Comparative study of Inter-state economic and social differential: A study on economically well-off states

Authors: Girish Sharma[1]

[1] Author wrote this article during his BSc Economic (Hons) at Symbiosis School of Economics, Pune. Author would like to thank Akhil Srivatsa for his assistance with data compiling.

1. Introduction

In this study, authors strive to track the data since India's economic liberalization and aims to understand historical trends and analyze the synoptic overview of economic well-off states in terms of social and health metrics. This aids in the discovery of growth differences across states and identify human development problems that may occur in the future. This study, using historic data from 1993-94 to 2020-21, is an addition to empirical literature in evaluating the relationships between growth, income, and human development in Indian states.

Due to differences in endowments and other socioeconomic variables, the economic growth disparity across states of a country has been considerable even among countries worldwide. Additionally, the metrics that measure a country's economic growth may not be an apt indicator to measure country's development. As it does not guarantee national health, equality, prosperity; thus, additional factors, such as human development indicators, should be considered. A nation's economic growth and human development must go hand - in - hand in order for its population to have a bright and prosperous future. Accordingly, the study tracks the economic and social indices of Indian states, keeping the above considerations in mind.

The paper aims to identify the top-five economically well-performing states to assess socioeconomic and human development parameters. Indicators such as year-on-year per cent growth in Gross Domestic Product (GDP) at constant prices and per capita Net State Domestic Product (NSDP) is sourced from the Centre for Monitoring Indian Economy (CMIE), States of India database for 2012-2021 and Ministry of Statistics and Program Implementation (MOSPI), respectively. For socioeconomic or human development factors, data for all states are sourced from National Family Health Survey (NFHS).

The study is divided into four major sections. The first section briefly describes the methodology, data sources, and variables used in the study. The performance of different states is assessed in terms of economic indicators in the second part of the study. The performance of human development factors in the third part of the study is examined to see if the states that perform well in economic indicators also perform well in human development indicators. Finally, the conclusion sums up the findings and comments on the state(s) that performed well in both economic and human development indicators.

The one important aspect to highlight is that the indicators selected in this study are limited due to the limited scope and are not exhaustive. A more comprehensive list of income and social indicators can be approached for future research. Perhaps political scenarios can also be internalized in future inter-state researches.

2. Data sources and methodology

Authors have built the state-level database for India for the period of 30 years (1993-94 to 2020-21). The number of states under each variable depended upon the availability of the data for specific year(s). Union territories (UT) of India are excluded from the study due to the paucity of data; hence, its analysis is beyond the scope of this paper. Additionally, Goa and Delhi (NCT) are also excluded due to small geographic area and plausible economic indicators.[2]

The paper aims to identify the inter-state differential on economic factors and assess economically well-performing states on socioeconomic and human development parameters. To identify economically sound states and assess inter-state growth differential in Section 2, Year-on-Year per cent growth in GDP at constant prices (Base year: 2011-12) is sourced from CMIE – States of India database for 2012-2021. The authors also compute the coefficient of variation to understand volatility and instability in inter-state

[2] Due to their relatively small size, the economic indicators were coming extremely plausible and acted as outliers relative to the entire data.

growth. Authors also use colour-coding to differentiate the growth rate of states into different ranges to make it convenient to take up the best performing states towards the end.

In section 3, per capita NSDP is sourced from MOSPI, National Sample Statistics (NSSO) reports from 1993 to 2020. The period of the study is divided into 4 phases. The criteria for choosing different time points were data availability with separate base prices and the policy changes over the period. The index of per capita NSDP for the 4 phases with India (=100) is calculated and analyzed. The data is colour-coded and ranks are assigned to states for each phase relatively.

For socioeconomic or human development factors, data for all states are sourced from NFHS. For the study, data from state reports of all NFHS surveys, i.e., NFHS 1 (1992-93), NFHS 2 (1998-99), NFHS 3 (2005-06), NFHS 4 (2015-16), and NFHS 5 (2019-20). Under 2 major indicators, 6 variables were considered for the study highlighting the absolute grassroots situations. All the figures, calculations, and tables were made in Microsoft Excel due to its user-friendly interface and simple operations.

2.1 Variable key

Indicator	Variable	Period	Unit	Source
Economic indicators	1. Y-o-Y GDP growth rate	2012-13 to 2020-21	Constant Prices (2011-12)	CMIE, States of India
	2. Per capita NSDP	Phase 1: 1993-94 to 1998-99 Phase 2: 1999-00 to 2002-03 Phase 3: 2004-05 to 2010-11 Phase 4: 2011-12 to 2020-21	Phase 1: Constant Prices 1993-94 Phase 2: Constant Prices 1999-00 Phase 3: Constant Prices 2004-05 Phase 4: Constant Prices 2011-12	MOSPI
Human development indicators	3. Sex ratio at birth in the last five years	NFHS I to IV Period (1992-20)	Per 1000 males	NFHS State reports
	4. Under-five mortality rates	NFHS I to IV Period (1992-20)	Per 1000 live births	NFHS State reports
	5. Women who are literate (%)	NFHS I to IV Period (1992-20)	Percentage	NFHS State reports
	6. Women age 20-24 years married before age 18 years (%)	NFHS I to IV Period (1992-20)	Percentage	NFHS State reports

3. Inter-state growth differentials based on economic variables

3.1 Growth in State Domestic Product

The economic growth differential across states of a country has been significant even across economies of the world due to variations in endowments and other socioeconomic factors. This part elucidates the Y-o-Y growth rate of GDP (in constant prices; the Base year 2011-12) across different states of India in the last decade.

In 2012-13, nearly half of the taken states registered slower growth (Red shaded, Refer: Table 1A). Large states, i.e., Madhya Pradesh (11.45 %) and Gujarat (10.89%), recorded the highest GDP growth rate. Northeastern states, namely Tripura (8.67%) and Mizoram (7.15%) registered notable growth, whereas three northern states, Punjab (5.32%), Uttar Pradesh (4.72%), and Rajasthan (4.54%), recorded GDP growth rate fewer than India's national growth rate, 5.46%. The inter-state variation in was profound with a 94% coefficient of variation (Figure 1).

During 2015-16, the majority of the Indian states achieved high annual growth rates, with Assam (15.67%) recording the maximum. The GDP growth rate of Maharashtra (7.20%), West Bengal (6.13%),

and Bihar (6.08%) also improved. However, northeastern states, namely Tripura and Arunachal Pradesh, previously registering remarkable growth, recorded a yo-y growth rate of -0.66% and -0.99%, respectively. Nevertheless, northern states, Rajasthan (8.02%) and Uttar Pradesh (8.85%) achieved higher than India's national growth rate (8.00%), and the volatility in the inter-state growth through the coefficient of variation plummeted to 61% compared to 89% in the previous year.

Between 2016-18, India's annual growth peaked at 8.26% and then fell to 6.80%. Odisha (15.44%), Tripura (14.00%), Karnataka (13.29%), and Madhya Pradesh (12.40%) registered remarkable growth in 2016-17. The coefficient of variation significantly dropped to 31%, highlighting the inter-state growth rates convergence. During 2017-18, the annual growth rate of India fell along with other major states. However, Sikkim (7.15% to 14.78%), Gujarat (9.72% to 10.72%), and Manipur (4.01% to 9.77%) fared tremendously well.

In 2018-19 and 2019-20, states that registered improved growth in 2017-18 plummeted. The annual growth rate of Gujarat fell to 8.88% in 2018-19 and then further to 7.26% in 2019-20, for Sikkim, it fell to 5.38% in 2018-19 before increasing marginally to 5.77%, Madhya Pradesh's annual growth rate increased to 6.49% in 2018-19 and 9.63% in 2019-20.

Table 1: Y-o-Y change in Gross Domestic Product at constant prices (Base Year: 2011-12)

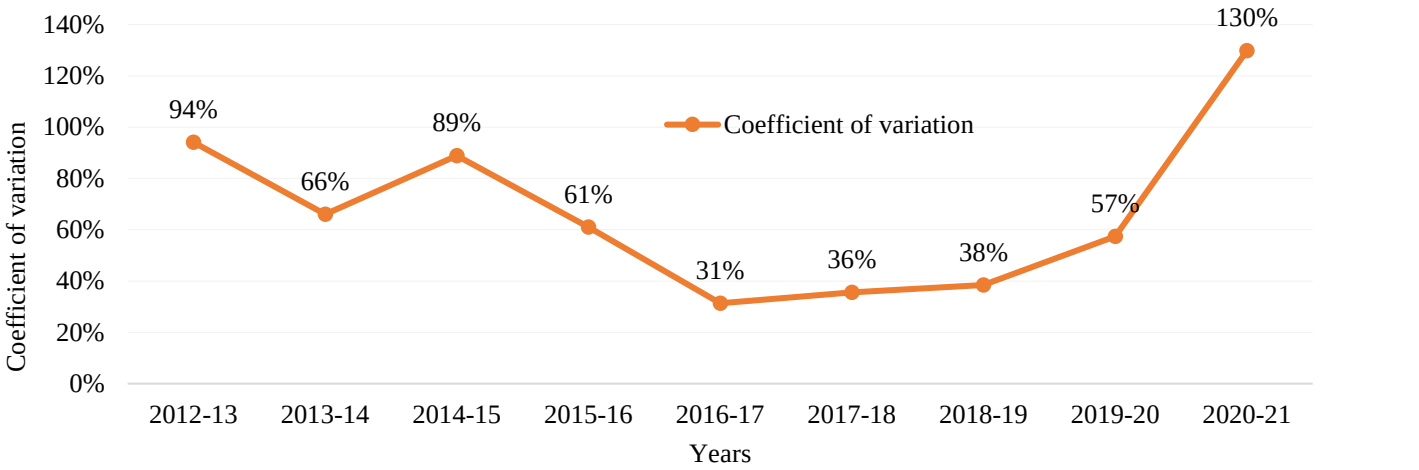
States/Year	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Madhya Pradesh	11.45	3.82	5.15	9.06	12.40	5.63	6.49	9.63	-3.37
Gujarat	10.89	7.56	10.51	10.23	9.71	10.72	8.88	7.26	
Tripura	8.67	9.32	18.17	-0.66	14.00	8.37	11.06	9.4	3.96
Jharkhand	8.17	1.57	12.49	-6.25	10.46	9.01	8.87	3.98	-4.75
Chandigarh	8.08	8.97	3.46	9.02	7.96	5.8	3.92	5.53	
Haryana	7.86	8.29	6.63	11.57	10.48	6.69	6.12	8.24	-5.65
Uttarakhand	7.27	8.47	5.29	8.08	9.83	7.95	5.77	4.30	
Mizoram	7.15	16.21	24.59	9.44	10.32	8.55	8.91	12.2	
Kerala	6.50	3.89	4.26	7.44	7.56	6.36	6.49	3.45	
Himachal Pradesh	6.41	7.06	7.50	8.10	7.04	6.16	6.55	4.90	-6.18
Karnataka	6.11	9.55	6.24	11.08	13.29	8.61	6.49	5	-2.62
Maharashtra	6.06	6.9	6.31	7.2	9.23	5.95	6.2	4.96	
Nagaland	5.68	7.19	4.39	1.82	6.75	5.05	2.6	7.43	
Tamil Nadu	5.37	7.6	4.92	8.24	7.15	8.59	7.01	6.13	1.42
Odisha	5.36	9.26	1.8	7.97	15.44	7.16	6.88	6.72	-3.61
Punjab	5.32	6.63	4.23	5.74	6.87	6.43	5.91	4.02	-6.63
Chhattisgarh	5	10	1.77	2.57	12.13	3.01	7.98	5.12	-1.77
Uttar Pradesh	4.72	5.79	4.03	8.85	11.37	4.57	6.26	3.81	-6.36
Rajasthan	4.54	6.97	7.26	8.02	5.93	4.71	4.94	5.03	-6.61
West Bengal	4.17	3.01	2.84	6.13	7.2	6.36	6.35	6.13	1.06
Bihar	3.93	4.98	3.65	6.08	7.52	7.91	10.86	7.41	2.5
Telangana	2.97	5.36	6.76	11.58	9.34	9.74	9.82	5.95	-0.62
Assam	2.91	4.88	6.92	15.67	5.74	8.83	5.06	2.95	
Sikkim	2.29	6.07	7.9	9.93	7.15	14.78	5.38	5.77	3.73
Meghalaya	2.19	1.83	-2.82	2.47	5.29	3.84	5.12	6.2	-7.52
Arunachal Pradesh	2.14	9.2	16.57	-0.99	4.59	4.57	6.72	7.8	
Manipur	0.61	8.64	8	7.73	4.01	9.77	2.93	7.11	
Andhra Pradesh	0.32	6.96	9.2	12.16	8.34	10.09	4.88	7.23	-2.58
India	5.46	6.39	7.41	8	8.26	6.8	6.53	4.04	-7.25

Source: Centre for Monitoring Indian Economy, States of India Database (2012-2021)

Table 1A: Color scheme for Table 1

Colour	Lower end	Higher-end	Colour	Lower end	Higher-end
	-7.52	-1.10		11.76	18.18
	-1.11	5.32		18.19	24.61
	5.33	11.75			

Figure 1: Coefficient of variation within states



Source: Calculations based on Center for Monitoring Indian Economy's y-o-y GDP data

Even though the volatility of inter-state growth showed an increasing trend after reaching a minimum in 2017-18, it remained far less than the coefficient of variation in the initial years of the decade. These trends highlight the inter-state variations in y-o-y growth percentage, pointing towards historic uneven annual GDP growth rate. The growth rates of the states were unstable across years as the correlation[3] between the years, albeit positive, have remained less than 0.4.

3.2 Differential in Per Capita State Domestic Product

The amount of state domestic product cannot solely understand the gravity of the economic performance of states. Therefore, in this sub-section, the per capita NSDP of each state for each phase.[4] is stated in index values[5] and ranks are assigned relatively.

In Phase 1 (1993-98), Punjab was the highest per capita NSDP index. Other leading states were Maharashtra (152, 2)[6], Gujarat (140, 3), Haryana (138, 4), and Tamil Nadu (120, 5). States close to India average (100) were Arunachal Pradesh (101, 11), Karnataka (102, 10), Kerala (103, 9), and Himachal Pradesh (104, 8). States with per capita NSDP, substantially lower than Indian average, were Bihar (36, 26) which ranked the lowest, Orissa[7] (59, 25), Uttar Pradesh (62, 24), and Assam (66, 23).

At the eve of the decade introducing economic reforms (Phase 2), Punjab again topped the list with the highest per capita NSDP index. Other states enjoying the high per capita NSDP index were Haryana (150, 2), Maharashtra (136, 3), Himachal Pradesh (133, 4), and Kerala (123, 5). Where Kerala's rank

[3] For the correlation matrix, refer to Appendix.
[4] Numeric value of each phase is an average of per capita income of all years following in that phase. For calculation, refer excel workbook.
[5] Index values of each phase for per capita NSDP, with all India =100. The calculations and index value of each year since 1993 is available in the workbook.
[6] The first numeric highlights that per capita NSDP, and the second numeric is the state's rank relative to other states. For instance, the index of per capita NSDP for Maharashtra is 152 and is ranked 2nd in the country.
[7] The state is written in its old form i.e., Orissa and not Odisha, to retain the spelling of the time period.

improved from 9th to 5th, Gujarat slipped 4 ranks to reach 7th position. Eastern and northeastern states, i.e., West Bengal (101, 10), Mizoram (103, 9), and Nagaland (96, 12) were close to the Indian average.

Figure 2: Per capita NSDP index of Phase 1

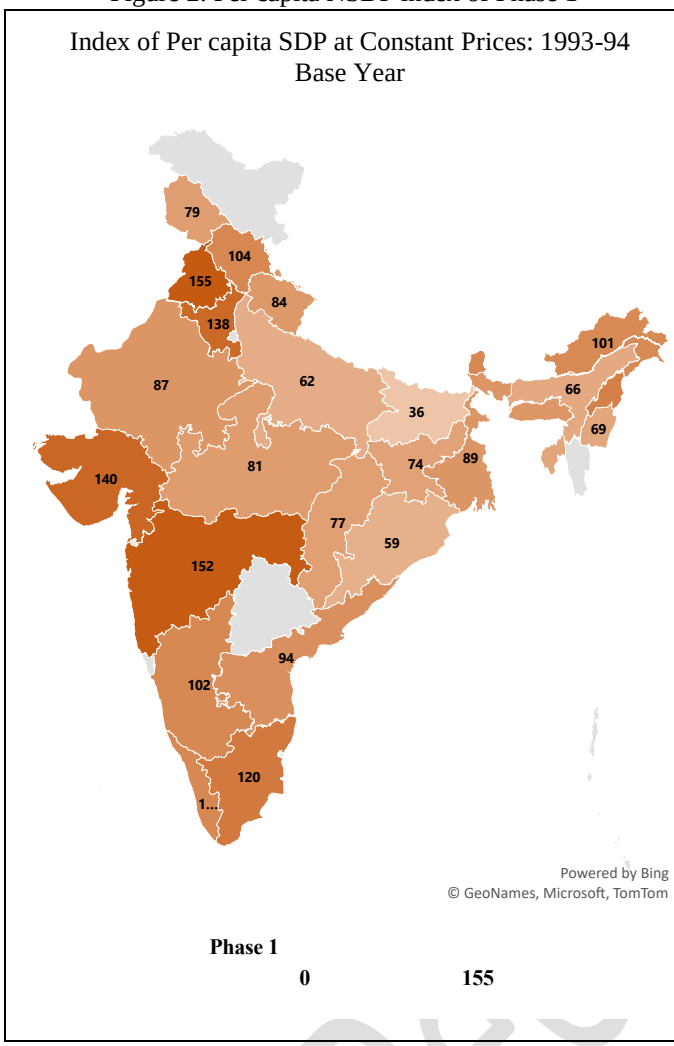
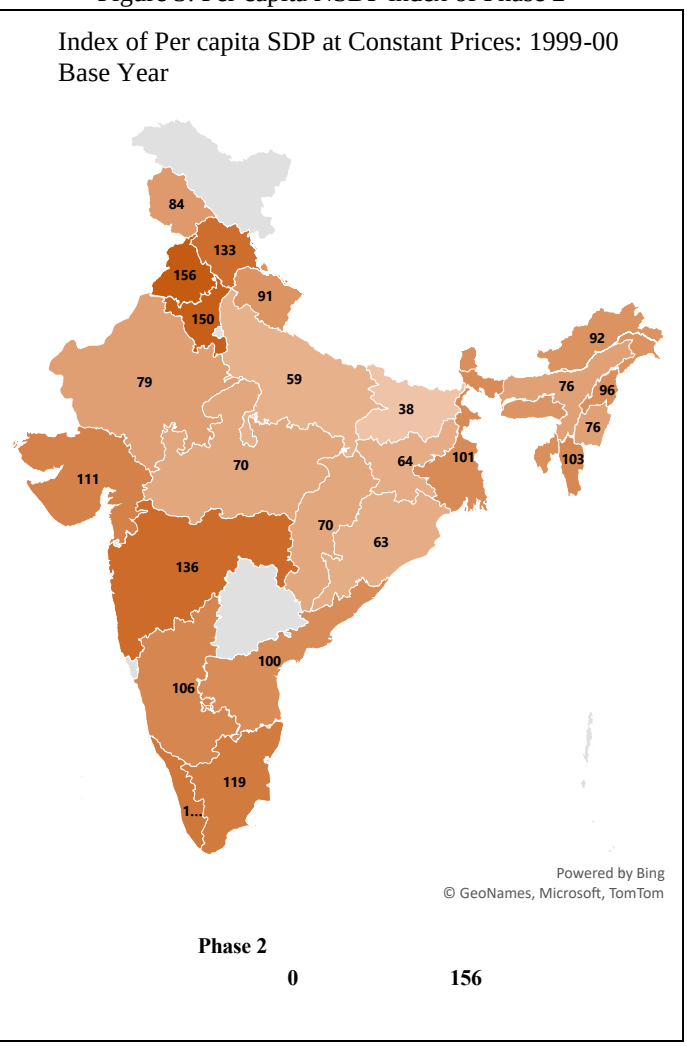


Figure 3: Per capita NSDP index of Phase 2



Source: Ministry of Statistics and Program Implementation, Government of India

Prominent states like Maharashtra (159, 1), Haryana (158, 2), Gujarat (140, 3) retained their position in phase 3 as well. Kerala (137, 4) managed to retain its position in the top 5, moreover, Tamil Nadu (136, 5) that joined the club of top advanced states in terms of per capita NSDP. Remaining states like Uttar Pradesh, Bihar, Jharkhand continued to be states with low per capita NSDP.

In Phase 4, unexpected states topped the list with Sikkim (258, 1) leading from the front. Following Sikkim were Haryana (178, 2), Uttarakhand (165, 3), Maharashtra (159, 4), and Madhya Pradesh (156, 5). Bihar (33, 28) and Uttar Pradesh (48, 27) remained at the bottom of the list. Remaining states moved farther from the national average.

Figure 4: Per capita NSDP index of Phase 3

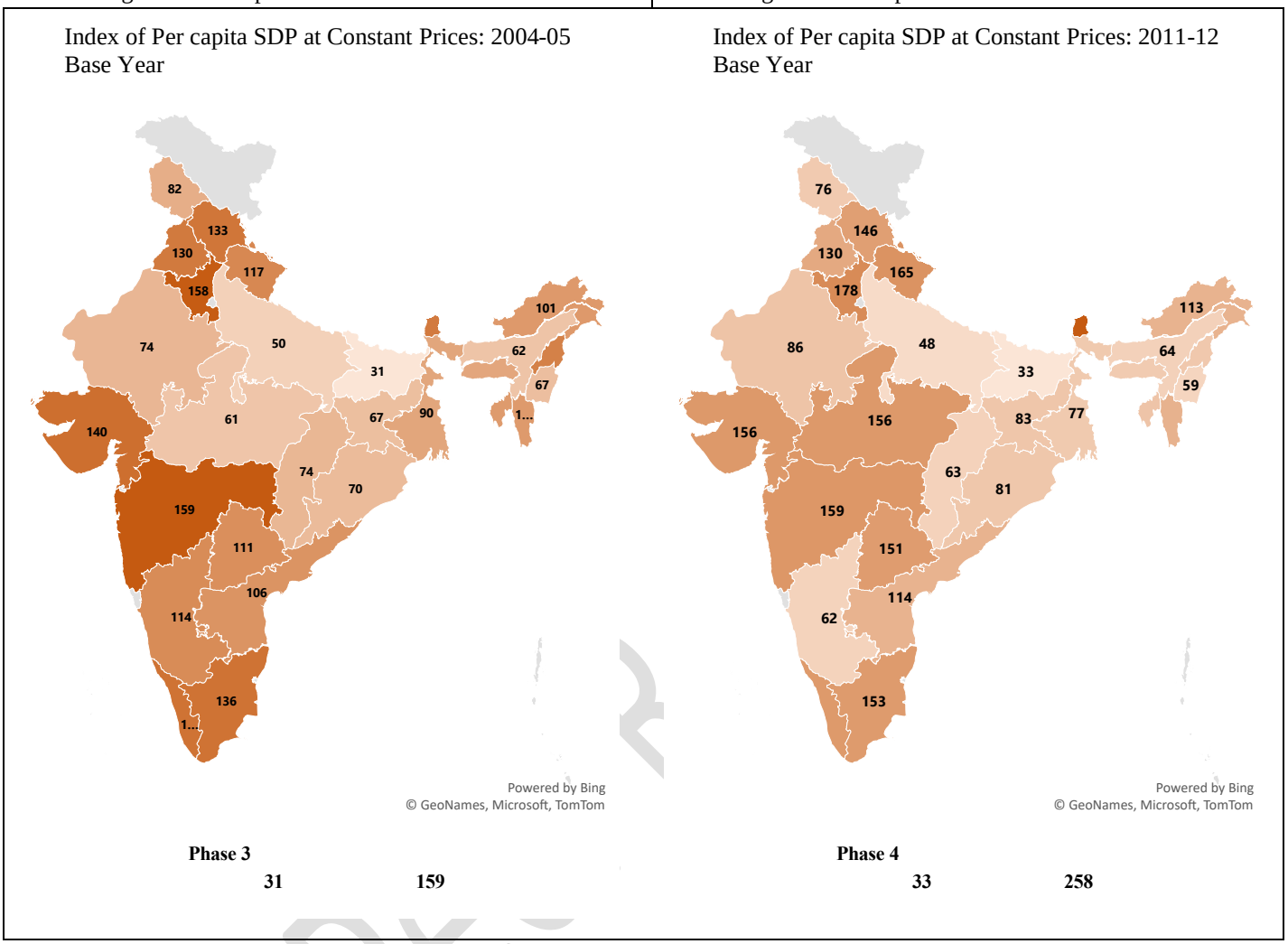


Figure 5: Per capita NSDP index of Phase 5

Source: Ministry of Statistics and Program Implementation, Government of India

Table 2: Index of Per capita NSDP and Ranks of Indian states across 4 Phases

	Phase 1 (1993-98)		Phase 2 (1999-2003)		Phase 3 (2004-2010)		Phase 4 (2011-2020)	
States/Year	Per capita NSDP	Ranks	Per capita NSDP	Ranks	Per capita NSDP	Ranks	Per capita NSDP	Ranks
Andhra Pradesh	94	12	100	11	106	13	114	13
Arunachal Pradesh	101	11	92	15	101	14	113	14
Assam	66	23	76	21	62	25	64	23
Bihar	36	26	38	27	31	28	33	28
Chhattisgarh	77	19	70	22	74	21	63	24
Gujarat	140	3	111	7	140	3	156	6
Haryana	138	4	150	2	158	2	178	2
Himachal Pradesh	104	8	133	4	133	6	146	10
Jammu & Kashmir	79	18	84	18	82	19	76	21
Jharkhand	74	20	64	24	67	24	83	17
Karnataka	102	10	106	8	114	11	62	25
Kerala	103	9	123	5	137	4	155	7
Madhya Pradesh	81	17	70	23	61	26	156	5
Maharashtra	152	2	136	3	159	1	159	4
Manipur	69	22	76	20	67	23	59	26
Meghalaya	87	15	91	16	89	18	75	22

Mizoram	NA		103	9	100	15	115	12
Nagaland	111	6	96	12	124	9	80	19
Orissa	59	25	63	25	70	22	81	18
Punjab	155	1	156	1	130	7	130	11
Rajasthan	87	14	79	19	74	20	86	15
Sikkim	104	7	95	14	130	8	258	1
Tamil Nadu	120	5	119	6	136	5	153	8
Telangana	NA		NA		111	12	151	9
Tripura	71	21	96	13	100	16	86	16
Uttar Pradesh	62	24	59	26	50	27	48	27
Uttarakhand	84	16	91	17	117	10	165	3
West Bengal	89	13	101	10	90	17	77	20
Source: Calculations based on Ministry of Statistics and Program Implementation data								

Table 2A: Color scheme for Table 2

Rank 1-5	Top-performing states
Rank 6-12	Average performing states
Rank 13-19	Low performing states
Rank 20-28	Poorly performing states

Through this section, it is evident that a lack of focus on state-specific growth strategies has resulted in historically inconsistent growth patterns leading to a regional disparity across states. This section identifies the top five exceptionally well performing states (i.e., Gujarat, Maharashtra, Tamil Nadu, Punjab, and Haryana) in economic indicators. The top five states maintained a strong position in per capita NSDP throughout the phases and have done considerably well in maintaining high Y-o-Y GDP growth rate[8].

4. Performance of economically well-off states on social parameters

This section assesses the performance on human development parameters of economically well-off states, i.e., Gujarat, Haryana, Maharashtra, Tamil Nadu, and Punjab, determined in the preceding section.

4.1 Sex ratio at birth for children born in the last five years (females per 1,000 males)

The sex ratio at birth for children born in the last five years aids in tracking sex preferences, willingness to determine the fetus's sex, and desire to terminate the pregnancy if the baby's sex is unwelcomed.

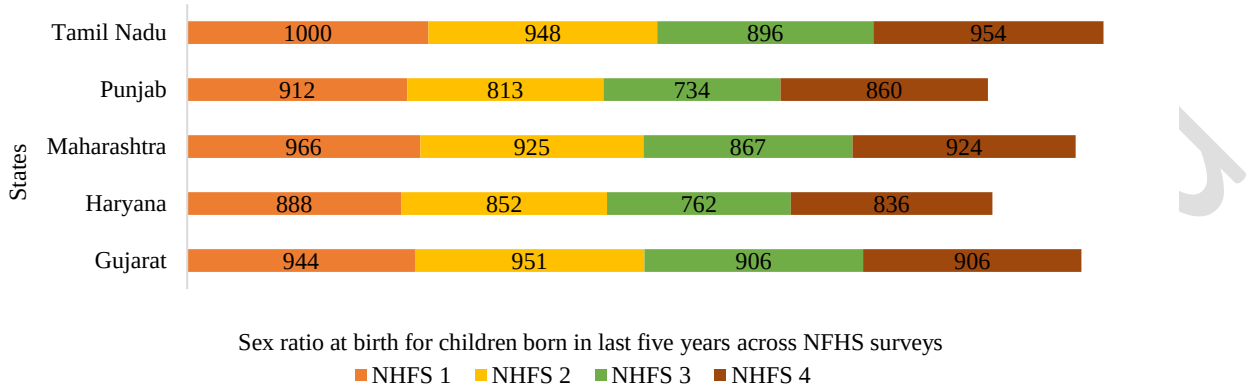
Using data from NFHS 1, Tamil Nadu leads with the perfect sex ratio, setting an example in the early 1990s. Tamil Nadu (1000) was followed by Maharashtra (966) and Gujarat (944). Out of the five states, North Indian states such as Punjab (912) and Haryana (888) lags behind. Interestingly, Haryana (888) one of the top-performing states in per capita NSDP was the second-worst performing state ahead of Rajasthan (880) during 1992-93.

However, Gujarat (951) took the lead followed by Tamil Nadu (948) and Maharashtra (925) in NFHS 2. Whereas both Punjab (813) and Haryana (852) see a further decline from NFHS 1. Punjab was the worst state in terms of sex ratio in 1999-00. Surprisingly, Punjab was leading the per-capita income indicator in both NFHS 1 and NFHS 2 (See table 2), indicating that income may not be the sufficient indicator to determine the development of the state. Thus, justifying the nature and methodology of the current study.

[8] These states have maintained themselves in green or above zones throughout these years and are continuously ranked in top-five for per capita NSDP.

Interestingly in NFHS 3 all the 5 states see a steep decline in sex ratio when compared to NFHS 1 and NFHS 2. With Gujarat (906) taking the lead again, followed by Tamil Nadu (896) and Maharashtra (867). Punjab (734) again sees a further decline along with Haryana (762). Tamil Nadu (954) takes the leading spot out of the five states in NFHS 4 followed by Maharashtra (924) and Gujarat (906). Though there is a recovery from NFHS 3, Haryana (836) and Punjab (860) still remained at the bottom of the list.

Figure 6: Sex ratio at birth for children born in last five years (females per 1000 males)



Source: National Family Health Survey (1, 2, 3, 4), State reports

Over the period of four NFHS surveys, the economically well-off states, Punjab and Haryana have performed extremely poorly in terms of the sex ratio at birth. States not only remain at the bottom of selected state list, but performed worst as compared to all Indian states. Sex ratio at birth of Tamil Nadu started with the perfect ratio but started plummeting thereafter before increasing to 954 in NFHS-4. Maharashtra observed a similar pattern as Tamil Nadu, it started with sex ratio at 966, observed fall till 867, before increasing to 924 during NFHS 4. Gujarat, over the 4 NFHS's, observed only marginal volatility in sex ratio numbers.

4.2 Percentage of women who are literate between the ages of 15-49

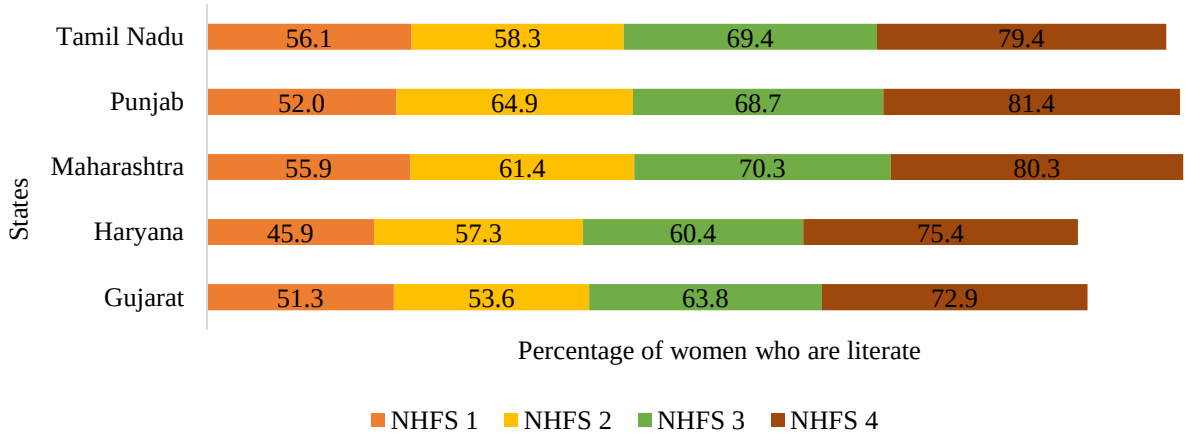
As per NFHS, a person is considered literate if they have completed at least the sixth grade of their education or passed the simple literacy test in their survey. The objective of this metric is to estimate the literacy rate of women aged 15 to 49 in a given state. The age group considered in the metric is also usually the working age of women.

In NFHS 1 both Maharashtra (56%) and Tamil Nadu (56%) take the lead followed by Punjab (52%). Gujarat slightly falls from Punjab with 51% and out of the 5 states Haryana (46%) comes in the last. Surprisingly, out of the 5 states in NFHS 2, Punjab (65%) sees the highest women literacy. It was followed by Maharashtra and Tamil Nadu with 61% and 58%, respectively. In NFHS 3, Maharashtra (70%) takes the lead, followed by Punjab (69%) and Tamil Nadu (69%). Despite seeing a significant rise in women literacy from NFHS-2, Gujarat (64%) fall behind the remaining three states. Haryana continues to remain at the bottom.

All the states see a significant increase in women literacy rate in NFHS 4. Punjab (81.4%) takes the lead closely followed Tamil Nadu (80.4%) and Maharashtra (80.3%). Though Haryana (75.4%) and Gujarat (72.9%) have seen a significant rise, they have performed poorly out of the 5 states.

Unlike Sex ratio at Birth, Punjab improved significantly in women's literacy after NFHS-1; however, Haryana continued to perform poorly. Out of all five states, Tamil Nadu and Maharashtra have not only performed well but showed significant improvement in women's literacy.

Figure 7: Percentage of women who are literate between the age of 15-59



Source: National Family Health Survey (1, 2, 3, 4), State reports

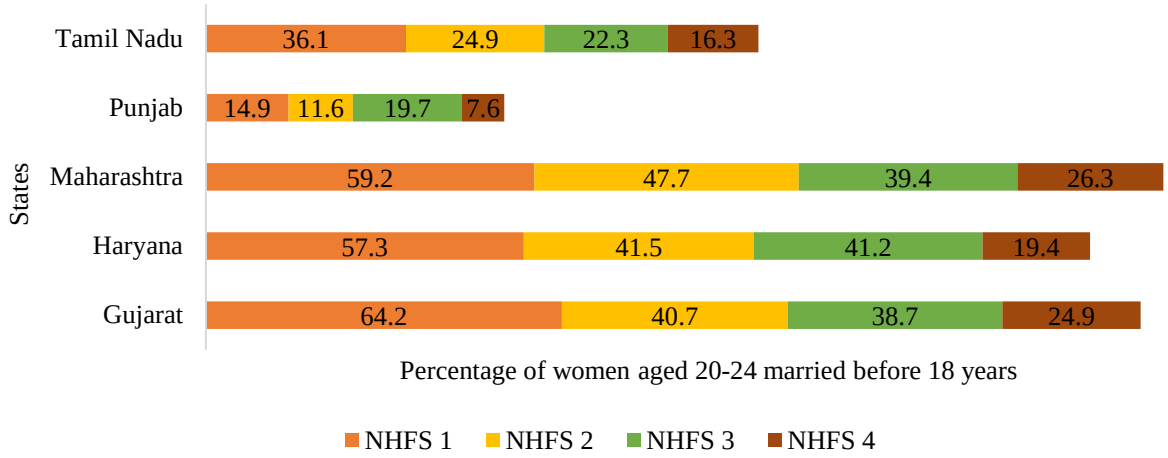
4.3 Women aged 20-24 years married before age 18 years (%)

Marriage before the age of 18 is not only a violation of one's human rights but it also jeopardizes a girl's development by causing early pregnancy and social isolation. It is restricting a woman's career, occupational progression, financial freedom, putting her at the danger of domestic abuse. While this practice is more common among girls than boys, it is a violation of rights regardless of sex. Therefore, this metric is considered and represents the percentage of women who were married before the age of 18 and were between the ages of 20 and 24 at the time of the survey.

In NFHS 1, Punjab (15%) takes the lead followed by Tamil Nadu (36%), whereas Haryana (57%), Maharashtra (59%) and Gujarat (64%) have skyrocketing figures of women getting married before 18. All the 5 states improve their proportion to below 50% in NFHS 2, with Punjab (11.6%) taking the lead followed by Tamil Nadu (24.9%) and Gujarat (40.7%). Although Punjab (20%) takes the lead again, followed by Tamil Nadu (22%) the proportion of women aged between 20-24 married before 18 has increased in NFHS 3.

All the 5 states show a significant improvement in this metric in NFHS 4, Punjab (7.6%) takes the lead followed by Tamil Nadu (16.3%), Haryana (19.4%), Gujarat (24.9%) and Maharashtra (26.3%).

Figure 8: Percentage of women aged 20-24 years married before the age of 18 years



Source: National Family Health Survey (1, 2, 3, 4), State Reports

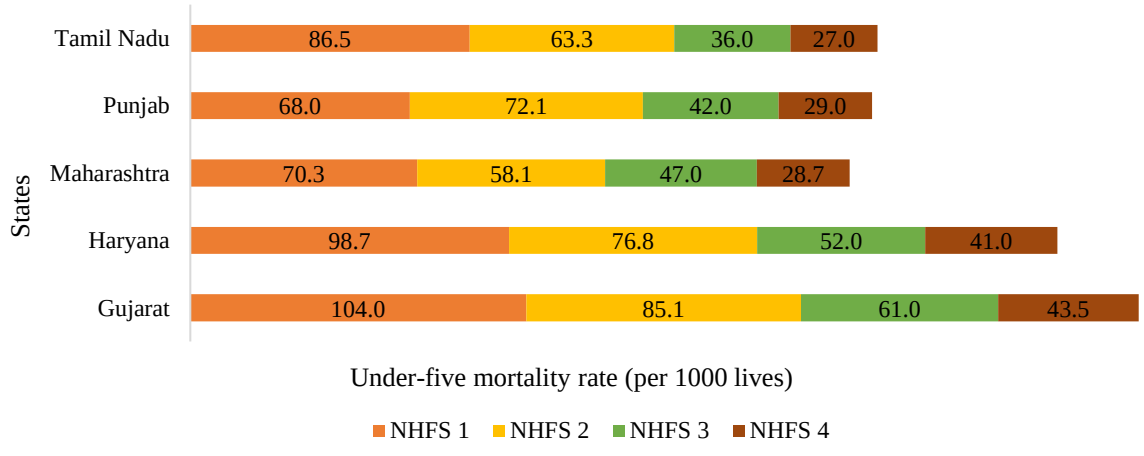
4.4 Under-five mortality rate (per 1000 live births)

Under-five mortality rate evaluates child survival and reflect the social, economic, and environmental circumstances in which children live, as well as their health care.

In NFHS 1, Punjab (68) takes the lead, followed by Maharashtra (70) and Tamil Nadu (87) in the least number of under-five deaths per 1000 live births. On the contrary, out of the five states Gujarat (104) records the highest under-five deaths followed by Haryana (99). Whereas, In NFHS 2, Maharashtra (58) takes the lead in the least number of deaths followed by Tamil Nadu (63) and Punjab (72).

Furthermore, all the five states significantly improved their respective metrics in NFHS 3, Tamil Nadu reported the least deaths as (36), followed by Punjab (42), Maharashtra (47), Haryana (53), and Gujarat (61). All the five states improved further in NFHS 4, with Tamil Nadu (27) taking the lead again, followed by Maharashtra (29) and Punjab (29).

Figure 9: Under-five mortality rate (per 1000 live births)



Source: National Family Health Survey (1, 2, 3, 4), State Reports

Conclusion

An analysis of data over the last three decades over economic and human development indicators shows that there are considerable inter-state differentials. On analyzing economic indicator, State Domestic Product, data suggests that while Gujarat and Tamil Nadu have recorded the high GDP growth rates, large states like Uttar Pradesh and Rajasthan record below national average rates. It can be attributed to these

states' agrarian -dominated economies. However, Punjab and Haryana-another agrarian state have remained in green zone and showed the least volatility in growth rates.

This analysis when coupled with historic per capita NSDP data, it identifies the top five exceptionally well performing states (i.e., Gujarat, Maharashtra, Tamil Nadu, Punjab, and Haryana) in economic indicators. The top five states maintained a strong position in per capita NSDP throughout the phases and have done considerably well in maintaining high Y-o-Y GDP growth rate.

On social Indicators, out of the five states, Tamil Nadu and Punjab performed exceptionally well. Haryana, one of the high per-capita NSDP state, performed exceptionally poor in sex ratio as is evident from the tremendous amount of female feticide in the state. Punjab did not perform good either; however, in the rest of the social indicators, its performance was commendable. Punjab, out of the list, had the least number of women getting married before the age of 18. In terms of under-five mortality rate, again, Punjab, Maharashtra, and Tamil Nadu performed well.

Looking forward, it is necessary to make up for the lapses in human development indicators. While the central governments have taken several measures to better in social parameters, a definitive state-specific strategies would lead towards convergence in historically inconsistent growth patterns and improvement in social indicators. On bridging the disparities in social indicators, a ripple effect would result in a positive impact of policies on the ground, causing convergence in state prosperity.

References

Centre for Monitoring Indian Economy Pvt. Ltd. States of India Database. (2020-21). Gross Domestic Product at Constant Prices: Base Year 2011-12. Centre for Monitoring Indian Economy Pvt. Ltd. Retrieved from https://bit.ly/3C86Ycj

International Institute for Population Sciences (IIPS). (1995). National Family Health Survey (NFHS-1), 1992-93. IIPS. Retrieved from https://bit.ly/30IYFXe

International Institute for Population Sciences (IIPS). (2000). National Family Health Survey (NFHS-2), 1998-99. IIPS. Retrieved from https://bit.ly/3CyyTCx

International Institute for Population Sciences (IIPS). (2007). National Family Health Survey (NFHS-3), 2005-06. IIPS. Retrieved from https://bit.ly/3oNzRGb

International Institute for Population Sciences (IIPS). (2017). National Family Health Survey (NFHS-4), 2015-16. IIPS. Retrieved from https://bit.ly/3kOVLr9

International Institute for Population Sciences (IIPS). (2021). National Family Health Survey (NFHS-5), 2019-20. IIPS. Retrieved from https://bit.ly/3Fw1TwG

International Institute for Population Sciences. National Family Health Survey (NFHS 1,2,3,4,5), India: State Reports. Mumbai, India: International Institute for Population Sciences

Ministry of Statistics and Program Implementation. (2007). Statement of State Domestic Product and other aggregates, 1993-1994 series. National Statistical Office. Retrieved from https://bit.ly/3naigsi

Ministry of Statistics and Program Implementation. (2010). Statement of State Domestic Product and other aggregates, 1999-2000 series. National Statistical Office. Retrieved from https://bit.ly/3Hf2y7e

Ministry of Statistics and Program Implementation. (n.d.). Statement of State Domestic Product and other aggregates, 2011-2012 series. National Statistical Office. Retrieved from https://bit.ly/3C9rYj4

Ministry of Statistics and Program Implementation. (n.d.). Statement of State Domestic Product and other aggregates, 2004-2005 series. National Statistical Office. Retrieved from https://bit.ly/3kyDvCn

Appendix

Table A1: Correlation matrix of Y-o-Y GDP growth rate at Constant Prices (Base Year 2011-12 prices)

Correlation matrix	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
2012-13	1							
2013-14	0.66	1						
2014-15	-0.3	-0.16	1					
2015-16	-0.23	-0.08	0.13	1				
2016-17	0.22	0.15	0.22	0.15	1			
2017-18	0.22	0.36	0.08	0.25	0.24	1		
2018-19	0.01	0.11	0.13	-0.07	0.41	0.27	1	
2019-20	0.71	0.71	0.01	-0.13	0.14	0.3	-0.08	1

Source: Calculations based on Center for Monitoring Indian Economy, States of India Data