

## **Executive Summary**

# **Cost, Efficiency, Equity and Quality of Higher Education in West Bengal**

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The role of education in facilitating social and economic progress is well recognised. Higher education can play a very significant role in the development of societies – in terms of economic development and human development. In spite of huge quantitative expansion of higher education in India in the post-independence period, the GER of India is still not satisfactory. The 12<sup>th</sup> Plan Document of GOI has fixed target 30% GER by 2020-21. Looking at the state level, as per the report of All India Survey on Higher Education (AISHE), Gross Enrolment Ratio (GER) in higher education in India was 25.8% in 2017-18, whereas the GER for West Bengal was 18.5%. It need not mention that the province of Bengal, undivided till 1947, and then the state of West Bengal, had played a leading role in the country in spreading education at all levels, beginning with mass education and culminating in higher, professional and specialised education. However, West Bengal presently lags behind many other states of India in terms of different parameters of higher education.

In this backdrop, the present research project entitled “Cost, Efficiency, Equity and Quality of Higher Education in West Bengal” attempts to assess the different dimensions of higher education in West Bengal like - the public expenditure pattern on higher education, different disparities and inequalities in higher education, the efficiency of higher education institutions, the quality of higher education, household expenditure on higher education.

The data for the analysis has been collected from both the primary survey and secondary sources. The secondary data have been collected from various sources like (i) Public expenditure data on higher education has been collected from reports of budget documents of Government of India and Government of West Bengal. (ii) The data for the quality of higher education institutes have been collected from the reports NAAC reports NIRF, (iii) The data for household expenditure data has been collected from NSSO (71<sup>st</sup> Round). (iv) The data for the equity analysis has been collected from Various reports like - All India Survey of Higher Education (AISHE), Annual Reports of the Department of Higher Education (Government of West Bengal), Websites of different universities and colleges, Economic Review (Government of West Bengal), Annual Reports of UGC, District Statistical Handbooks (Government of West Bengal) etc.

We have conducted primary survey on total of 3,135 students from various colleges under different universities and also Vidyasagar University for the relevant data on cost, equity and

quality of higher education in West Bengal. Out of these surveyed students, category-wise distribution are: Male:1,242, Female:1,893; UG: 2491, PG: 644; General:2712, Professional: 423. The students surveyed belonged four districts namely Paschim Medinipur, Purba Medinipur, Purulia and Kolkata.

We have used methodologies according to our objectives. The detailed causal analysis on the relationship between SDP and expenditure on higher education for West Bengal has been done using time series analysis. Equity issues have been analysed in terms of different indicators by regions and social categories like institutional density in states and districts, Gross Enrolment Ratio (GER), Gender Parity Index (GPI), average number of students per institution, diversity of subjects objects offered for study etc. Data Envelopment Analysis (DEA) has been used for judging the efficiency of selected 42 colleges under Vidyasagar University and 11 Universities in West Bengal. The ordered logit regression model has been used to find the determinants of NAAC grades obtained by colleges in West Bengal. Six sigma tools and Principal Component Analysis (PCA) have been used to identify the basic problems of higher education institutions as perceived by the students studying in various colleges in West Bengal. Regression analysis has been used to find the determinants of GER and also to find the determinants of household expenditure on higher education.

The regression results reveal that the elasticity of higher education expenditure with respect to State Domestic Product (SDP) in West Bengal is 1.05. The empirical result from Granger causality test confirmed that there is uni-directional causality running from higher education to economic growth. Out of 42 colleges under Vidyasagar University, 11 colleges are of highest efficiency scores with value 1. In 2016-17, West Bengal had share of 3.3 % of colleges in India and 6.1% enrolment with respect to India. West Bengal had share of 2.6% private colleges and 3.2% private college enrolment of India in 2016-17. During the period 2010-11 to 2016-17, the Gender Parity Index (GPI) for India had increased from 0.86 to 0.94, whereas during the same period GPI in West Bengal had improved from 0.79 to 0.87. The ranks of West Bengal out of 36 states and UTs for some indicators of higher education in 2016-17 were as follows: Number of colleges per lakh population: 32, GER (Total):28, GER (Female):27, Pupil Teacher Ratio (PTR): 32, Public Expenditure on higher education per person (18-23 Yrs) (Out of 28 states):19, Vocational Expenditure per student (out of 28 states): 19. Out of 154 colleges assessed by NAAC in West Bengal, percentage of 'A' grade colleges was found 12.3%, whereas that for India it is 24.4%.

Regression results reveal that the significant factors affecting the NAAC grade of the selected colleges in West Bengal are number of cycle of the NAAC assessment and support staff of

the college. Applying six sigma analyses, it has been possible to identify the problems of the selected higher education institutions in West Bengal. We find the basic problems of higher education institutions as perceived by the students are: insufficiency of permanent teachers, lack facilities like canteen, common room and toilet, lack of teaching and evaluation methods like practical classes in the laboratory, quality of lectures and the extra coaching by the department. Principal Component Analysis (PCA) results indicate that the most important components of students' perception about the quality of higher education is related to the teaching quality, infrastructure facilities in the institutes and academic discipline in the college.

The primary survey results reveal that average annual household expenditure on higher education is Rs. 56,348 with different categories as follows: Rural: Rs. 24,634, Urban: 72,227; Male: Rs. 72,604 and Female: Rs. 45,682; General Course: Rs. 34,844 and Professional: Rs. 1,94,212. Major share of household expenditure on higher education goes private tuition expenditure and institutional fees. It has been found that the percentage of students taking private tuition is 95% in General courses and 43% in Professional courses. The regression results of primary data reveal that significant determinants of household expenditure are household economic condition, educational level of the head of the household, gender of the student, course or subject chosen, Private tuition, College to home distance, Performance at 10+2/UG level etc.

Some recommendations for the improvement of higher education in the state of West Bengal are: higher share of government budget expenditure on higher education, increase of plan expenditure in proportion to non-plan expenditure, establishment of more number of higher education institutes, introduction of new subjects and departments in colleges and universities, more full time teachers, more infrastructural facilities (like classrooms, ICT facilities, canteen, toilets etc.) in institutes, mobilisation of own resources of the higher education institutes, introduction of more vocational and professional courses in colleges, gender parity in enrolment of students and employment of teachers and non teaching, ensuring minimum attendance of students, use of ICT facilities and integration of online courses with the syllabus, ensuring academic discipline in the college, providing transport facilities in colleges in rural areas, more NCC and NSS units in colleges, greening of campus, ensuring regularity of classes, providing modules and course materials to students, additional coaching for weak students, training and placement cell in the institutes for campus recruitment, regular internal assessment of students, assessment of teachers by students etc.