration in the state’s performance. As regards to the value of the GER and NER in primary and women with 10 or more years of schooling, the state registers a poor performance as compared to all India average performance.

Table 6 gives index values for Gujarat state as estimated by NUEPA and District Information System for Education (DISE). The rank for Gujarat is derived from comparing the educational development index values of 16 selected states. The composite indicator shows an improvement for Gujarat from 7th position to 4th position following Himachal Pradesh, Karnataka and Tamil Nadu. However, in case of index of the component, access^{viii}, the performance has deteriorated from 5th position to 14th position. In access component, not just the rank, but also the index value dropped significantly.

Table 6 Educational Development Index (All school-All management)

Indicators	2005-06		2014-15	
	Index	Rank	Index	Rank
Access	0.541	5	0.147	14
Infrastructure	0.674	7	0.874	5
Teacher	0.62	3	0.875	3
Outcome	0.556	10	0.726	11
Consolidated	0.632	7	0.681	4

Source: Elementary education in India: Progress towards UEE NUEPA 2006-07 and 2014-15

While examining the relative performance of Gujarat across health and education indicators, it is observed that excluding one indicator each from health and education, i.e. ‘Percentage of Household Using Improved Sanitation’ from output category and ‘literacy rate’ from outcome category, the state fails achieve the position among top five performers. The other immediate inference is that the state has perhaps performed relatively better in education sector than the health sector.

Section IV Social Sector Expenditure of Gujarat

This section analyzes the pattern of social sector expenditure of 16 Indian states with a view to understand the relative position of Gujarat. Table 7 provides ten years average value of relative share of social sector expenditure, education expenditure and health expenditure in the total state’s expenditure. The table also provide ten years average value of relative share of education and health expenditure in the total social sector expenditure of the states. The purpose of examining the percentage share of social expenditure in total allocation is to observe the relative priorities of states in terms of expenditure policy or budgetary allocation. For all states in India, expenditure on health is a lower priority than education. The table clearly

indicates that Gujarat and Tamil Nadu have a similar pattern of expenditure across all the components. Kerala's share of health expenditure in total social expenditure is the highest at 14.69 % followed by Punjab (14.29). In case of share of education expenditure in social expenditure, Assam is at highest with 58.51 % share followed by Kerala (56.41 %) and Bihar (56.37 %).

The social expenditure ratio reflects the relative contribution to a particular sector and hence with relatively less share also the absolute amount spent on social sector may be much higher. With lower value in the base, the high ratio may not imply high absolute value. Assam although is allocating 58.51 % in education, the actual amount spent on education was only ₹ 840 lakhs in the year 2013-14 while that of Gujarat was ₹ 1567 lakh during the same year having 41 % share of education expenditure in the social expenditure.

**Table 7 Share of Social Expenditure Components in Percentage
(Average of ten years from 2004-05 to 2013-14)**

States	Share of Social Expenditure in Total expenditure	Share of education expenditure in total expenditure	Share of health expenditure in total expenditure	Share of Education expenditure in social expenditure	Share of health expenditure in social expenditure
Andhra Pradesh	10.61	3.97	1.11	37.65	10.43
Assam	6.71	3.98	0.70	58.51	11.50
Bihar	8.97	5.03	0.86	56.37	9.86
Gujarat	8.40	3.45	0.81	41.05	9.60
Haryana	10.44	4.81	0.91	45.85	8.70
Himachal Pradesh	11.07	5.57	1.47	50.08	13.19
Karnataka	8.56	3.97	0.88	46.39	10.21
Kerala	8.55	4.83	1.26	56.41	14.69
Madhya Pradesh	7.00	3.08	0.79	44.08	11.22
Maharashtra	11.94	6.27	1.09	52.57	9.05
Orissa	8.17	3.86	0.77	47.61	9.29
Punjab	9.15	5.10	1.30	55.50	14.29
Rajasthan	8.98	4.15	0.94	46.37	10.46
Tamil Nadu	8.02	3.31	0.79	41.51	10.00
Uttar Pradesh	5.38	2.66	0.68	49.42	12.98
West Bengal	8.23	4.12	0.95	50.42	11.68
Average of selected 16 states	8.76	4.26	0.96	48.74	11.07

Source: Estimated from EPW research foundation time series.

The social expenditure as a percentage of states' income is also an indicator to assess states' expenditure policy and understand how important the social development is for the state economy. Gujarat's social expenditure as percentage of its NSDP is around 5.5 % (see table 8) similar to that of Kerala, Maharashtra and Tamil Nadu. However it is slightly lower than the all states' average. Himachal Pradesh is spending

11.5 % of its NSDP in the social sector, highest among all states. It is important to note here that this is the state that had dropped from 3rd rank to 6th rank during this ten years as far as economic performance is concerned. Thus, higher share of social expenditure in the total budgetary allocation or the state's income does not necessary reflect higher amount of money spent on an individual citizen of a state.

**Table 8 Share of Social Expenditure in NSDP (Percentage)
(Average of ten years from 2004-05 to 2013-14)**

States	Share of social expenditure in NSDP	Share of education expenditure in NSDP	Share of health expenditure in NSDP
Andhra Pradesh	10.73	4.02	1.12
Assam	8.92	5.21	1.03
Bihar	9.44	5.29	0.93
Gujarat	5.50	2.25	0.53
Haryana	4.87	2.23	0.42
Himachal Pradesh	11.49	5.74	1.51
Karnataka	6.46	2.98	0.66
Kerala	5.53	3.11	0.81
Madhya Pradesh	7.12	3.14	0.79
Maharashtra	5.04	2.65	0.46
Orissa	7.24	3.44	0.67
Punjab	4.12	2.29	0.59
Rajasthan	7.44	3.44	0.78
Tamil Nadu	6.02	2.50	0.60
Uttar Pradesh	7.77	3.82	0.99
West Bengal	5.83	2.92	0.67
Average of selected 16 states	7.10	3.44	0.79

Source: Same as table 7

With the purpose of examining the amount of financial resources made available for the social development for an individual in the state, the study estimates per capita social expenditure, education expenditure and health expenditure. The NSDP deflator is used for the conversion of nominal expenditure into real expenditure. The per capita expenditure is taken as the average of ten years, from 2004-05 to 2013-14 and also of the recent five years from 2009-10 to 2013-14. Tables 9.1 and 9.2 provide the data of ten years and five years average of real per capital social expenditure and the rank associated with that. The data indicate that Gujarat's rank is 4 and 3 respectively in case of ten years and five years average per capita health expenditure among total 16 states. The states is one rank behind Tamil Nadu and Kerala.

**Table 9.1 Per Capita Social Expenditure at constant prices (2004-05 prices)
(Average of ten years from 2004-05 to 2013-14) (In 20**

States	Per capita social expenditure Real	Rank	Per capita education expenditure Real	Rank	Per capita health expenditure Real	Rank
Andhra Pradesh	2202	8	824	12	230	8
Assam	1765	11	1032	8	207	10
Bihar	1006	16	560	16	96	16
Gujarat	2629	5	1077	6	259	4
Haryana	2633	4	1208	4	229	9
Himachal Pradesh	5016	1	2529	1	659	1
Karnataka	2276	7	1045	7	233	7
Kerala	2552	6	1433	3	377	2
Madhya Pradesh	1484	14	658	14	164	13
Maharashtra	2743	2	1443	2	246	6
Orissa	1642	13	778	13	150	15
Punjab	1816	10	1006	9	259	5
Rajasthan	1850	9	857	10	194	12
Tamil Nadu	2710	3	1124	5	271	3
Uttar Pradesh	1294	15	634	15	162	14
West Bengal	1714	12	853	11	195	11
Average of selected 16 states	2208		1066		245	

Source: Same as table 7

Note: Per capita expenditure is estimated based on the projected population from census 2001 and 2011

**Table 9.2 Per Capita Social Expenditure at constant prices (2004-05 prices)
(Average of Five Years 2009-10 to 2013-14) (in ₹)**

States	Per capita social expenditure Real	Rank	Per capita education expenditure Real	Rank	Per capita health expenditure Real	Rank
Andhra Pradesh	2606	8	988	11	276	9
Assam	2037	11	1194	7	261	10
Bihar	1200	16	648	16	102	16
Gujarat	3267	4	1344	6	345	3
Haryana	3167	5	1464	4	279	7
Himachal Pradesh	5553	1	2952	1	739	1
Karnataka	2680	7	1192	8	276	8
Kerala	3116	6	1728	3	465	2
Madhya Pradesh	1838	14	830	14	193	13
Maharashtra	3347	2	1779	2	293	6
Orissa	1966	13	929	13	173	14
Punjab	2087	10	1166	9	298	5
Rajasthan	2033	12	964	12	217	12
Tamil Nadu	3321	3	1386	5	341	4
Uttar Pradesh	1553	15	751	15	169	15
West Bengal	2134	9	1039	10	229	11
Average of selected 16 states	2619		1272		291	

Source: Same as table 7

Along with the real per capita expenditure, the study also compare the per capita expenditure in nominal terms for further validation. Table 9.3 gives the five years average^{ix} of per capita social expenditure, education expenditure and health expenditure in nominal terms. In nominal terms also Gujarat's relative standing is not very different than the expenditure in real terms. Gujarat ranks 5th with respect to per capita social expenditure. It ranks 4th with respect to per capita health expenditure and 6th with respect to per capita education expenditure, just a rank behind Tamil Nadu.

**Table 9.3 Per Capita Social Expenditure at current price
(Average of Five Years 2009-10 to 2013-14) (in ₹)**

	per capita social expenditure	Rank	per capita education expenditure	Rank	per capita health expenditure	Rank
Andhra Pradesh	4414	8	1685	12	467	7
Assam	3382	13	1995	7	428	10
Bihar	2119	16	1146	16	179	16
Gujarat	4956	5	2039	6	527	4
Haryana	5525	2	2544	4	489	6
Himachal Pradesh	8535	1	4543	1	1135	1
Karnataka	4458	7	1992	8	463	8
Kerala	4859	6	2693	2	727	2
Madhya Pradesh	3026	14	1366	14	318	13
Maharashtra	5070	4	2693	3	445	9
Orissa	3546	10	1655	13	312	14
Punjab	3493	12	1953	9	501	5
Rajasthan	3677	9	1732	10	393	11
Tamil Nadu	5296	3	2206	5	540	3
Uttar Pradesh	2610	15	1263	15	281	15
West Bengal	3533	11	1715	11	377	12

Source: Same as table 7

The per capita expenditure on social sector clearly indicates that Gujarat is not an outlier in the allocation of financial resources to the social development. The relative share of social sector expenditure may be lower than few Indian states but in case of the absolute amount spent, Gujarat is at par with the states that are better performers with respect to economic growth and human development.

Section V Conclusion

The analysis in section III points out that the economic performance of Gujarat observed a noteworthy growth with respect to per capita NSDP during 2004-05 to 2013-14, the state moved upward from 6th to 3rd position. Consequently, the benefits of economic growth should be apparent in the form of improvement in human development. However, the improvement in the human development is disappointing as observed across several human development indicators. Gujarat's performance on human development reveal that in seven out of ten health indicators the ranks have deteriorated during 2005-06 to 2015-16.

Two of the ranks observed an improvement by moving one rank upwards. With regards to performance in education sector also the four out of nine indicators show decline in the ranking of Gujarat. The human development performance of Gujarat is less impressive than states like Tamil Nadu, Maharashtra or Kerala. While Tamil Nadu observed an improvement in its economic performance, the human development indicators also improved in parallel as the rank of the state improved across all the selected health and education indicators. Although Gujarat could not have a similar achievements in human development as compared to the top five performers, there isn't observed any disparities in allocation of financial resources for social development. The public expenditure ratio, social allocation ratio or social priority ratio of Gujarat is not significantly different than other better performer states. Infact the state ranks among the top five with respect to per capita social sector expenditure.

The above inference raises the question that if Gujarat's expenditure policy towards social sector is almost similar to states that experienced improvement in human development than why such improvement in the human development is not observed in case of Gujarat. It is evident that almost equal amount of financial resources are made available for human development in Gujarat as other states and despite of this Gujarat experienced a deterioration in relative position for various human development indicators. There are few possible arguments explaining this paradox. One possibility is the issue with respect to program and policy design. The action plan or the design of the various programs related to education and health may be less effective. This include, identification of beneficiaries or implementing agencies, program structure and objectives etc. The resource allocation for such programs may not provide the desired results and there can be a problem of non-productive utilization of financial resources. The second possible argument may be of lopsided development with the concentration of efforts and financial resources to only few districts or talukas or section of the society. Such lopsided development programs create greater social disparity and may bring down the overall human development performance of a state. The third possibility can be an inefficiency in implementation of development programs at various stages. This may result into an inefficient utilization of financial resources or the leakages. However, before arriving at any conclusion or inference, these possibilities need to be examined in detail with the strong evidence. An in-depth analysis or comparative analysis of development programs and their designing may help explain the paradox. It is essential to evaluate the implementation of various human development programs and carry out social auditing. If this paradox is not studied in detail and is not addressed, merely increasing the budgetary allocation to social sector will not help improve the human resource base in Gujarat.

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ⁱ The time period in this study is restricted upto the year 2013-14 to make the series comparable as in the year 2014, India adopted the new series – 2011-12 for the national income estimation.

ⁱⁱ The NFHS reports which is the major source of health indicators for this study provide data for 2005-06 and 2015-16. Hence all the other human development indicators of both health and education are taken for the year 2005-06 and 2015-16 to maintain the comparability. However the economic indicators and fiscal performance is done for the period under study i.e. 2004-05 to 2013-14

ⁱⁱⁱ The 2015-16 EDI is not available.

^{iv} The public expenditure ratio: the percentage of national income that goes into public expenditure (ii) The social allocation ratio: the percentage of public expenditure earmarked for social service. (iii) The social priority ratio: the percentage of social expenditure devoted to human priority concerns. (iv)The human expenditure ratio: the percentage of national income devoted to human priority concern.

^v Education & sports and medical & public health, receive more than 50 % of social expenditure of Indian states and hence these two sector are considered as Human Priority sector in this paper.

^{vi} As per the concurrent list, the social sector expenditure of states in India include, expenditure on (a) education & sports, (b) medical & public health, (c) family welfare, (d) water supply & sanitation, (e) housing, (f) urban development, (g) welfare of schedule castes, (h) labour and labour welfare, (i) social security and welfare, (j) nutrition, (k) relief on account of natural calamities etc.

^{vii} HDR 2011 includes 23 states with North East states' combined human development performance but this study compares HDI of only 22 states and exclude North East states due to unavailability of combined Per Capita NSDP of North East States.

^{viii} The access component includes variables such as density of schools per 10 sq km, availability of schools per 1000 child population, and ratio of primary to upper primary school/sections.

^{ix} The ten years average of per capita expenditure in nominal terms is also calculated. Gujarat ranks 5th in case of per capita social expenditure and health expenditure. It ranks 8th in case of per capita education expenditure.