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# INTER-STATE IMBALANCES IN ESSENTIAL SERVICES: SOME PERSPECTIVES

C. Bhujanga Rao and D.K. Srivastava



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## **Abstract**

This paper analyzes the inter-state imbalances in three major sectors of the economy, namely, education, health and family welfare, and water supply and sanitation for fifteen major states. It uses two principal indicators namely the per capita GSDP (reflecting the disparity in fiscal capacity in various states) and per capita government expenditures on priority sectors, reflecting how fiscal capacities are translated into differences in government fiscal intervention in providing services.

The study shows that the GSDP of six major states - Bihar, Uttar Pradesh, Orissa, Assam, Madhya Pradesh and Rajasthan grew only at below 5 percent during the study period 1993-94 to 2005-06. While Tamil Nadu, Maharashtra, West Bengal and Andhra Pradesh grew at 5-6 percent, the remaining states at 6-7 percent. The ratio of maximum (Punjab) to minimum (Bihar) per capita GSDP rose from 3.17 in 1993-94 to 5.37 in 2000-01 and thereafter fluctuated between 3.64 to 3.90. The ratio of maximum (Kerala) to minimum (Bihar) per capita expenditure on education fell from 2.52 to 2.22. In the case of health, the ratio of maximum (Punjab) and minimum (Bihar) widened from 2.11 to 3.59 and in the case of water and sanitation, the ratio of maximum (Tamil Nadu) and minimum (Bihar) increased dramatically from 5.75 to 15.8 during the study period.

**Keywords:** Inter-State imbalances, health, education, family welfare

JEL Codes: H51, H52, E61, E66

## INTRODUCTION

There are considerable inter-state disparities in India. The growth of per capita GSDP indicates the disparity in fiscal capacity in various states while the disparities in per capita government expenditures on priority sectors like education, health, and water supply and sanitation indicate how lower fiscal capacities translate into differences in governments' fiscal intervention in provision of services.

In this paper we analyze the inter-state imbalances in three major sectors of the economy, namely, education, health and family welfare, and water supply and sanitation. The period of analysis is from 1993-94 to 2005-06 covering 15 major states viz., Andhra Pradesh, Assam, Bihar, Gujarat, Haryana, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Punjab, Rajasthan, Tamil Nadu and West Bengal. From 2000-01, the divided states of Uttar Pradesh, Madhya Pradesh, and Bihar are clubbed together to maintain comparability. Due to special features of the northeastern states and data gaps these states have been excluded except for Assam. Also, the smaller states such as Goa and Delhi, the later as additional special features being capital of India, are not analyzed here.

Aspect of inter-state inequality has been examined by many authors (Barro, 1991; Nagarajan, Varoudakis and Veganzones, 1998; Govinda Rao, Shand and Kalirajan, 1999, Shand and Bhide, 2000, Ahluwalia, 2000, 2002; Kurian, 2002; Hanumantha Rao and Mahendra Dev, 2003; Dholakia 2003; Shetty 2003; Bhattacharya and Sakthiel, 2004). They had observed that the regional disparity in India has widened especially during the nineties. Ahluwalia (2000) examined the performance of states in the post reform period. He particularly examined the differences in performance among states. He argues that 'while interstate inequality as measured by the gini coefficient has clearly increased,

the common perception that the rich states got richer and the poor states got poorer is not entirely accurate' (p. 1639).

Barro (1991) postulates that when the growth rate of an economy accelerates, initially some regions with better resources would grow faster than others. But over time the law of diminishing return sets in and the growth rates would tend to converge and this would in turn bridge the gaps in the levels of income across regions. Bhattacharya and Sakthivel (2004) analysis indicates that while the growth rate of gross domestic product has improved only marginally in the post-reform decade, regional disparity in state domestic product (SDP) has widened much more drastically. Industrial states are growing much faster than backward states, and there is no evidence of convergence of growth rates among states. Disturbingly, there is also an inverse relationship between population growth and SDP growth.

The paper is organized into six sections. The second section deals with the trends of per capita GSDP in all the 15 states. The third section discusses the methodology and examines the inter-state imbalances in the education sector. The fourth section analyses the inter-state imbalances in health and family welfare. The fifth section provides an analysis of the inter-state imbalances in water supply and sanitation. In all three cases, we analyse, whether a state's deficiency relative to the average is due to its lower fiscal capacity or due to that of lower priority that it attaches to the concerned service relative to the average. The final sections summaries the observations.

## **Trends in Income of States**

To capture changes in the inter-state profile of economic activities we look at both the GSDP growth rates and per capita GSDP. It is important to note that there are some conceptual problems of measuring GSDP at the state level. Central Statistical Organization only compiles the GSDP series supplied by the state, which are based on the primary data of

production and prices collected by the concerned state statistical departments.<sup>1</sup> Tables 1 and 2 show the trend growth rates of GSDP at 1999-00 prices.<sup>2</sup> It is observed that among the fifteen states, low income states like Assam, Orissa, Uttar Pradesh and Bihar, and surprisingly Punjab registered a growth rates below 5 per cent per annum during the period 1993-94 to 1999-00. Four states viz., Kerala, Andhra Pradesh and Haryana showed a growth rate of 5-6 percent while the remaining six states (Maharashtra, Tamil Nadu, West Bengal, Gujarat, Karnataka and Rajasthan) showed a growth rate of 7-8 percent.

Table 1: Trend Growth Rates of GSDP at Constant Prices (1999-00)

SI.	States	1993-94 to	2000-01 to	1993-94 to
No.		1999-00	2005-06	2005-06
1	Andhra Pradesh	5.29	6.54	5.90
2	Assam	1.95	6.99	4.29
3	Bihar*	4.70	5.95	4.74
4	Gujarat	7.66	10.25	6.27
5	Haryana	5.74	8.31	7.12
6	Karnataka	7.96	5.87	6.62
7	Kerala	5.15	6.84	5.72
8	Madhya Pradesh*	5.33	5.80	4.23
9	Maharashtra	6.21	7.16	5.89
10	Orissa	4.12	8.30	4.84
11	Punjab	4.87	3.80	4.11
12	Rajasthan	8.25	5.39	5.37
13	Tamil Nadu	6.25	5.26	5.11
14	Uttar Pradesh*	4.46	4.56	4.04
15	West Bengal	7.19	6.06	6.32
	15 States	5.86	6.36	5.40

Source (Basic Data): Central Statistical Organization.

Note: \* Data relates to combined states.

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<sup>&</sup>lt;sup>1</sup> There is lot of measurement problems particularly that of value added component.

<sup>&</sup>lt;sup>2</sup> Since the new GSDP series with 1999-00 base is available, we used the splicing method to convert the 1993-94 series to 1999-00 base.

In the second period from 2000-01 to 2005-06, Punjab registered the lowest growth rate, while Uttar Pradesh achieved a growth rate of 4.6 percent. Five States (Tamil Nadu, Rajasthan, Madhya Pradesh, Karnataka and Bihar) achieved a growth rate of 5-6 percent, while the remaining four states (Maharashtra, Orissa, Haryana and Gujarat) accounted for over 7 per cent growth per annum. Gujarat was the highest with little above 10 percent.

In the combined period from 1993-94 to 2005-06, six states (Uttar Pradesh, Punjab, Madhya Pradesh, Assam, Bihar and Orissa) have registered a growth rate of less than 5 percent, another five states (Tamil Nadu, Rajasthan, Kerala, Maharashtra and Andhra Pradesh) showed a growth rate of 5-6 percent and the remaining four states (Gujarat, West Bengal, Karnataka and Haryana) the growth rate varied between 6-7 percent.

Thus, the middle income states like Karnataka, West Bengal, and to an extent Andhra Pradesh have performed better in terms of their growth rates, low income state like Rajasthan has also relatively improved, however the high income state like Punjab has slipped to growth rates below 5 percent.

Table 2 shows the ranking of the fifteen states and categorizing the states according to growth rates below 5 percent, between 5-6 percent and above 6 percent per annum. The number of states reporting higher growth rates in above 6 percent during the period 1993-00 was 6, this rose to 8 in the period 2001-06.

**Table 2: Ranking of the States According to Growth Rate Ranges** 

Growth Rates							
Below 5	Between 5 to 6	Above 6					
1993-94 to 1999-00							
1 Assam	6 Kerala	10 Maharashtra					
2 Orissa	7 Andhra Pradesh	11 Tamil Nadu					
3 Uttar Pradesh	8 Madhya Pradesh	12 West Bengal					
4 Bihar	9 Haryana	13 Gujarat					
5 Punjab		14 Karnataka					
		15 Rajasthan					
2000-01 to 2005-06							
1 Punjab	3 Tamil Nadu	8 West Bengal					
2 Uttar Pradesh	4 Rajasthan	9 Andhra Pradesh					
	5 Madhya Pradesh	10 Kerala					
	6 Karnataka	11 Assam					
	7 Bihar	12 Maharashtra					
		13 Orissa					
		14 Haryana					
		15 Gujarat					
1993-94 to 2005-06							
1 Uttar Pradesh	7 Tamil Nadu	12 Gujarat					
2 Punjab	8 Rajasthan	13 West Bengal					
3 Madhya Pradesh	9 Kerala	14 Karnataka					
4 Assam	10 Maharashtra	15 Haryana					
5 Bihar	11 Andhra Pradesh						
6 Orissa							

Source: Table 1.

Table 3 presents summary indicators of disparity in comparable per capita GSDP over the period 1993-94 to 2005-06. The ratio of maximum (Punjab) to minimum (Bihar) per capita GSDP rose from 3.17 in 1993-94 to 3.60 in 1995-96 and thereafter declined to 3.30 in 1997-98. This ratio increased to 5.37 in 2000-01 and thereafter fluctuated between 3.64 to 3.90. The ratio of average per capita GSDP to minimum per capita GSDP has ranged between 1.90 to 2.50 over the period 1993-94 to

2005-06. The coefficient of variation has increased in the first four years (1993-94 to 1996-97), declined in the next two years and rose to a maximum of 44.9 percent in 2000-01. Thereafter the coefficient has varied between 35 to 37 percent.

Table 3: Indicators of Inter-State Inequality: Based on Per Capita GSDP at Factor Cost at 1999-00

Years	Ratio of Max (excluding Goa) /Minimum	Ratio of Average/ Minimum	Coefficient of Variance	Gini Coefficient
1993-94	4.18	2.25	29.29	0.1760
1994-95	3.90	2.18	29.44	0.1762
1995-96	4.74	2.68	30.21	0.1899
1996-97	4.14	2.34	30.74	0.1873
1997-98	4.46	2.56	29.83	0.1910
1998-99	4.41	2.54	30.05	0.1945
1999-00	4.53	2.61	30.15	0.1996
2000-01	4.04	2.33	31.49	0.2029
2001-02	4.40	2.59	31.28	0.2055
2002-03	4.03	2.40	32.86	0.2126
2003-04	4.87	2.75	32.54	0.2152
2004-05	4.48	2.63	32.01	0.2192
2005-06	4.88	2.83	32.92	0.2279

Source (Basic Data): Central Statistical Organization.

Note: Refers to all states.

Table 4 shows the inter-state pattern of per capita GSDP at 1999-00 prices for the fifteen major states for the period 1993-94 to 2005-06. For convenience three year averages have been taken. Thus, 1994-95 refers to the three year average of 1993-94 to 1995-96, 1997-98 refers to three average of 1996-97 to 1999-00 and so on. However, GSDP figures for 2006-07 and 2007-08 for all the states are not available, we have taken figures only for 2005-06. It is also observed that Bihar has the lowest per capita income over the entire period from 1993-94 to

2005-06, while Punjab accounts for the maximum of Rs.1736 in 1994-95, which rose to Rs. 34892 in 2000-01. However, thereafter Haryana accounted for the maximum per capita income reaching a level of Rs. 45975 in 2005-06. The average per capita income of fifteen states has gone up from Rs. 10773 in 1994-95 to about Rs. 28916. These figures are at current prices.

Table 4: Per Capita GSDP of 15 Major States (Three Year Averages\*) Current Prices (1999-00 Base Year Series)

(Rs. crore)

SI.						_
No	States	1994-95	1997-98	2000-01	2003-04	2005-06
1	Andhra Pradesh	9,998.53	13,999.90	18,922.21	24,129.39	29,368.74
2	Assam	8,584.37	10,846.91	13,861.26	17,259.78	20,186.23
3	Bihar	5,223.23	7,067.64	8,172.13	9,914.68	11,957.96
4	Gujarat	13,964.68	20,337.78	22,870.49	31,176.99	39,649.17
5	Haryana	15,139.87	21,228.45	27,814.33	37,160.00	45,975.00
6	Karnataka	10,202.98	15,139.06	19,482.77	24,046.58	30,493.74
7	Kerala	11,757.59	17,758.12	22,932.11	29,461.67	35,601.55
8	Madhya Pradesh	8,512.92	11,403.57	13,674.19	16,211.88	18,986.92
9	Maharashtra	15,897.42	21,797.78	26,661.25	33,583.92	41,514.32
10	Orissa	7,437.67	9,889.77	12,135.62	16,074.91	20,250.39
11	Punjab	17,365.19	23,661.06	34,891.73	35,155.87	41,420.25
12	Rajasthan	8,869.12	13,178.85	15,311.35	17,643.92	20,095.06
13	Tamil Nadu	12,351.92	18,204.84	23,053.72	27,903.30	34,424.48
14	Uttar Pradesh	7,084.07	9,817.09	11,373.28	13,459.01	15,994.44
15	West Bengal	9,207.84	13,678.70	18,194.55	22,724.12	27,822.00

Source (Basic Data): Central Statistical Organization.

*Note:* 1994-95 refers to average of 1993-94 to 1995-96; 1997-98 refers to average of 1996-97 to 1998-99; 2000-01 refers to average of 1999-00 to 2001-02; 2003-04 refers to average of 2002-03 to 2004-05; and refers to 2005-06 figures.

Table 5 shows the per capita income of states as percentage to the average of the fifteen states. This enables us to capture the states that are improving their performance above the states average. It is seen that Bihar, Madhya Pradesh and Uttar Pradesh have shown a continuous deterioration over the years. While for Rajasthan, Orissa and Assam, there has been a decline with some fluctuation around the trend. In the case of Andhra Pradesh and Karnataka, they have moved above the average and West Bengal is slowly inching towards the average.

**Table 5: Per Capita GSDP as Percentage of 15 States Average** 

(percent) SI. No. States 1994-95 1997-98 2000-01 2003-04 2005-06 1 Andhra Pradesh 92.81 92.10 98.09 101.70 101.57 2 Assam 79.68 71.36 71.86 72.74 69.81 48.48 46.50 42.36 41.79 41.35 Bihar Guiarat 129.62 133.80 118.56 131.40 137.12 5 Haryana 140.53 139.66 144.19 156.61 158.99 Karnataka 6 94.71 99.59 101.00 101.35 105.46 7 Kerala 109.14 116.82 118.88 124.17 123.12 75.02 8 Madhya Pradesh 79.02 70.89 68.33 65.66 9 Maharashtra 147.57 143.40 138.21 141.54 143.57 62.91 10 Orissa 69.04 65.06 67.75 70.03 11 Punjab 161.19 155.66 180.88 148.17 143.24 12 Rajasthan 82.33 86.70 79.37 74.36 69.49 13 Tamil Nadu 114.65 119.76 119.51 117.60 119.05 14 Uttar Pradesh 65.76 64.58 58.96 56.72 55.31 15 West Bengal 85.47 89.99 94.32 95.77 96.22 State Avg. Per Capita **GSDP** 10773.16 15200.637 19290.066 23727.068 28916.017

Source (Basic Data): Table 4.

## **METHODOLOGY**

The analysis of per capita revenue expenditure for any service can be formulated as the priority that a i<sup>th</sup> state imparts for a service and the size of budget that i<sup>th</sup> state allocates to that service.

Per capita revenue expenditure for a service can be written as

$$(PCE / AE) = (RE / N) \qquad ...(1)$$

where,

PCE: per capita expenditure on a particular service

AE: average expenditure on a particular service

RE: revenue expenditure on a particular service

TRE: total revenue expenditure of a state

N: Population of a state

Per capita revenue expenditure for a state can be formulated as

$$(RE / N)_i = (RE / TRE)_i * (TRE / N)_i$$
 ...(2)  
or  
 $re = p_i * tre_i$ 

The per capita expenditure is derived by multiplying the priority of a state to a particular service with the size of the budget. The average ( a ) for the fifteen states is arrived as

$$(RE / N)_a = (RE / TRE)_a * (TRE / N)_a$$
 ...(3)  
Thus,  $[(RE/N)_i / (RE / N)_a] = [p_i / p_a] * [tre_i / tre_a]$ 

## Inter-State Imbalance in Education

In this section, the profile on inter-state imbalances in education is examined. By education we refer to education, sports, art and culture, which encompasses, elementary education, secondary education, university and higher education, adult education, language development, technical education, sports and youth services and art and culture. This analysis looks at the deficiency in fiscal capacity relative to the average and deficiency in the priority accorded to the sector as possible causes of relatively low per capita expenditures on education. The priorities of the states in education and the size of expenditure among the various states are analyzed.

Table 6 shows the per capita revenue expenditure of education for the period 1993-94 to 2005-06. In the year 1994-95 (the average of three years 1993-94 to 1995-96), the maximum expenditure on education was incurred by Kerala (Rs. 435) and the minimum expenditure was incurred by Bihar (Rs. 180). In the year 2005-06, the maximum expenditure on education was incurred by Kerala (Rs. 1034) and the minimum expenditure was incurred by Madhya Pradesh (Rs. 466). Maharashtra also incurred an expenditure of Rs. 1033 during this year.

Table 6: Per Capita Revenue Expenditure on Education (3 year averages)

		` '		,		(Rupees)
SI.						
No.	States	1994-95	1997-98	2000-01	2003-04	2005-06*
1	Andhra Pradesh	227.96	318.57	475.32	563.08	664.13
2	Assam	364.97	467.27	690.39	824.50	882.48
3	Bihar	180.16	240.52	383.95	424.81	529.27
4	Gujarat	360.15	532.37	686.03	711.09	761.69
5	Haryana	304.25	484.67	645.53	696.66	851.25
6	Karnataka	307.20	442.33	633.30	712.37	863.94
7	Kerala	434.68	575.15	809.92	947.57	1034.21
8	Madhya Pradesh	197.74	282.03	365.44	390.79	466.07
9	Maharashtra	366.41	528.08	902.45	942.17	1033.20
10	Orissa	241.95	355.17	492.33	506.30	596.04
11	Punjab	360.19	587.60	755.23	820.39	864.04
12	Rajasthan	302.94	443.23	581.99	609.74	752.53
13	Tamil Nadu	332.37	509.96	699.04	673.92	771.96
14	Uttar Pradesh	189.59	283.85	361.71	411.24	525.83
15	West Bengal	245.25	346.45	589.05	558.44	654.71

Source (Basic Data): RBI, Study of State Finances, various years and CSO.

Note: 1994-95 refers to average of 1993-94 to 1995-96; 1997-98 refers to average of 1996-97 to 1998-99; 2000-01 refers to average of 1999-00 to 2001-02; 2003-04 refers to average of 2002-03 to 2004-05; and refers to 2005-06 figures.

Table 7 shows the ranking of the states as per their per capita revenue expenditure on education for three year averages centered in the years 1994-95, 1997-98, 2000-01 and 2003-04, and 2005-06. In 1994-95 and 1997-98, Bihar had the lowest expenditure on education and thereafter improved to by two places in 2003-06. In the case of Uttar Pradesh, it has generally occupied the second last place except for the year 1997-98 when it was second lowest and further deteriorated to last position in 2000-01. Among the low income states (Bihar, Orissa, Madhya Pradesh, Rajasthan and Uttar Pradesh) Rajasthan has higher per capita expenditure on education. It is having higher expenditure than West Bengal. The per capita expenditure in the case of Punjab fluctuated between 1st to 4th ranks. Kerala has generally occupied the first rank in

1994-95, 2003-04 and 2005-06, in 1997-98 and 2000-01 it stood in second place. Maharashtra spends a substantial amount on education followed by Assam.

Table 7: Ranking of States as Per Capita Revenue Expenditure on Education

1994-95	1997-98	2000-01	2003-04	2005-06
15 Bihar	15 Bihar	15 Uttar Pradesh	15 Madhya Pradesh	15 Madhya Pradesh
14 Uttar Pradesh	14 Madhya Pradesh	14 Madhya Pradesh	14 Uttar Pradesh	14 Uttar Pradesh
13 Madhya Pradesh	13 Uttar Pradesh	13 Bihar	13 Bihar	13 Bihar
12 Andhra Pradesh	12 Andhra Pradesh	12 Andhra Pradesh	12 Orissa	12 Orissa
11 Orissa	11 West Bengal	11 Orissa	11 West Bengal	11 West Bengal
10 West Bengal	10 Orissa	10 Rajasthan	10 Andhra Pradesh	10 Andhra Pradesh
9 Rajasthan	9 Karnataka	9 West Bengal	9 Rajasthan	9 Rajasthan
8 Haryana	8 Rajasthan	8 Karnataka	8 Tamil Nadu	8 Gujarat
7 Karnataka	7 Assam	7 Haryana	7 Haryana	7 Tamil Nadu
6 Tamil Nadu	6 Haryana	6 Gujarat	6 Gujarat	6 Haryana
5 Gujarat	5 Tamil Nadu	5 Assam	5 Karnataka	5 Karnataka
4 Punjab	4 Maharashtra	4 Tamil Nadu	4 Punjab	4 Punjab
3 Assam	3 Gujarat	3 Punjab	3 Assam	3 Assam
2 Maharashtra	2 Kerala	2 Kerala	2 Maharashtra	2 Maharashtra
1 Kerala	1 Punjab	1 Maharashtra	1 Kerala	1 Kerala

Table 8 shows the summary indicators of disparity in comparable per capita expenditure on education over the period 1993-94 to 2005-06. The ratio of maximum (Kerala) to minimum (Bihar) fell from 2.52 in 1993-94 to 2.26 in 1995-96 and rose to 2.95 in 1998-99 and thereafter fell to 2.22 in 2005-06. The ratio of average per capita revenue expenditure on education to minimum also followed a similar pattern. The coefficient of variation has fallen during the first four years (1993-94 to 1996-97), rose in the next two years and thereafter the coefficient has varied between 23 to 28 percent. By all the three indicators, some reduction in the extent of disparity in the per capita expenditures is visible.

**Table 8: Disparities in Per Capita Education among the States** 

Year	Ratio of Maximum to Minimum Per Capita Revenue Expenditure on Education	Ratio of Average to Minimum Per Capita Revenue Expenditure on Education	Coefficient of Variation (percent)
1993-94	2.52	1.71	26.84
1994-95	2.51	1.63	25.92
1995-96	2.26	1.58	24.62
1996-97	2.35	1.65	24.18
1997-98	2.29	1.64	26.32
1998-99	2.95	2.01	27.64
1999-00	2.46	1.75	24.42
2000-01	2.66	1.68	28.68
2001-02	2.80	1.77	27.45
2002-03	2.53	1.72	27.27
2003-04	2.44	1.68	27.97
2004-05	2.45	1.69	27.52
2005-06	2.22	1.61	23.29

Source (Basic Data): RBI, Study of State Finances, various years and Central Statistical Organization.

Table 9 presents the share of per capita expenditure of each state on education to the average per capita expenditure of the fifteen states. This enables us to see whether low incomes states are trying to attain the average performance of the states. States that show less than average priority for education are Andhra Pradesh, Bihar, Uttar Pradesh, and West Bengal, where although the share of per capita expenditure was lower than the 15-state average but it increased over time. In the case of Madhya Pradesh and Orissa, it was lowest in the early nineties and also fell over time. From Table 9 it is observed that Bihar and Madhya Pradesh spend only 60 to 70 percent of the average while Andhra Pradesh has shown an upward trend over the year. In the case of West Bengal it was above the average in 1999-00 but thereafter declined to 87 percent in 2005-06.

Table 9: Share of Per capita Expenditure on Education to Average (15 States) Expenditure on Education

					(A	percent)
SI.						
No.	States	1994-95	1997-98	2000-01	2003-04	2005-06
1	Andhra Pradesh	77. <del>44</del>	74.70	78.59	86.25	88.54
2	Assam	123.98	109.56	114.16	126.29	117.65
3	Bihar	61.20	56.40	63.49	65.07	70.56
4	Gujarat	122.34	124.83	113.44	108.92	101.55
5	Haryana	103.35	113.64	106.74	106.71	113.49
6	Karnataka	104.35	103.72	104.72	109.11	115.18
7	Kerala	147.65	134.86	133.92	145.14	137.88
8	Madhya Pradesh	67.17	66.13	60.43	59.86	62.14
9	Maharashtra	124.47	123.82	149.22	144.31	137.74
10	Orissa	82.19	83.28	81.41	77.55	79.46
11	Punjab	122.35	137.78	124.88	125.66	115.19
12	Rajasthan	102.91	103.93	96.23	93.39	100.33
13	Tamil Nadu	112.90	119.57	115.59	103.22	102.92
14	Uttar Pradesh	64.40	66.56	59.81	62.99	70.10
15	West Bengal	83.31	81.23	97.40	85.54	87.28
States	Average Per Capita					
Ex	penditure (Rs.)	294.39	426.48	604.78	652.87	750.09

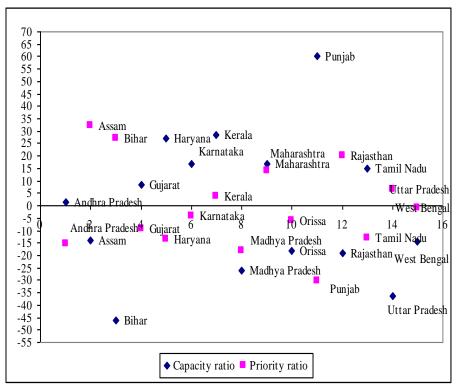
Source (Basic Data): RBI, Study of State Finances, various years and Central Statistical Organization.

Another way to look at the performance of the states is to plot the scatter of priority and capacity ratios for each of the years. Here, we plot the scatter for the year 2005-06. All those states which are spending more than the average share of revenue expenditure on education to total revenue expenditure show priority in spending on education. Similarly, states that are providing more than he average states in total revenue expenditure are creating higher capacity in education services.

Chart 1 shows the performance of states in terms of capacity ratio and priority ratio for the year 2005-06. Orissa slipped to 15-states

average in terms of their priority in education. In terms of their capacity ratio are below the 15-state average.

Chart 1: Performance of States in terms of Capacity and Priority Ratio: 2005-06



From the above analysis on education for the year 2005-06, it is clear that some of the low income states (Bihar, Rajasthan, and Uttar Pradesh are improving in terms of their priority on education but in terms of capacity all of them are below the 15-state average. High income state Punjab seems to have less priority in education and is below the 15-state average, though in terms of allocation of resources it is high.

## **Inter-State Imbalance in Health and Family Welfare**

In this section, the profile on inter-state imbalances in health and family welfare is examined. By health we refer to health and public health, which includes urban health services (allopathy), urban health services (other systems of medicine), rural health services (allopathy), rural health services (other systems of medicine), medical education, training and research, and public health. Family welfare services include rural family and urban welfare services, maternity and child health, selected area programmes, research, evaluation and training etc. These services will be referred to as Health and Family Welfare services in this paper. This analysis looks at the deficiency in fiscal capacity relative to the average and deficiency in the priority accorded to the sector as possible causes of relatively low per capita expenditures on health and family welfare. The priorities of the states in health and family welfare and the size of expenditure among the various states are analyzed.

Table 10 shows the per capita revenue expenditure of health and family welfare for the period 1993-94 to 2005-06. In the year 1994-95 (the average of three years 1993-94 to 1995-96), the maximum expenditure on health and family welfare was incurred by Kerala (Rs. 113) and the minimum expenditure was incurred by Bihar (Rs. 57). In the year 2005-06, the maximum expenditure on health and family welfare was incurred by Kerala (Rs. 282) and the minimum expenditure was incurred by Orissa (Rs. 116). The other high per capita states are Punjab (Rs. 263), Karnataka (Rs. 203) and Andhra Pradesh (Rs. 201).

Table 10: Per Capita Revenue Expenditure on Health and Family Welfare (Three year averages)

(Rupees)

SI.						
No.	States	1994-95	1997-98	2000-01	2003-04	2005-06
1	Andhra Pradesh	78.79	119.58	162.12	182.61	201.12
2	Assam	80.57	93.51	125.81	130.11	140.04
3	Bihar	57.32	54.11	94.82	91.07	146.19
4	Gujarat	92.82	141.39	167.87	168.02	190.85
5	Haryana	74.00	120.00	141.61	160.64	194.16
6	Karnataka	93.35	122.80	174.96	179.78	203.33
7	Kerala	113.18	158.07	219.88	252.80	281.56
8	Madhya Pradesh	61.10	85.50	109.38	123.57	137.41
9	Maharashtra	91.43	119.61	163.86	175.36	203.92
10	Orissa	65.09	91.93	116.56	135.75	116.20
11	Punjab	108.34	175.67	247.21	237.92	262.66
12	Rajasthan	94.12	130.69	161.40	165.78	183.86
13	Tamil Nadu	105.67	152.77	186.90	192.78	214.51
14	Uttar Pradesh	62.38	78.58	80.98	106.60	150.45
15	West Bengal	75.38	113.00	163.98	162.25	177.34
Cour	co (Pacie Data), DDI Ci	rudy of Ctato I	inances va	ious voors o	ad Control Cta	tictical

Source (Basic Data): RBI, Study of State Finances, various years and Central Statistical Organization.

*Note:* \*1994-95 refers to average of 1993-94 to 1995-96; 1997-98 refers to average of 1996-97 to 1998-99; 2000-01 refers to average of 1999-00 to 2001-02; 2003-04 refers to average of 2002-03 to 2004-05; and refers to 2005-06 figures.

Table 11 shows the ranking of the states as per their per capita revenue expenditure on health and family welfare for three year averages centered in the years 1994-95, 1997-98, 2000-01 and 2003-04, and 2005-06. In 1994-95, 1997-98, 2003-04 Bihar had the lowest expenditure on health and family welfare but improved in 2005-06 to 12 rank. In the case of Uttar Pradesh, it has generally occupied the second last place except for the year 2000-01 when it was lowest and 2005-06 further it improved its position to 11. Among the low income states (Bihar, Orissa, Madhya Pradesh, Rajasthan and Uttar Pradesh) Rajasthan has done exceptionally well but its position has come down from 4<sup>th</sup> in 1994-95 to 9<sup>th</sup> in 2005-06. The per capita expenditure in the case of

Tamil Nadu has been stable and is in 3<sup>rd</sup> position, and Kerala and Punjab are competing for the first two ranks.

Table 11: Ranking of States as Per Capita Revenue Expenditure on Health and Family Welfare

	1994-95		1997-98		2000-01		2003-04		2005-06
1	Kerala	1	Punjab	1	Punjab	1	Kerala	1	Kerala
2	Punjab	2	Kerala	2	Kerala	2	Punjab	2	Punjab
3	Tamil Nadu	3	Tamil Nadu	3	Tamil Nadu	3	Tamil Nadu	3	Tamil Nadu
4	Rajasthan	4	Gujarat	4	Karnataka	4	Andhra Pradesh	4	Maharashtra
5	Karnataka	5	Rajasthan	5	Gujarat	5	Karnataka	5	Karnataka
6	Gujarat	6	Karnataka	6	West Bengal	6	Maharashtra	6	Andhra Pradesh
7	Maharashtra	7	Haryana	7	Maharashtra	7	Gujarat	7	Haryana
8	Assam	8	Maharashtra	8	Andhra Pradesh	8	Rajasthan	8	Gujarat
9 /	Andhra Pradesh	9 <i>F</i>	Andhra Pradesh	9	Rajasthan	9	West Bengal	9	Rajasthan
10	West Bengal	10	West Bengal	10	Haryana	10	Haryana	10	West Bengal
11	Haryana	11	Assam	11	Assam	11	Orissa	11	Uttar Pradesh
12	Orissa	12	Orissa	12	Orissa	12	Assam	12	Bihar
13	Uttar Pradesh	13	Madhya Pradesh	13	Madhya Pradesh	13	Madhya Pradesh	13	Assam
14	Madhya Pradesh	14	Uttar Pradesh	14	Bihar	14	Uttar Pradesh	14	Madhya Pradesh
15	Bihar	15	Bihar	15	Uttar Pradesh	15	Bihar	15	Orissa

Table 12 shows the summary indicators of disparity in comparable per capita expenditure on health and family welfare over the period 1993-94 to 2005-06. The ratio of maximum (Punjab) to minimum (Bihar) widened was 2.11 and it rose to 3.89 in 1998-99 and since has shown a downward trend except few yeas in between. The ratio of average per capita revenue expenditure on health and family welfare to minimum also followed a similar pattern. The coefficient of variation was around 22 percent in 1993-94 to 1995-96 but there after went up to 32 in 1998-99 and thereafter declined to 24 percent in 2005-06. By all the three indicators, there seems to be narrowing of disparity in health and family welfare in terms of per capita expenditures.

Table 12: Disparities in Per Capita on Health and Family Welfare among the States

Year	Ratio of Maximum to Minimum Per Capita Rev. Exp. on Health and family Welfare	Ratio of Average to Minimum Per Capita Rev. Exp. Health and family Welfare	Coefficient of Variation (percent)
1993-94	2.11	1.51	21.80
1994-95	2.12	1.55	21.97
1995-96	2.06	1.46	21.95
1996-97	2.75	1.98	25.07
1997-98	3.07	2.09	27.27
1998-99	3.89	2.40	32.06
1999-00	3.04	1.99	29.17
2000-01	3.14	1.88	29.65
2001-02	2.98	1.86	29.94
2002-03	2.55	1.65	27.52
2003-04	2.78	1.78	28.07
2004-05	3.18	2.03	25.83
2005-06	2.42	1.61	24.36

Source (Basic Data): RBI, Study of State Finances, various years and Central Statistical Organization.

Table 13: Share of Per capita Expenditure on Health and Family Welfare to Average (15 States) Expenditure on Health and

	Family Welfare						
S.N.	States	1994-95	1997-98	2000-01	2003-04	2005-06	
1	Andhra Pradesh	94.29	102.08	104.94	111.12	107.61	
2	Assam	96.41	79.82	81.44	79.17	74.92	
3	Bihar	68.59	46.19	61.38	55.42	78.22	
4	Gujarat	111.07	120.70	108.66	102.24	102.11	
5	Haryana	88.55	102.44	91.67	97.75	103.88	
6	Karnataka	111.70	104.82	113.25	109.40	108.79	
7	Kerala	135.43	134.93	142.33	153.83	150.64	
8	Madhya Pradesh	73.11	72.99	70.80	75.19	73.52	
9	Maharashtra	109.40	102.10	106.07	106.71	109.10	
10	Orissa	77.89	78.47	75.45	82.60	62.17	
11	Punjab	129.64	149.96	160.02	144.78	140.53	
12	Rajasthan	112.63	111.56	104.47	100.88	98.37	
13	Tamil Nadu	126.44	130.41	120.98	117.31	114.77	
14	Uttar Pradesh	74.64	67.08	52.42	64.87	80.49	
15	West Bengal	90.20	96.46	106.14	98.73	94.88	
	Average	83.57	117.15	154.49	164.33	186.91	

Source (Basic Data): RBI, Study of State Finances, various years and Central Statistical Organization.

Table 13 presents the share of per capita expenditure of each state on health and family welfare to the average per capita expenditure of the fifteen states. This enables us to see whether low incomes states are trying to attain the average performance of the states.

States that show less than average priority for health and family welfare are Assam, Bihar, Madhya Pradesh, Orissa, Uttar Pradesh, and West Bengal (except for 2000-01). Their share of per capita expenditure to the 15-state average has been fluctuation over the years. From Table 13 it is observed that middle income states like Andhra Pradesh, Karnataka, and Kerala are well above the 15-state average. High income states are performing well.

Chart 2: Performance of States in terms of Capacity and Priority Ratio: 2005-06

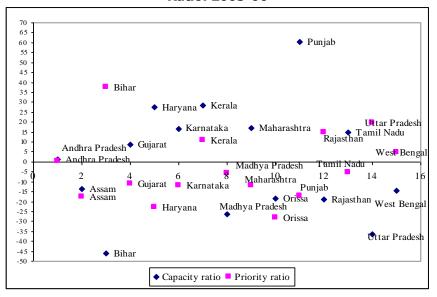


Chart 2 shows the performance of states in terms of capacity ratio and priority ratio for the year 2005-06. Rajasthan, Bihar, and Uttar Pradesh were above the 15-states average in terms of their priority in health and family welfare. In terms of their capacity ratio are still below the 15-state average while high income states are well above the 15-state average and in middle income states Kerala, Tamil Nadu, Gujarat, Karnataka, and Andhra Pradesh are above the 15-state average.

From the above analysis on health and family welfare it is clear that some of the low income states (Bihar, Rajasthan, and Uttar Pradesh are improving in terms of their priority on health and family welfare but in terms of capacity all of them are below the 15-state average. High income state Punjab and Maharashtra seems to have less priority in health and family welfare and is below the 15-states average, though in terms of allocation of resources (capacity ratio) they are high. Among the middle income state Kerala, Andhra Pradesh and Tamil Nadu are above the 15-state average in terms of priority and capacity.

## **Inter-State Imbalance in Water Supply and Sanitation**

In this section, the profile on inter-state imbalances in water supply and sanitation is examined. By water supply we refer to both rural and urban water supply programmes, and sanitation includes sanitation and sewerage services. As discussed in the earlier services the same methodology is used to look at the deficiency in fiscal capacity relative to the average in deficiency and the priority accorded to the sector as possible causes of relatively low per capita expenditures on water supply and sanitation. The priorities of the states in water supply and sanitation and the size of expenditure among the various states are analyzed.

Table 14 shows the state-wise coverage of water supply and sewerage facilities for the 15 states. It is seen that there is cent percent coverage in Madhya Pradesh and Rajasthan, 99 percent in Uttar Pradesh and Maharashtra, followed by 98 percent in Gujarat. While in Tamil Nadu

it is 89 percent. All these states are above the 15-states average of 88 percent. In the case of sewerage and sanitation facilities Madhya Pradesh, Rajasthan, Kerala, Tamil Nadu, Gujarat, Maharashtra, Haryana and Punjab are above the 15-states average of 61 percent.

**Table 14: State-Wise Water Supply and Sewerage Facilities** 

	Estimated Population (As of 31.3.2000)	Population Provided with Water Supply				Population Provided with Sewerage & Sanitation Facilities			
States/UTs		House Service Connection	Public Stand Post	Total	% to Population	Sewer	Low Cost Sanitation Septic Tank	Total	% to Population
Andhra									
Pradesh	19238	9407	4508	13915	72	3100	7912	11012	57
Assam @	3100	600	200	800	26	15	258	273	9
Bihar**	11892	4187	5327	9514	80	550	6364	6914	58
Gujarat **	16810	13227	3307	16534	98	10871	348	11219	67
Haryana	3705	2108	402	2510	68	1972	348	2320	63
Karnataka	16750	9245	3595	12840	77	5820	6110	11930	71
Kerala	7680	3260	2764	6024	78	290	5470	5760	75
Madhya									
Pradesh	25000	16200	8800	25000	100	2500	17500	20000	80
Maharashtra**	34309	23744	10176	33920	99	17020	4983	22003	64
Orissa	4877	859	2221	3080	63	422	0	422	9
Punjab	8496	5212	317	5529	65	3745	1407	5152	61
Rajasthan	12897	10318	2579	12897	100	995	9194	10189	79
Tamil Nadu	25525	13836	8851	22687	89	7481	10341	17822	70
Uttar Pradesh									
\$	33000	16100	16500	32600	99	12200	0	12200	37
West									
Bengal**	18495	6261	9505	15766	85	3332	5950	9282	50
15 States	241774	134564	79052	213616	88	70313	76185	146498	61

Source: Rajya Sabha Unstarred Question No. 4375, dated 02.05.2003.

Note: \*: Indicates Accessibility only, Adequacy and equitable distribution of water supply is not as per the prescribed norms of Govt. of India. \*\*: The figures indicate as of 31.3.1997 since the respective states have not furnished the information as of 31.3.2000. @: The figures indicate the sanitation coverage as of 31.3.1997 since the respective states have not furnished the information as of 31.3.2000. \$: In case of Uttar Pradesh the data on L.C.S is yet to be received.

Table 15 shows the per capita revenue expenditure of water supply and sanitation for the period 1993-94 to 2005-06. In the year 1994-95 (the average of three years 1993-94 to 1995-96), the maximum expenditure on water supply and sanitation was incurred by Haryana (Rs. 70) and the minimum expenditure was incurred by Bihar (Rs. 11). In the year 2005-06, the maximum expenditure on water supply and sanitation was incurred by Maharashtra (Rs. 158) and the minimum expenditure

was incurred by Tamil Nadu (Rs. 10). The other states that have incurred comparatively high expenditures are Haryana (Rs. 154) and Rajasthan (Rs. 147) during this year.

Table 15: Per Capita Revenue Expenditure on Water Supply and Sanitation (Three year averages)

					(	(Rupees)
SI.						
No.	States	1994-95	1997-98	2000-01	2003-04	2005-06*
1	Andhra Pradesh	34.16	62.20	34.75	25.64	113.10
2	Assam	33.69	42.74	63.23	77.88	115.36
3	Bihar	10.54	9.13	21.61	23.47	36.18
4	Gujarat	18.73	32.05	34.35	38.46	41.32
5	Haryana	69.64	76.75	111.28	144.99	154.25
6	Karnataka	36.01	56.58	61.62	57.10	26.44
7	Kerala	30.25	42.86	50.24	70.07	67.20
8	Madhya Pradesh	42.98	55.33	65.67	50.36	58.38
9	Maharashtra	32.42	68.39	71.79	94.23	157.54
10	Orissa	26.54	45.04	51.54	56.55	80.77
11	Punjab	33.50	46.71	62.18	98.73	72.15
12	Rajasthan	59.09	89.50	117.32	134.73	146.74
13	Tamil Nadu	48.97	44.46	32.47	34.06	9.95
14	Uttar Pradesh	14.89	25.19	24.28	29.56	47.17
15	West Bengal	16.83	27.99	47.37	32.88	24.47

Source (Basic Data): RBI, Study of State Finances, various years and Central Statistical Organization.

Note: \*1994-95 refers to average of 1993-94 to 1995-96; 1997-98 refers to average of 1996-97 to 1998-99; 2000-01 refers to average of 1999-00 to 2001-02; 2003-04 refers to average of 2002-03 to 2004-05; and refers to 2005-06 figures.

Table 16 shows the ranking of the states as per their per capita revenue expenditure on water supply and sanitation for three year averages centered in the years 1994-95, 1997-98, 2000-01 and 2003-04, and 2005-06. From 1994-95 to 2003-04, Bihar had the lowest expenditure on water supply and sanitation and thereafter improved by three to 12<sup>th</sup> rank by 2005-06. In the case of Uttar Pradesh, it has improved from 14<sup>th</sup> from 1994-95 to 2003-04 to 10<sup>th</sup> rank in 2005-06. Among the low income states (Bihar, Orissa, Madhya Pradesh, Rajasthan and Uttar Pradesh) Rajasthan has higher per capita expenditure on water supply and sanitation. It is having higher expenditure than West Bengal. Rajasthan has ranked among the top three states over the years in terms

of per capita expenditure on water supply and sanitation. The per capita expenditure in the case of Punjab fluctuated over the years. Tamil Nadu expenditure has gone down over the years and in 2005-06 it was at  $15^{\rm th}$  rank.

Table 16: Ranking of States as Per Capita Revenue Expenditure on Water Supply and Sanitation

	1994-95		1997-98		2000-01		2003-04		2005-06
1	Haryana	1	Rajasthan	1	Rajasthan	1	Haryana	1	Maharashtra
2	Rajasthan	2	Haryana	2	Haryana	2	Rajasthan	2	Haryana
3	Tamil Nadu	3	Maharashtra	3	Maharashtra	3	Punjab	3	Rajasthan
4	Madhya Pradesh	4	Andhra Pradesh	4	Madhya Pradesh	4	Maharashtra	4	Assam
5	Karnataka	5	Karnataka	5	Assam	5	Assam	5	Andhra Pradesh
6	Andhra Pradesh	6	Madhya Pradesh	6	Punjab	6	Kerala	6	Orissa
7	Assam	7	Punjab	7	Karnataka	7	Karnataka	7	Punjab
8	Punjab	8	Orissa	8	Orissa	8	Orissa	8	Kerala
9	Maharashtra	9	Tamil Nadu	9	Kerala	9	Madhya Pradesh	9	Madhya Pradesh
10	Kerala	10	Kerala	10	West Bengal	10	Gujarat	10	Uttar Pradesh
11	Orissa	11	Assam	11	Andhra Pradesh	11	Tamil Nadu	11	Gujarat
12	Gujarat	12	. Gujarat	12	Gujarat	12	West Bengal	12	Bihar
13	West Bengal	13	West Bengal	13	Tamil Nadu	13	Uttar Pradesh	13	Karnataka
14	Uttar Pradesh	14	Uttar Pradesh	14	Uttar Pradesh	14	Andhra Pradesh	14	West Bengal
15	Bihar	15	Bihar	15	Bihar	15	Bihar	15	Tamil Nadu

Table 17 shows the summary indicators of disparity in comparable per capita expenditure on water supply and sanitation over the period 1993-94 to 2005-06. The ratio of maximum (Tamil Nadu) to minimum (Bihar) increased from 5.75 1993-94 to 10.65 in 1994-95 and fell in the subsequent year but again rose to reach 11.87 in 1998-99 and thereafter it was in the range of 5-7 but rose to 15.8 in 2005-06. The ratio of average per capita revenue expenditure on water supply and sanitation to minimum also followed a similar pattern. The coefficient of variation has varied between 41-64 percent during the entire period (1993-94 to 2005-06). By all the three indicators, there is an increase in

the extent of disparity in terms of per capita expenditures on water supply and sanitation.

Table 17: Disparities in Per Capita on Water Supply and Sanitation

	Juin		
	Ratio of Maximum to Minimum Per Capita	Ratio of Average to Minimum Per Capita	Coefficient of Variation
	Revenue Expenditure	Revenue	(percent)
Year	on Water supply and	Expenditure on	VI /
	Sanitation	Water supply and	
		Sanitation	
1993-94	5.72	2.90	50.05
1994-95	10.65	3.65	63.91
1995-96	5.61	3.10	41.26
1996-97	7.16	3.79	44.68
1997-98	11.06	6.11	43.26
1998-99	11.87	6.39	46.41
1999-00	5.94	3.12	45.49
2000-01	6.87	3.24	53.24
2001-02	5.40	2.46	55.99
2002-03	6.06	2.56	61.71
2003-04	7.34	3.04	60.66
2004-05	6.16	3.04	61.49
2005-06	15.83	7.71	64.42

Source (Basic Data): RBI, Study of State Finances, various years and Central Statistical Organization.

Table 18 presents the share of per capita expenditure of each state on water supply and sanitation to the average per capita expenditure of the fifteen states. This enables us to see whether low incomes states are trying to attain the average performance of the states. States that show less than average priority for water supply and sanitation are Bihar, Uttar Pradesh, West Bengal, Orissa and Gujarat where the share of per capita expenditure was lower than the 15-state average. In the case of Madhya Pradesh it was above the 15-state average upto 2003-04 but there after fell below the 15-state average.

From Table 18 it is observed that Gujarat, Uttar Pradesh, Bihar and West Bengal spend only 40 to 60 percent of the average from 2003-04.

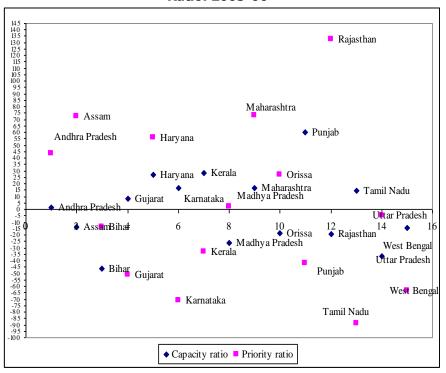
Table 18: Share of Per capita Expenditure on Water Supply and Sanitation to Average (15 States) Expenditure on Water Supply and Sanitation

5-06 7.40
7.40
0.33
7.15
3.85
1.02
4.46
7.58
5.08
5.30
5.26
4.02
1.22
2.97
1.47
1.89
9.66
7314755412

Source (Basic Data): RBI, Study of State Finances, various years and Central Statistical Organization.

Chart 3 shows the performance of states in terms of capacity ratio and priority ratio for the year 2005-06. Bihar slipped back to below 15-states average in terms of their priority in water supply and sanitation. In terms of their capacity ratio all the low income states are still below the 15-state average while the high income states are above the average.

Chart 3: Performance of States in terms of Capacity and Priority Ratio: 2005-06



In 1999-00 the low income in states viz., Bihar, Madhya Pradesh, Orissa and Rajasthan improved in terms of their priority in water supply and sanitation as compared to 1993-94 but in 2005-06 Bihar slipped to below state average and Uttar Pradesh was inching close to average. In terms of their capacity ratio are still below the 15-state average. Middle income state like Kerala, Karnataka, West Bengal, and Gujarat are below the 15-states average in 2005-06. High income state Punjab is below the average. In terms of their capacity ratio are above the 15-state average.

## **CONCLUSIONS**

From the analysis of GSDP it appears that middle income states like Karnataka, West Bengal, and to an extent Andhra Pradesh have performed better in terms of their growth rates, low income state like Rajasthan has also relatively improved, however the high income state like Punjab has slipped to growth rates below 5 percent.

The analysis of per capita income of states as percentage to the average of the fifteen states which enables us to capture the states that are improving their performance above the states average shows that Bihar, Madhya Pradesh and Uttar Pradesh have continuously deterioration over the years. While for Rajasthan, Orissa and Assam, there has been a decline with some fluctuation around the trend. In the case of Andhra Pradesh and Karnataka, they have moved above the average and West Bengal is slowly inching towards the average.

The summary indicators of disparity in comparable per capita expenditure on education, viz., the ratio of maximum to minimum, the ratio of average per capita revenue expenditure on education to minimum, and the coefficient of variation over the period 1993-94 to 2005-06 show some reduction in the extent of disparity.

The analysis on education for the year 2005-06 shows that some of the low income states (Bihar, Rajasthan, and Uttar Pradesh are improving in terms of their priority on education but in terms of capacity all of them are below the 15-state average. High income state like Punjab seems to have less priority in education and is below the 15-state average, though in terms of allocation of resources it is high.

The analysis of per capita revenue expenditure on health and family welfare shows that among the low income states (Bihar, Orissa,

Madhya Pradesh, Rajasthan and Uttar Pradesh) Rajasthan has done exceptionally well but its position has come down from 4<sup>th</sup> in 1994-95 to 9<sup>th</sup> in 2005-06. The per capita expenditure in the case of Tamil Nadu has been stable and is in 3<sup>rd</sup> position, and Kerala and Punjab are competing for the first two ranks.

The summary of the three indicators of disparity in comparable per capita expenditure on health and family welfare seems to narrow down over the period 1993-94 to 2005-06.

In health and family welfare it is clear that some of the low income states (Bihar, Rajasthan, and Uttar Pradesh are improving in terms of their priority on health and family welfare but in terms of capacity all of them are below the 15-state average. High income state Punjab and Maharashtra seems to have less priority in health and family welfare and is below the 15-states average, though in terms of allocation of resources (capacity ratio) they are high. Among the middle income states Kerala, Andhra Pradesh and Tamil Nadu are above the 15-state average in terms of priority and capacity.

In terms of per capita revenue expenditure on water supply and sanitation Bihar had the lowest expenditure on water supply and sanitation upto 2003-04 and thereafter improved by three places to 12<sup>th</sup> rank by 2005-06. In the case of Uttar Pradesh, it has improved from 14<sup>th</sup> in 2003-04 to 10<sup>th</sup> rank in 2005-06. Among the low income states (Bihar, Orissa, Madhya Pradesh, Rajasthan and Uttar Pradesh) Rajasthan has higher per capita expenditure on water supply and sanitation. It is having higher expenditure than West Bengal. Rajasthan has ranked among the top three states over the years in terms of per capita expenditure on water supply and sanitation. The per capita expenditure in the case of Punjab fluctuated over the years. Tamil Nadu expenditure has gone down over the years and in 2005-06 it was at 15<sup>th</sup> rank.

The three summary indicators of disparity in comparable per capita expenditure on water supply and sanitation over the period 1993-94 to 2005-06 show that there is an increase in the extent of disparity in terms of per capita expenditures on water supply and sanitation. The coefficient of variation has varied between 41-64 percent during the entire period (1993-94 to 2005-06).

The performance of states in terms of capacity ratio and priority ratio for the shows that the low income states viz., Bihar, Madhya Pradesh, Orissa and Rajasthan improved in terms of their priority in water supply and sanitation. In terms of their capacity ratio are still below the 15-state average.

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