

# AN EMPIRICAL ANALYSIS OF SECONDARY SCHOOL ENROLLMENT ACROSS THE INDIAN STATES

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## ABSTRACT

*India records enrollment rates of 95% in primary schools but only 62.5% enrollment in secondary schools (PRS Legislative Research, 2019). The existing literature mainly focuses on differences in public/private schools and urban/rural areas, however, there are few studies exploring the differences across the states (ASER, 2015). To study the factors affecting secondary school enrollment in India and their differences across the state, two tests were conducted. The first test, a multi-variate regression study in all the states, found that attendance seems to have a strong relationship with secondary school enrollment. The second test, which analyzed the differences in the means, found that both attendance and proportion of qualified teachers seemed to have the largest effect on enrollment. The paper concludes with calling for prioritization of policies on improving attendance and proportion of qualified teachers in schools.*

**KEYWORDS:** Secondary schools, Gross Enrollment Ratio (GER), Net Attendance Ratio (NAR), Quantitative analysis, Teacher qualifications, National Education Policy

## INTRODUCTION

While the Gross Enrollment Ratio (GER) in primary schools in India is recorded at 95%, the ratio falls to 62.5% in secondary schools (PRS Legislative Research, 2019). Over 47 million youths drop out of schools before they reach the age of 16 (Grocchetti & Moloney, 2016). There is widespread literature showing a strong relationship between attendance and enrollment (Lamdin, 1996). Most existing literature on Indian education has tried to understand this relationship by studying differences between private and public schools or through studies of rural and urban areas (ASER, 2015). Even though most schools adapt their own separate state curriculums, there is limited research on studying the differences across the states. This study aims to understand the relationship between attendance and secondary school enrollment in India by studying the differences across the Indian states.

## METHOD

There were two tests conducted to study the relationship between attendance and secondary school enrollment.

In the first test, I tried to estimate the impact of Net Attendance Ratio (NAR) on GER in secondary schools by

doing a cross-sectional, multi-variate regression study across all 29 states and the capital city, New Delhi. Along with the NAR, six other factors that were likely to impact enrollment were considered. Census studies report learning crisis, infrastructure and socio-economic status as the primary reasons behind students dropping out of schools (Ministry of Human Resource Development, 2019). Therefore, the other six variables included were GER in primary schools, proportion of qualified teachers in schools, teacher availability, proportion of schools with pupil-teacher ratio less than 30, state's expenditure on schools, and Net State Domestic Product (NSDP) per capita.

For the second test, I tried to study the differences across the states by analyzing the variance in their means. This test was useful in indicating the relationship between secondary school enrollment levels and our seven variables, including the NAR.

## RESULT

The results of our first test were quite intuitive. All our seven factors had a positive relationship with secondary school enrollment with Net Attendance Ratio being statistically significant.

However, the results of our second test that measured where there is a focus on improving attendance and increasing

**Coefficients:**

	Estimate	Std. Error	t value	Pr(> t )
(Intercept)	-1.473e+02	3.851e+01	-3.824	0.00115 **
GER_P	2.163e-01	1.415e-01	1.529	0.14285
NAR	1.786e+00	4.761e-01	3.750	0.00136 **
qualified_teachers	1.345e-01	1.193e-01	1.127	0.27374
teacher_vacancy	3.076e+01	2.498e+01	1.231	0.23322
class_size	1.250e-01	1.464e-01	0.854	0.40371
expenditure	1.795e-01	9.472e-02	1.895	0.07337 .
NSDP	2.382e-05	3.729e-05	0.639	0.53061

the differences across the states were a little surprising. While the strong relationship of the enrollment ratio with the attendance was expected, enrollment in primary schools and proportion of qualified teachers also seemed to have a significant relationship with secondary school enrollment.

Primary school enrollment can be explained through its direct relationship with secondary school enrollment. However, proportion of qualified teachers emerged as an

the proportion of qualified teachers.

**CONCLUSION**

The high dropouts in secondary schools in India is a dire concern. Studying the differences in secondary school enrollment across the Indian states, this study finds that both attendance and proportion of qualified teachers in schools seem to have a strong relationship with secondary school enrollment. The government’s education policies should increase focus in

	Df	Sum Sq	Mean Sq	F value	Pr(>F)
GER_P	1	219.3	219.3	4.678	0.04352 *
NAR	1	1930.4	1930.4	41.169	3.75e-06 ***
qualified_teachers	1	480.7	480.7	10.253	0.00469 **
teacher_vacancy	1	6.2	6.2	0.133	0.71975
class_size	1	68.6	68.6	1.462	0.24144
expenditure	1	149.9	149.9	3.197	0.08974 .
NSDP	1	19.1	19.1	0.408	0.53061
Residuals	19	890.9	46.9		

interesting finding.

**DISCUSSION**

Net Attendance Ratio (NAR) has a strong positive relationship with Gross Enrollment Ratio (GER) in secondary schools in India. Analyzing the differences across the states, attendance remains to be an important factor for enrollment. Further, with increasing number of proportion of qualified teachers in classrooms, enrollment in secondary schools seems to increase across the states.

The government’s new 2019 National Education Policy is extensive, however, the government has limited capacity (Ministry of Human Resource and Development, 2019). There needs to be prioritization in the education sector,

these two areas to see improvement in secondary school enrollment in India.

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