

Gross Enrolment Ratio in Higher Education: A District Level Analysis of the State of West Bengal

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Abstract - Gross Enrolment Ratio (GER) is the number of students enrolled in a given level of education, expressed as a percentage of the official age group of the population corresponding to the same level of education. In the state of West Bengal, GER in higher education for the age group 18 - 23 years is 18.7%, which is far below the national average of 25.8% for 2017-2018. There is a large variation in GER across different districts and among male and female. An effort has been made through this paper to study the spatio temporal variation in GER among the districts of West Bengal. To study the gender disparity in GER in the districts of West Bengal Gender Parity Index (GPI) is calculated. Among the districts of West Bengal, Kolkata has recorded highest GER in higher education in all the years and Uttar Dinajpur has recorded the lowest GER throughout the years (2012 to 2018). GPI in gross enrolment in greater than unity in 14 out of 19 districts of the state.

Keywords: Gross Enrolment Ratio, Gender Parity Index, Higher Education, Spatial and Temporal Variation

I. INTRODUCTION

The 'Gross Enrolment Ratio' is an education index developed by UNESCO. GER is the number of students enrolled in a given level of education, expressed as a percentage of the official age group of the population corresponding to the same level of education. GER in higher education is the number of students enrolled in graduation and post graduation courses regardless of their age, divided by the total population in the age group 18-23 years. Thus GER in higher education is a measure of access to higher education by the population belonging to the age group 18 to 23 years. A high GER generally indicates a high degree of participation, whether the pupils belong to the official age group or not (Ghara, Mishra and Singh, 2018) and vice versa. A GER value approaching 100% indicates that the entire population belonging to an official age group corresponding to a level of education has been accommodated.

GER in India is 25.8% calculated for the age group 18 -23 years for the year 2017-2018 (according to the report of All India Survey on Higher Education –AISHE, released by Ministry of Human Resource Development - MHRD of 2017-2018). According to the report, the GER for the male and female population is 26.3% and 25.4% respectively. The states of India with GER above national average are Jammu and Kashmir, Punjab, Haryana, Himachal Pradesh,

Uttarakhand, Sikkim, Manipur, Arunachal Pradesh, Uttar Pradesh, Maharashtra, Goa, Andhra Pradesh, Telengana, Karnataka, Kerala and Tamil Nadu. Among the Union Territories of India, Delhi, Chandigarh and Puducherry have recorded GER above national average. The states with GER lower than the national average are Assam, Meghalaya, Mizoram, Nagaland, Tripura, West Bengal, Bihar, Jharkand, Odisha, Madhya Pradesh, Chattisgarh, Rajasthan and Gujarat.

In the state of West Bengal (WB), GER in higher education for the age group 18 -23 years is 18.7% (estimated from AISHE, 2018-2019), which is far below the national average of 25.8% for 2017-2018. There is a large variation in GER across different districts and among male and female population. An effort has been made through this paper to study the spatio temporal variation in GER among the districts of West Bengal.

II. DATA AND METHODOLOGY

For the study, enrolment data in higher education is collected from AISHE (home page: <http://aishe.nic.in/aishe/home>) for the year 2012-2013 to 2018-2019 for the state of WB. GER in higher education for the year 2012 -2013 to 2018-2019 for male, female and total is calculated by the following formula:

GER (Higher Education) = Number of students enrolled in graduate courses and post graduate courses * 100 / No. of population in the age group 18 -23 years

To study the gender disparity in GER in the districts of West Bengal Gender Parity Index (GPI) is calculated. GPI is the ratio of male to female value of a given indicator. GPI in gross enrolment ratio in higher education is an index used to measure the access to higher education by girls in relation to boys. A GPI in higher education equal to unity means that parity has been achieved in gross enrolment in higher education. GPI less than unity means that gross enrolment in higher education is more for boys than for girls and GPI more than unity means that GER in higher education is more for girls than for boys. GPI is calculated by the following formula:

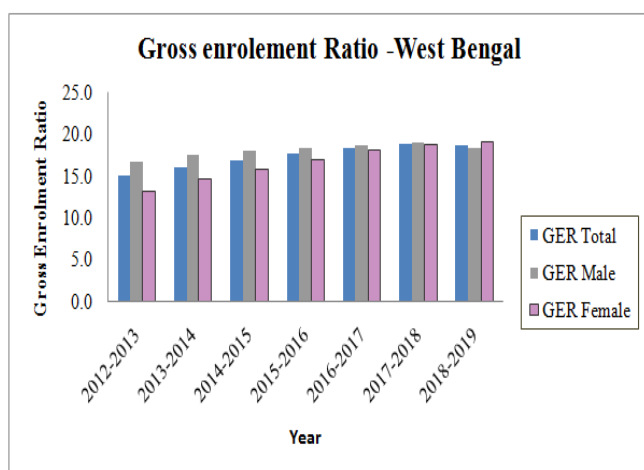
GPI (in GER in higher education) = GER for female in higher education/GER for male in higher education.

Age wise population data for the districts of West Bengal is collected from Census of India 2011. Population belonging to the age group 18 -23 years for the year 2011 is the sum of 18 – 23 years population directly obtained from the Census. Population in the age group of 18 – 23 years for the year 2012 is the sum of population belonging to age group 17 to 22 years in the Census year 2011. Similarly population for the age group 18 to 23 years for the year 2018 is the sum of population belonging to the age group of 11 to 16 years of the Census year 2011.

III. RESULTS AND DISCUSSION

Gross enrolment ratio in higher education in WB is 18.7%, calculated for the age group 18 – 23 years for the year 2018-2019. GER for male population is 18.3% and for females it is 19.1%. Scheduled Caste students constitute 17.9 % and Scheduled Tribe students constitute 3.2 % of total enrolment in WB in 2018-2019. During 2018-2019, 15 % of students belonged to Other Backward Classes, 11 % of students belonged to Muslim Minority and 0.6 % belonged to Other Minority Communities (Government of West Bengal, 2014).

GER has increased in the last five years from 15% in 2012-2013 to 18.7% in 2018-2019 (Figure 1). In comparison to male, female GER value is higher in WB. GER values vary considerably among districts of WB. Though the GER in higher education is below the national average, in the last five years GER has generally increased for almost all the districts of WB. According to the AISHE Report 2017-2018, there are 43 universities, 1341 colleges and 443 stand alone colleges in West Bengal. College per lakh population in the state is 12 (national average – 28) and average enrolment in college is 1170 (national average is 698). Pupil teacher ratio in institutes with regular mode is 33 (national average is 25).



Source: GER calculated from AISHE Reports and Census Reports
 Fig. 1 Gross Enrolment Ratio (Total, Male and Female) in West Bengal

For the district level analysis of GER and GPI, the state is divided into five subdivisions – Jalpaiguri subdivision comprising of Darjeeling, Jalpaiguri and Coochbehar districts; Maldah subdivision comprising Uttar Dinajpur, Dakshin Dinajpur, Maldah and Murshidabad districts; Bardhaman subdivision comprising Birbhum, Bardhaman and Hooghly districts; Medinipur subdivision comprising Purulia, Bankura, Medinipur East and Medinipur West districts and Presidency subdivision comprising Nadia, Kolkata, Howrah, North and South 24 Parganas districts (Fig.2A, 2B and 2C). There exist large regional variations in GER in higher education in WB. The analysis of fig.2A, 2B and 2C and fig.3 reveals the following:

1. Among the districts of WB, Kolkata has recorded highest GER in higher education in all the years. Since 2012, GER in higher education in Kolkata has increased considerably. Kolkata has recorded a 34% increase in GER in higher education from 2012-2013 to 2017-2018. However during 2018-2019 there has been a sharp drop in GER from 99% during 2017-2018 to 78% in 2018-2019.
2. Nadia, Darjeeling and North 24 Parganas districts occupy 2nd, 3rd and 4th positions respectively in GER in higher education in West Bengal.
3. Uttar Dinajpur has recorded the lowest GER throughout the years (2012 to 2018) in WB. In Uttar Dinajpur, GER in 2012-2013 was only 8% which rose to 9.9% in 2018-2019.
4. Other than Darjeeling district, all other districts in Jalpaiguri and Maldah subdivisions have recorded low GER ranging from 9.9% in Uttar Dinajpur to 15.6% in Dakshin Dinajpur (2018-2019).
5. Since 2015-2016, GER in higher education has declined for Darjeeling, Coochbehar, Jalpaiguri, Maldah and Murshidabad districts.
6. Birbhum, Bardhaman and Hooghly districts have recorded rise in GER ranging from 2% to 4% from 2012 to 2019.
7. Nadia has made good progress in GER since 2012 (34% rise from 2012 to 2019).
8. In Bankura, GER in higher education has gone up from a very low value of 11% (during 2012-2013) to 13 % during 2018-2019. Purulia has recorded 4% rise in GER in higher education since 2012 to 2019.
9. East and West Medinipur districts have recorded 2% and 5% rise in GER in higher education enrolment since 2012 – 2013 to 2018- 2019 respectively.
10. In Howrah and South 24 Parganas districts GER in higher education is less than 15%.
11. In North 24 Parganas district there has been 7% increase in GER since 2012 -2013 to 2018-2019.

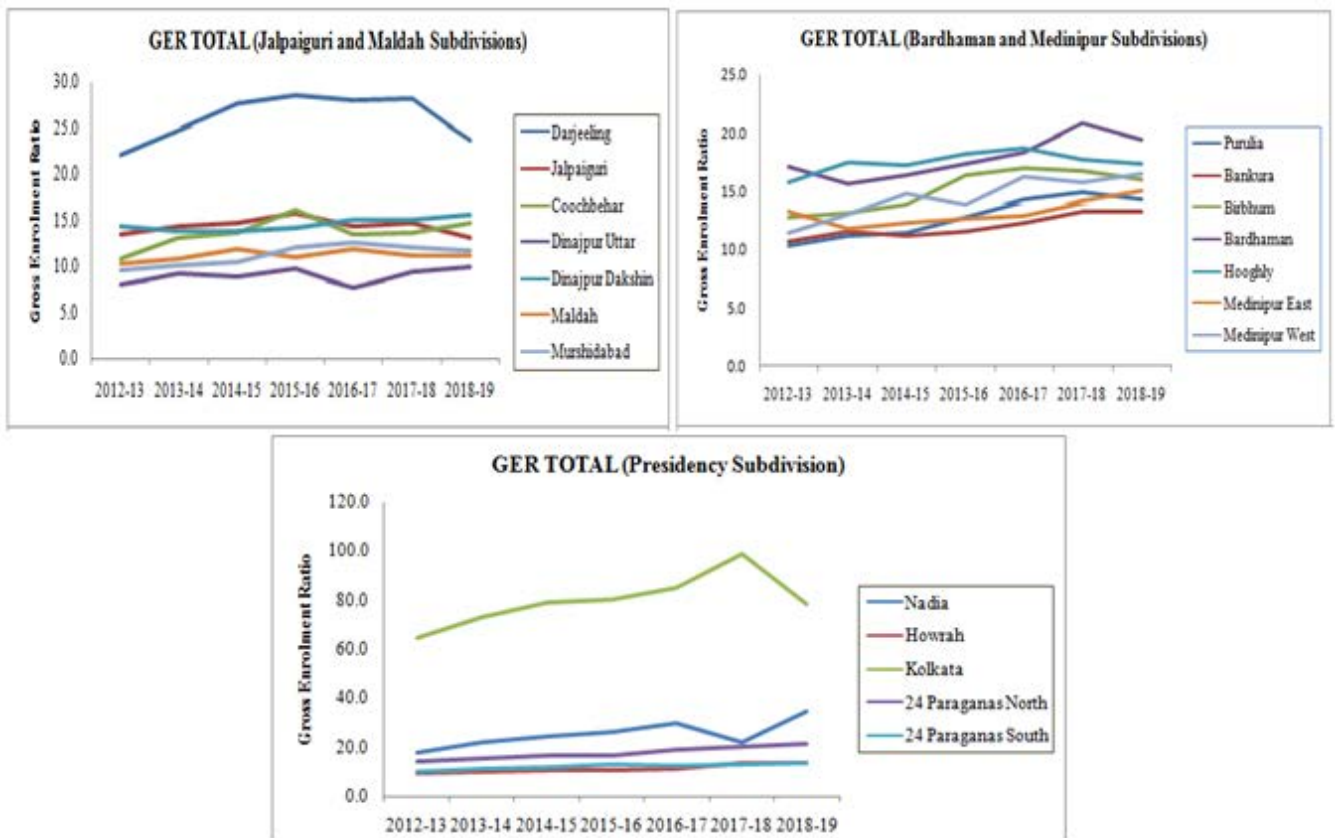


Fig. 2A Gross Enrolment Ratio (Total) in the Districts of West Bengal (2012 – 2019)

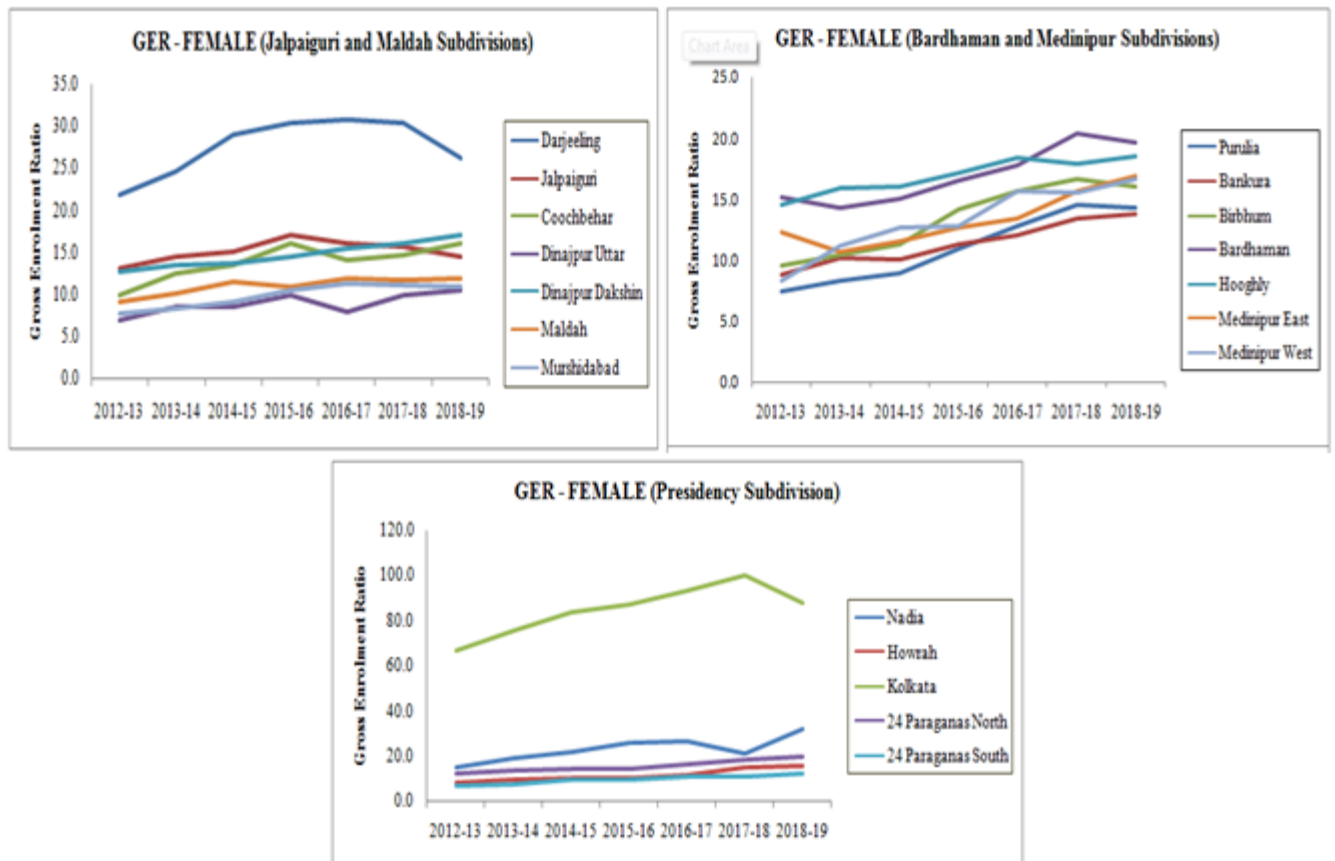
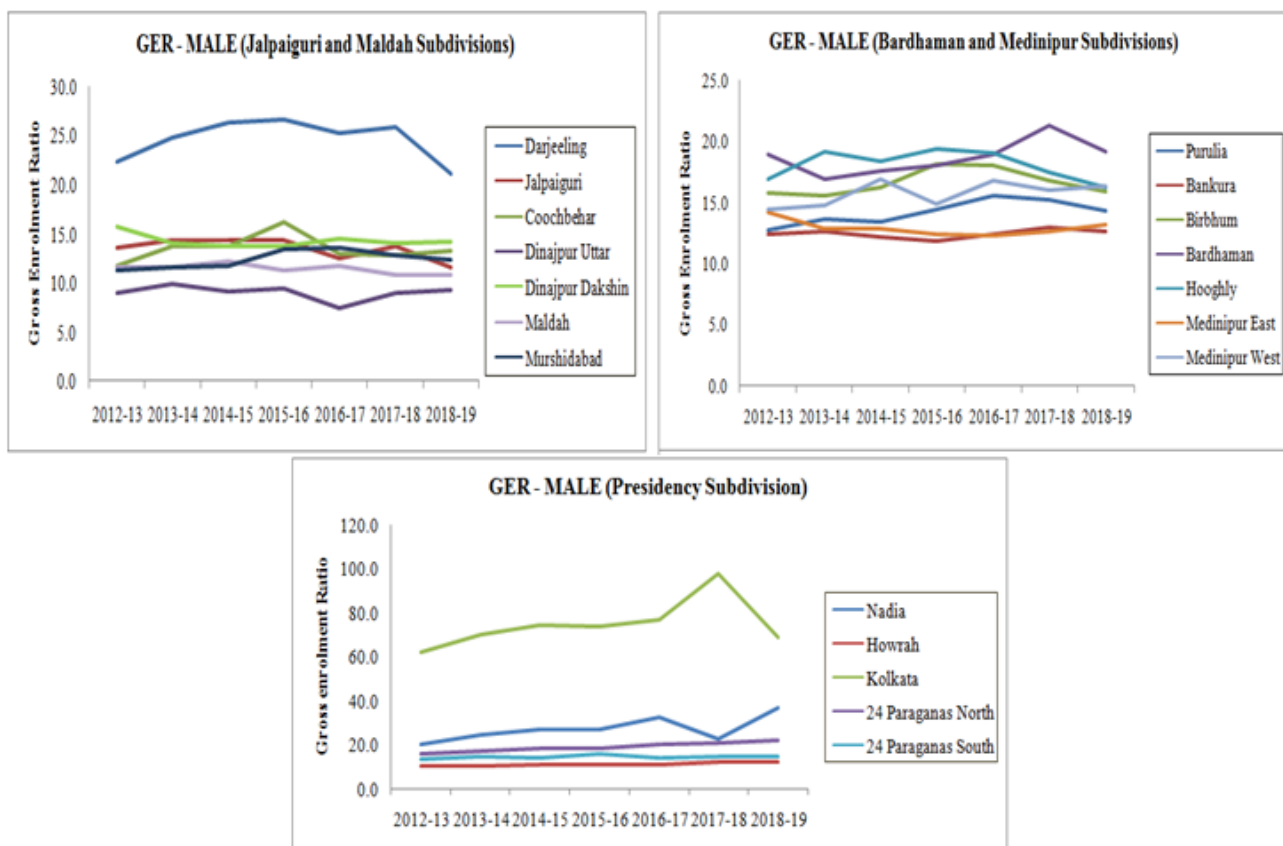
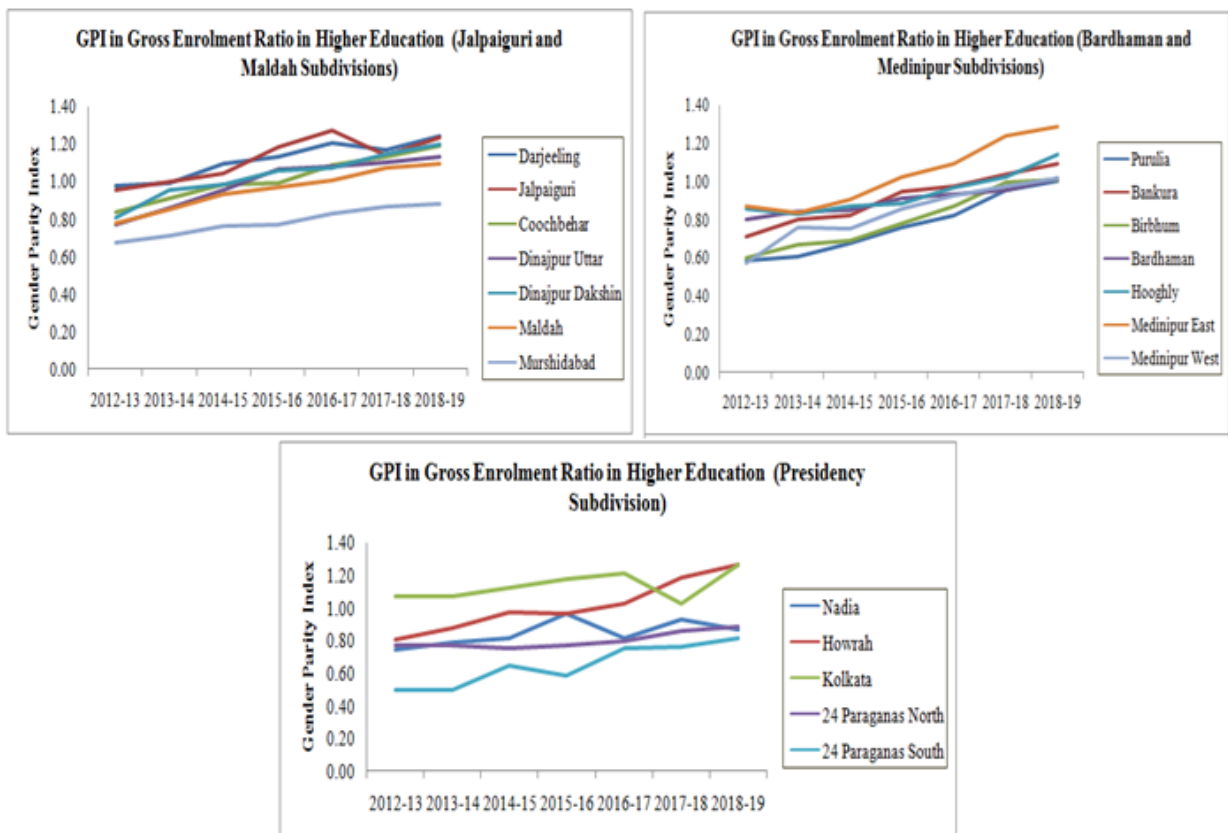


Fig. 2B Gross Enrolment Ratio (Female) in the Districts of West Bengal (2012 – 2019)



Source: GER calculated from AISHE Reports
 Fig. 2C Gross enrolment Ratio (Male) in the Districts of West Bengal (2012 – 2019)



Source: GPI calculated from GER data
 Fig. 3 GPI in Gross Enrolment Ratio in Higher Education

12. Female GER has increased for all the districts of WB since 2012-2013. The GPI in GER in higher education for the districts of WB is depicted in figure 3. In districts like Coochbehar, Maldah, Uttar Dinajpur, Bankura, Birbhum, Purulia, West Medinipur, Murshidabad and South 24 Parganas districts female GER for the year 2012-2013 were below 10%. Other than Uttar Dinajpur and Murshidabad, where female GER is still below 11%, in all other districts female GER is in the range of 12% to 17% in 2018-2019. In Kolkata female GER during 2017-2018 was 100%.
13. Male GER has declined for all most all districts of Jalpaiguri and Maldah subdivisions. Male GER has also declined in Birbhum and Hooghly since 2015 – 2016 and in Bardhaman male GER in higher education is declining since 2017-2018.
14. There has been a significant increase in GPI values over the years (figure 3). GPI in gross enrolment ratio in higher education in WB is 1.04 (2018-2019). Out of 19 districts, in 14 districts GPI is greater than unity. This indicates that female GER in higher education is higher compared to male GER in higher education in WB. This is mainly because of the introduction of Kanyasree Prakalpa (KP) by the Government of WB. KP is a conditional cash transfer scheme (Ghara & Roy, 2017) in which a financial aid is provided to girls aged 13-18 years to ensure that they stay in school and delay their marriages to at least the age of 18.

IV. CONCLUSION

In WB, there has been only 3.7% increase in GER in higher education since 2012-2013 to 2018-2019. Kolkata being the largest city in eastern India has always dominated the scene of education not only in WB but also in eastern India. In districts, like Jalpaiguri, Coochbehar, Uttar Dinajpur, Maldah, Murshidabad, Purulia, Bankura and Howrah, GER in higher education is still below 15%. The low levels of enrolment could be because of dominance of primary sector activity in these districts. GER in higher education in districts like Darjeeling, Jalpaiguri, Murshidabad, Birbhum, Bardhaman, Hooghly and Kolkata is falling.

The falling GER could be an indication of outmigration of students from the districts to other states in search of quality higher education. Lack of employment opportunity in the skilled sector could be another driving force behind low enrolment or falling enrolment in higher education in the state as a whole. Though female GER in higher education has increased for almost all the districts of WB, male GER has declined for Darjeeling, Coochbehar, Jalpaiguri, Dakshin Dinajpur, Maldah, Bankura, Hooghly and Kolkata.

The Kanyasree Prakalpa, which is a unique Conditional Cash Transfer scheme which targets adolescent girls aged 13-19 years and offers a two-tier scholarship introduced by the Government of WB in 2012 is the reason behind high female GER in higher education in the state. In almost all the northern districts male GER in higher education is declining. Because of high female enrolment in higher education, W.B. has made great progress in GPI in higher education enrolment.

The low levels of GER in WB could be due to the following reasons:

1. Poor infrastructure and less number of teachers in some institutions forcing students to migrate to other cities in pursuit of quality higher education;
2. Outdated and rigid curricula (Singh, 2017) which is not reflecting the requirement of dynamic market environment;
3. Inter district disparity in educational infrastructure;
4. Poor employment opportunity in skilled sector and
5. Low focus on research and research oriented jobs.

Quality and quantity is the reason behind low enrolment in higher education in the state of W.B. Higher education in West Bengal will have to incorporate courses aimed at improving skill development. Courses will also have to aim at improving communication skill among students. Curriculum and infrastructure have to be matched with national and global standards. The focus of the administration should not only be at creating new institutes but also to create employment opportunities so that more students are encouraged to take up higher education.

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