

## RELATIVE CHANGES IN HIGHER EDUCATION BETWEEN 2011-12 AND 2018-19 OF THE SELECTED STATES IN INDIA: AN ANALYSIS BASED ON AISHE DATA

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### ABSTRACT

For a number of factors privatization of higher education is an alternative towards holistic development of education in India. Efficiency, excellence and equity being the three broad objectives - the study attempts to examine the status, and performance of few selected Indian states with respect to provisioning higher education vis-à-vis socio economic development. All India Survey on Higher Education (AISHE) data has been used to explore the functioning of various higher education institutions, effective utilization of those by the population and reflection, if any of such facilities on selected social indicators.

**Keywords:** AISHE, Relative change, Growth, GER, CPI

### INTRODUCTION

The post higher secondary education is known as Higher Education in India. The growth of higher education after independence in India is voluminous. The following is the status:

Table 1: Status of higher education in India

Institution	1905	1990	1996	2008	2018
University	30	177	214	431	1009
College	750	7346	6703	20677	42201
Enrolment ('000)	263	492.5	675.5	11612	35014.08
Teacher ('000)	24.0	272.7	321.0	505.0	13680.03

Source: AISHE Report

Higher education system in India covers all fields of knowledge - Arts, Science, Commerce, Management, Education, Teacher training, Engineering/Technology, Medical, Law, Agriculture, Veterinary, Music, Performing Arts, national and international languages, culture, communications, etc. Growth in the colleges is only 56% but for enrolment the figure is 33% as on 2018-19 Ghara (2019). There are different indices to measure quantity in higher education - number of Universities, number of Colleges, number of Standalone institutions, Gross Enrolment Ratio, College population Index. Institutional density, number of teachers, enrolment, average enrolment per college, pupil teacher ratio, gender parity index, etc. The measures are not applicable for all regions and category of institutions. The quality of universities and colleges are maintained by accreditation. Mainly, NAAC assesses and accredits with 7 points grading based on 7 criteria. The financial payout is being maintained and balanced by central budget though education is in concurrent list. There is a huge demand for quality higher education in India. In India, privatization in higher education was initiated through the Liberalization, Privatization and Globalization policy.

In this communication, it is intended to show that after 2011 the changes in the higher education system is relatively significant and also to have an idea 'how different states have agreed to declare themselves as a big player in the country'. In this respect, AISHE data is being used.

## **DATA**

It is intended to have idea using data from 2012-13 to 2018-19. The reports and raw data of AISHE are being used. Variables like number of universities, colleges, standalone institutions, number of students enrolled (STD) at different levels, number of teachers (TCH1)- male-female, average enrolment per college (AEC), college population index (CPI), pupil teacher ratio (PTR), gross enrolment ratio (GER), gender parity index (GPI), number of institutions NAAC accredited (ACC), etc. have been considered here for the study. For a primary analysis only 8 states have been considered - Andhra Pradesh, Gujarat, Jharkhand, Madhya Pradesh, Odisha, Tamil Nadu, Uttar Pradesh and West Bengal.

## **RESULTS**

While accessing the data of AISHE portal, it is being observed that the data are available widely in AISHE Report 2018-19. For each of the variables, relative growth rate has been calculated as

UNI13 = Number of Universities of 2013 x 100/ Number of Universities of 2012, and so for UNI14, UNI15, UNI16, UNI17 & UNI18.

COL13 = Number of Colleges of 2013 x 100/ Number of Colleges of 2012, and so for COL14, COL15, COL16, COL17 & COL18.

SA13 = Number of Standalone institutions of 2013 x 100/ Number of Standalone institutions of 2012, and so for SA14, SAI15, SA16, SA17 & SAI8.

STD13 = enrolment of 2013 x 100/ enrolment of 2012, and so for STD14, STD15, STD16, STD17 & STD18.

TCH13 = Number of Teachers of 2013 x 100/ Number of Teachers of 2012, and so for TCH14, TCH15, TCH16, TCH17 & TCH18.

AEC13 = Average enrolment per college of 2013 x 100/ Average enrolment per college of 2012, and so for AEC14, AEC15, AEC16, AEC17 & AEC18.

CPI13 = College Population Index of 2013 x 100/ College Population Index of 2012, and so for CPI14, CPI15, CPI16, CPI17 & CPI18.

GER13 = Gross Enrolment Ratio of 2013 x 100/ Gross Enrolment Ratio of 2012, and so for GER14, GER15, GER16, GER17 & GER18.

PTR13 = Student(Pupil) Teacher Ratio of 2013 x 100/ Student(Pupil) Teacher Ratio of 2012, and so for PTR14, PTR15, PTR16, PTR17 & PTR18.

GPI13 = Gender Parity Index of 2013 x 100/ Gender Parity Index of 2012, and so for GPI 14, GPI15, GPI16, GPI17 & GPI18.

Considering the ranks, significant number of enrolment were at Uttar Pradesh, then at Punjab, Rajasthan, Chhattisgarh, Madhya Pradesh, Gujarat, Karnataka, Uttarakhand, Haryana, West Bengal, etc. Regarding West Bengal it is interesting to note that there were no private university in 2012 and in 2018 the position in terms of enrolment in private university at the state is 10th in India.

Table 2: Relative rates in the number of institutes of the selected states for university

STATE	UNI13	UNI14	UNI15	UNI16	UNI17	UNI18	UNI18_12
INDIA	108.42	105.12	105.13	108.14	104.51	110.08	149.03
ANDHRA PRADESH	100.00	103.70	100.00	117.86	103.03	120.59	151.85
GUJARAT	107.32	111.36	116.33	107.77	104.84	110.77	175.61
JHARKHAND	100.00	108.33	107.69	128.57	116.67	119.05	208.33
MADHYA PRADESH	108.33	105.13	104.88	111.63	108.33	125.00	180.56
ODISHA	110.53	100.00	100.00	114.29	104.17	112.00	147.37
TAMIL NADU	103.57	100.00	100.00	100.00	100.00	101.72	105.36
UTTAR PRADESH	105.08	101.61	106.35	107.46	105.56	103.95	133.90
WEST BENGAL	103.85	114.81	109.68	120.59	104.88	104.65	173.08

Source: AISHE portal/reports

In terms of growth with respect to the number of universities for the year 2013-14, Odisha is maximum and then in Madhya Pradesh; for the year 2014-15 maximum is in West Bengal and then in Jharkhand; for the year 2015-16 maximum is in Gujarat and then in West Bengal; for the year 2016-17 maximum is in Jharkhand and then in Andhra Pradesh; for the year 2017-18 maximum is in Jharkhand and then in Madhya Pradesh; for the year 2018-19 maximum is in Andhra Pradesh and then in Jharkhand. However for the period between 2012-13 to 2018-19 maximum growth has been recorded in Jharkhand and then in Madhya Pradesh.

Table 3: Relative rates in the number of institutes of the selected states for colleges

STATE	COL13	COL14	COL15	COL16	COL17	COL18	COL18_12
INDIA	102.83	105.56	101.79	102.18	96.61	102.50	109.68
ANDHRA PRADESH	101.53	104.11	94.83	105.14	98.28	102.05	105.70
GUJARAT	103.07	101.09	102.31	106.81	104.27	103.01	122.29
JHARKHAND	105.02	106.14	108.36	90.80	100.33	101.30	111.47
MADHYA PRADESH	95.63	89.91	105.04	97.45	96.86	102.88	87.72
ODISHA	95.76	100.47	100.47	99.16	97.65	101.93	95.40
TAMIL NADU	103.22	100.68	95.63	99.88	104.03	99.76	103.01
UTTAR PRADESH	107.80	109.95	107.59	108.83	97.15	102.63	138.39
WEST BENGAL	101.60	106.80	102.31	111.46	110.45	102.35	139.88

Source: AISHE portal/reports

Considering the rate of increase in terms of growth with respect to the number of colleges for the year 2013-14, it is maximum in Tamil Nadu and then in Gujarat; for the year 2014-15 maximum is in West Bengal and then in Jharkhand; for the year 2015-16 maximum is in Jharkhand and then in Uttar Pradesh; for the year 2016-17 maximum is in West Bengal and then in Uttar Pradesh; for the year 2017-18 maximum is in West Bengal and then in Gujarat; for the year 2018-19 maximum is in Andhra Pradesh and then in Uttar Pradesh. The maximum growth has been recorded in West Bengal and then in Uttar Pradesh for the period

2012-13 to 2018-19.

Table 4: Relative rates in the number of standalone institutes of the selected states

STATE	SA13	SA14	SA15	SA16	SA17	SA18	SA18_12
INDIA	100.86	105.25	97.12	97.90	86.39	106.90	93.21
ANDHRA PRADESH	77.76	102.34	93.36	116.07	84.36	103.26	75.11
GUJARAT	73.61	88.80	94.95	100.66	101.98	106.80	68.04
JHARKHAND	115.79	127.27	107.14	52.22	138.30	118.46	135.09
MADHYA PRADESH	101.02	112.41	103.83	101.95	68.09	107.19	87.72
ODISHA	99.60	155.98	99.01	101.50	90.39	101.36	143.08
TAMIL NADU	100.43	100.60	86.80	93.88	97.06	99.46	79.48
UTTAR PRADESH	103.11	124.01	103.65	108.75	84.89	108.21	132.39
WEST BENGAL	106.02	107.20	104.24	116.95	128.41	102.93	183.13

Source: AISHE portal/reports

Considering the number of standalone institutions covering nursing, poly-technique, teacher training and others, in terms of growth, for the year 2013-14 maximum change is in West Bengal and then in Jharkhand; for the year 2014-15 maximum is in Odisha and then in Jharkhand; for the year 2015-16 maximum is in Jharkhand and then in West Bengal; for the year 2016-17 maximum is in West Bengal and then in Jharkhand; for the year 2017-18 maximum is in Jharkhand and then in West Bengal; for the year 2018-19 maximum is in Jharkhand and then in Uttar Pradesh. The maximum growth has been recorded in West Bengal and then in Jharkhand between 2012-13 and 2018-19.

Table 5: Relative change of the selected states based on Total Enrolment

STATE	STD13	STD14	STD15	STD16	STD17	STD18	STD18_12
INDIA	112.38	113.62	101.15	101.63	101.10	102.42	135.92
ANDHRA PRADESH	104.66	122.95	102.25	104.64	85.72	109.29	128.98
GUJARAT	105.25	104.31	103.62	98.00	98.99	101.91	112.47
JHARKHAND	123.38	114.72	104.26	118.68	98.60	109.99	189.94
MADHYA PRADESH	119.72	103.25	97.22	101.47	105.92	101.51	131.11
ODISHA	128.93	107.90	110.63	105.70	99.95	102.49	166.64
TAMIL NADU	100.78	103.48	96.45	104.27	101.89	99.30	106.12
UTTAR PRADESH	115.50	147.80	93.98	95.20	89.81	104.02	142.70
WEST BENGAL	106.45	107.64	101.34	104.65	100.99	103.02	126.43

Source: AISHE portal/reports

The total number of enrolment in all institutes covering university, college and standalone institutions, in terms of growth, for the year 2013-14 maximum change is in Odisha and then in Jharkhand; for the year 2014-15 highest in Uttar Pradesh and then in Andhra Pradesh; for the year 2015-16 highest is in Odisha and then in Andhra Pradesh; for the year 2016-17 highest is in Jharkhand and then in West Bengal; for the year 2017-18 maximum is in Madhya Pradesh and then in Tamil Nadu; for the year 2018-19 maximum is in Jharkhand and

then in Andhra Pradesh. The maximum growth has been recorded in Jharkhand and then in Odisha between 2012-13 and 2018-19.

Table 6: Relative change of the selected states based on number of teachers

STATE	TCH13	TCH14	TCH15	TCH16	TCH17	TCH18	TCH18_12
INDIA	107.21	187.30	111.05	117.94	103.98	85.94	126.22
ANDHRA PRADESH	103.46	203.51	109.20	133.50	113.57	86.68	140.09
GUJARAT	107.13	217.09	105.60	103.68	108.38	86.75	114.74
JHARKHAND	105.87	184.56	119.50	109.07	126.46	97.55	179.06
MADHYA PRADESH	94.21	220.32	128.67	114.59	100.98	78.05	109.00
ODISHA	106.47	210.29	136.43	105.97	104.72	81.63	130.41
TAMIL NADU	103.19	192.66	103.92	106.91	102.65	90.69	106.40
UTTAR PRADESH	119.38	205.10	112.51	162.43	103.93	72.23	149.01
WEST BENGAL	109.14	217.48	106.49	110.15	108.62	84.19	132.73

Source: AISHE portal/reports

For the total number of teachers in all institutes covering university, college and standalone institutions with government and government-aided & private affiliation, in terms of growth, for the year 2013-14, the maximum change is in Uttar Pradesh and then in West Bengal; for the year 2014-15 highest in Madhya Pradesh and then in West Bengal; for the year 2015-16 highest is in Odisha and then in Madhya Pradesh; for the year 2016-17 highest is in Uttar Pradesh and then in Andhra Pradesh; for the year 2017-18 maximum is in Jharkhand and then in Andhra Pradesh; for the year 2018-19 maximum is in Jharkhand and then in Uttar Pradesh between 2012-13 and 2018-19.

Table 7: Relative change of the selected states based on number of average enrolment per college

STATE	AEC13	AEC14	AEC15	AEC17	AEC18	AEC18_12
INDIA	102.86	102.38	101.94	103.37	100.00	82.14
ANDHRA PRADESH	105.19	95.37	104.85	100.00	102.63	33.33
GUJARAT	97.58	99.50	101.49	100.00	98.75	93.00
JHARKHAND	114.19	101.69	106.11	92.86	102.20	650.00
MADHYA PRADESH	102.04	106.00	101.42	119.40	100.00	96.00
ODISHA	107.14	104.76	100.45	107.89	98.78	91.30
TAMIL NADU	105.87	103.62	100.82	104.71	103.37	45.45
UTTAR PRADESH	101.63	104.02	99.61	103.67	92.04	117.24
WEST BENGAL	104.52	101.08	103.21	102.60	105.06	327.27

Source: AISHE portal/reports

Regarding the average enrolment per college (total enrolment in colleges to the number of colleges), in terms of growth, for the year 2013-14 maximum change is in Odisha and then in Tamil Nadu; for the year 2014-15 highest in Madhya Pradesh and then in Uttar Pradesh; for the year 2015-16 highest is in Jharkhand and then in Andhra Pradesh; for the year 2017-18 maximum is in Madhya Pradesh and then in Odisha; for the year 2018-19 maximum is in West Bengal and then in Tamil Nadu. The maximum growth has been recorded in Jharkhand and then in West Bengal between 2012-13 and 2018-19.

Table 8: Relative change of the selected states based on College Population Index

	<b>CPI13</b>	<b>CPI14</b>	<b>CPI16</b>	<b>CPI17</b>	<b>CPI18</b>	<b>CPI18_12</b>
INDIA	102.38	101.94	103.37	100.00	100.00	105.65
ANDHRA PRADESH	95.37	104.85	100.00	102.63	98.72	195.00
GUJARAT	99.50	101.49	100.00	98.75	101.27	74.07
JHARKHAND	101.69	106.11	92.86	102.20	98.92	29.62
MADHYA PRADESH	106.00	101.42	119.40	100.00	106.25	81.60
ODISHA	104.76	100.45	107.89	98.78	102.47	84.29
TAMIL NADU	103.62	100.82	104.71	103.37	100.00	301.33
UTTAR PRADESH	104.02	99.61	103.67	92.04	99.04	73.53
WEST BENGAL	101.08	103.21	102.60	105.06	102.41	48.33

Source: AISHE portal/reports

Data for the College Population Index (number of colleges per 1 lakh population in the age group 18-23 years) shows that in terms of growth, for the year 2013-14 maximum change is in Madhya Pradesh and then in Odisha; for the year 2014-15 highest in Jharkhand and then in Andhra Pradesh; for the year 2016-17 highest is in Madhya Pradesh and then in Odisha; for the year 2017-18 maximum is in West Bengal and then in Tamil Nadu; for the year 2018-19 maximum is in Odisha and then in West Bengal. The maximum growth has been recorded in Tamil Nadu and then in Andhra Pradesh between 2012-13 and 2018-19.

Table 9: Relative change of the selected states based on Pupil Teacher Ratio

	<b>PTR13</b>	<b>PTR15</b>	<b>PTR16</b>	<b>PTR17</b>	<b>PTR18</b>
INDIA	101.94	103.37	100.00	100.00	102.17
ANDHRA PRADESH	104.85	100.00	102.63	98.72	101.30
GUJARAT	101.49	100.00	98.75	101.27	93.75
JHARKHAND	106.11	92.86	102.20	98.92	101.09
MADHYA PRADESH	101.42	119.40	100.00	106.25	107.06
ODISHA	100.45	107.89	98.78	102.47	98.80
TAMIL NADU	100.82	104.71	103.37	100.00	103.26
UTTAR PRADESH	99.61	103.67	92.04	99.04	100.00
WEST BENGAL	103.21	102.60	105.06	105.06	102.35

Source: AISHE portal/reports

The Pupil Teacher Ratio (number of student per teacher), in terms of growth, for the year 2013- 14 maximum change is in Jharkhand and then in Andhra Pradesh; for the year 2015-16 highest in Madhya Pradesh and then in Odisha; for the year 2016-17 highest is in West Bengal and then in Tamil Nadu; for the year 2017-18 maximum is in Madhya Pradesh and

then in Odisha; for the year 2018-19 maximum is in Madhya Pradesh and then in Tamil Nadu.

Table 10: Relative change of the selected states based on GER

STATE	GER13	GER14	GER15	GER16	GER17	GER18	GER18_12
INDIA	106.98	105.65	100.82	102.86	102.38	101.94	122.33
ANDHRA PRADESH	112.82	101.30	98.72	105.19	95.37	104.85	118.68
GUJARAT	106.56	102.56	106.50	97.58	99.50	101.49	111.48
JHARKHAND	108.26	117.56	100.65	114.19	101.69	106.11	157.85
MADHYA PRADESH	102.08	100.00	100.00	102.04	106.00	101.42	111.98
ODISHA	100.61	107.93	110.73	107.14	104.76	100.45	135.58
TAMIL NADU	102.38	105.12	98.01	105.87	103.62	100.82	116.67
UTTAR PRADESH	110.77	115.74	98.00	101.63	104.02	99.61	132.31
WEST BENGAL	107.95	106.75	101.72	104.52	101.08	103.21	127.81

Source: AISHE portal/reports

The Gross Enrolment Ratio (total enrolment in all HEs to the population of the State in the age group 18-23 years), in terms of growth, for the year 2013-14 maximum change is in Andhra Pradesh and then in Uttar Pradesh; for the year 2014-15 highest in Jharkhand and then in Uttar Pradesh; for the year 2015-16 highest is in Odisha and then in Gujarat; for the year 2017-18 maximum is in Odisha and then in Madhya Pradesh; for the year 2018-19 maximum is in Jharkhand and then in Andhra Pradesh. The maximum growth has been recorded in Jharkhand and then in Odisha between 2012-13 and 2018-19.

Table 11: Relative change of the selected states based on Gender Parity Index

STATE	GPI13	GPI14	GPI15	GPI16	GPI17	GPI18	GPI18_12
INDIA	103.37	100.00	100.00	102.17	103.19	103.09	112.36
ANDHRA PRADESH	100.00	102.63	98.72	101.30	100.00	103.85	106.58
GUJARAT	100.00	98.75	101.27	92.75	110.67	102.41	106.25
JHARKHAND	92.86	102.20	98.92	101.09	103.23	100.00	97.96
MADHYA PRADESH	119.40	100.00	106.25	107.06	103.30	103.19	144.78
ODISHA	107.89	98.78	102.47	98.80	103.66	96.47	107.89
TAMIL NADU	104.71	103.37	100.00	103.26	103.16	98.98	114.12
UTTAR PRADESH	103.67	92.04	99.04	100.00	102.91	107.55	104.59
WEST BENGAL	102.60	105.06	102.41	102.35	101.15	106.82	122.08

Source: AISHE portal/reports

The Gender Parity Index, in terms of growth, for the year 2013-14 maximum change is in Madhya Pradesh and then in Odisha; for the year 2014-15 highest in West Bengal and then in Tamil Nadu; for the year 2015-16 highest is in Madhya Pradesh and then in West Bengal; for

the year 2016-17 highest is in Madhya Pradesh and then in Tamil Nadu; for the year 2017-18 maximum is in Gujarat and then in Odisha; for the year 2018-19 maximum is in Uttar Pradesh and then in West Bengal. The maximum growth has been recorded in Madhya Pradesh and then in West Bengal between 2012-13 and 2018-19.

The growth in the enrolment have been tried to obtain from the data for the selected states. It has been observed that the relative growth in India is +0.634. It is negative for the states like Odisha, Madhya Pradesh and Jharkhand. The values are +0.134, +3.782, +0.304, -1.364, -0.292, -1.155, +0.069 and +0.694 for the states West Bengal, Uttar Pradesh, Tamil Nadu, Odisha, Madhya Pradesh, Jharkhand, Gujarat and Andhra Pradesh respectively. In each case R2 values are more than +0.95.

## **CONCLUSION**

Available data for the selected eight states have been analysed in terms of a number of variables with the common notion that the establishments are contributing for betterment of higher education enrolment, sustainability, effectiveness and employability. From the policy perspective though enrolment has been the age-old focus, contentious issues are widespread. This study has been an attempt to scrape the fascia. Most importantly, all the thoughtful pondering centering the issue of “quality” of education has been purposefully kept away. Minute reading of basic and fundamental information pave the way to thoughtful insight - let this simple exercise be a prelude to further discussions on “higher education in India”.



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