

URBAN RURAL DISPARITY IN EDUCATION IN INDIA

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Abstract

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In this modern era, India is growing and developing day by day and achieving various milestones but the growth has been uneven; the rich are getting richer and poor are getting poorer (Kelley. B, 2015). Education being the basic foundation for any economy to grow and should be at the heart of policy making of the government. It is this education that may act as a bridging gap for urban rural disparity which is a major milestone that India is yet to achieve. Closing the gap in education is the most effective way to reduce urban rural disparity as well as uneven distribution of income between rich and poor in India (Malaeb, K. S. 2016). Education standards between rural and urban areas are affected by various other factors like population, infant mortality rates, life expectancy, below poverty line. This study tries to assess factors that affect the level of education in both rural and urban areas and tries to put forward the policy measures on how this disparity can be reduced such that urban and rural equality may be achieved by raising the level of education.

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1. Introduction

India is the fastest growing developing economy in the world but is India growing evenly or just the rich are getting richer and poor are getting poorer day by day (Kelley. B, 2015). Income inequality is a major concern in India. Urban rural disparity is an underlying cause of income inequality. If urban rural disparity is reduced then unequal distribution of income between rich and poor will also reduce to an extent that would lead India to an overall even growth and development (Malaeb, K. S. 2016) Urban rural disparity can reduce with the power of education. Education is the most important element to measure the growth of an economy (UNDP, 1991). Education not just adds to improve the human capital of the society but also additionally give a civilized society (as economic agents are engaged in production, supplying labor, consuming good and services and participates in political decision making) and henceforth makes impacts and improves the welfare of the society more importantly in a sustained manner (Thomas, et al., 2001). It is the fundamental right of each individual of society to get equivalent access to training.

In this study, role of education in both rural and urban areas is assessed. The parameter for evaluating level of education in rural and urban areas used is expected years of schooling (Fatima, N. S. 2015). Educations in both rural and urban areas are affected by other factors like population (Calì. M, 2008), infant mortality rates (Saikia, N. 2013), life expectancy (Gopal, 2014), below poverty line (Mohamed, 1998) which are chosen in the study to measure urban rural disparity in education in India. The actual data has been normalized as the dataset had different units of measurement. The purpose of this study is to see the urban rural disparity in education by identifying factors that influence expected years of schooling in urban and rural areas of India.

Therefore in this study the objectives set are (a) To see the existence of urban rural disparity in education India. (b) To identify and study the factors that influence expected years of schooling in urban and rural areas of India. (c) To identify and study the differences in education in urban and rural areas of India. Having set the key objectives, subsequent puts forward the key factors affecting urban rural disparity in education in India. Then chapter 3 puts forward the analysis of

key factors influencing urban rural disparity and finally chapter 4 concludes the study and puts forward the policy implications for reducing urban rural disparity in education across India.

2. KEY FACTORS AFFECTING URBAN RURAL DISPARITY IN EDUCATION IN INDIA

Urban rural disparity in education is a serious problem faced by developing economy like India. The need of the hour for the state is to reduce this urban rural disparity in education to create better opportunities for growth in Indian economy. Therefore the study tries to identify ways in which education standards in both urban and rural areas can be increased in the same direction such that the difference between the growth levels in both sectors can be merged.

As per the discussion, education being the basic foundation for any economy to grow and should be at the heart of policy making of the government. It is this education that may act as a bridging gap for urban rural disparity which is a major milestone that India is yet to achieve. Closing the gap in education is the most effective way to reduce urban rural disparity as well as uneven distribution of income between rich and poor in India (Malaeb, K. S. 2016).

The parameter for assess the level of education standards in both urban and rural areas used in this study is expected years of schooling (Fatima, N. S. 2015). Expected years of schooling are defined as “Number of years of schooling that a child of school entrance age can expect to receive if prevailing patterns of age-specific enrolment rates persist throughout the child’s life.” (UNESCO Institute for Statistics, 2013). It can be seen from the existing literature that absolute dispersion of distribution of education is measured by standard deviation of expected years of schooling (Fatima, N. S. 2015). Expected years of schooling is good determinant for measuring urban rural disparity as schooling is the essence of education irrespective whether a country is developed or developing. To relate urban rural disparity with education, expected years of schooling is necessary factor as education in schooling are the stepping stones to enhance the human capital. (Thomas, et al., 2001).

The expected years of schooling symbolic of level of educational standards in urban and rural areas are affected by various factors like population, infant mortality rates, life expectancy,

below poverty line, secondary net attendance ratio, secondary drop-out rate, average number of teachers per school etc.

However the literature shows the key parameters that have a direct impact of urban rural disparity in education are population, infant mortality rates, and life expectancy, below poverty line.

Population is expressed by the total number of citizens living in India. The growth rate of cities' population captures the extent of urban areas success more precisely than income growth. The share of the population in working age in urban areas is positively associated with rural-urban difference and rural areas are negatively associated with rural-urban difference. The opposite is true for the share of population over 60 (Calì. M, 2008).

Infant mortality is the rate used as an important factor to indicate the educational and health status of a country and is defined as the deaths of infants which are under one year in a given period of time per 1,000 live births in the same period of time (Deb .S ,2018). Relative inequality between rural and urban India has increased over time. Difference between urban and rural India has enlarged and expanded over the period of time to a great extent. One of the most important part of the rural disadvantage in infant mortality rates are due to the major underlying problem of maternal education and family wealth, whereas information of breastfeeding and oral rehydration methods have contributed in decreasing the gap. The share of women using modern contraceptive methods and the percentage of fully vaccinated children in the community has also contributed to widening the urban rural gap in infant mortality. (Saikia, N. 2013).

Life expectancy is can be explained as the applied statistical method of the mean time any organism is predicted to live, on the basic of the year of its birth. Causes of death is an important factor influencing increasing urban rural inequality the most and lower expectancy of life in rural areas include more health and metal problem like cardiovascular disease, unintentional injuries, carcinoma, stroke, suicide and polygenic disease (Gopal, 2014).

Below poverty line is defined as an imaginary line created by the government to indicate economic disadvantage and to identify individuals in need of government assistance and aid. The dissociation of a homogenous behavior from the particular effects of the clusters, to spot potential variations at the extent of standards of living between the households of various clusters. Education is the means of reduce poverty (Mohamed, 1998).

Having identified the key parameters for both dependent and independent variables we study. The subsequent chapter now dwells into quantifying the relationship between these parameters such that putting forward a model for rural urban inequality in education for the Indian economy.

3. ANALYSIS OF KEY FACTORS INFLUENCING URBAN RURAL DISPARITY IN EDUCATION IN INDIA

For measuring urban rural disparity as explained in the previous chapter expected years of schooling is taken as the dependent variable and population, infant mortality rates, life expectancy and below poverty line are identified as independent variable for determining urban rural disparity. This gives us the multiple linear regression line as:

$$(Y)_{U/R} = \beta_0 + \beta_1 X_{U1/R1} + \beta_2 X_{U2/R2} + \beta_3 X_{U3/R3} + \beta_4 X_{U4/R4} + U_i$$

Where

Y U = Expected years of education in urban areas

Y R = Expected years of education in rural areas

X U1 = population of urban areas

X R1 = population of rural areas

X U2 = infant mortality rates of urban areas

X R2 = infant mortality rates of rural areas

X U3 = life expectancy of urban areas

X R3 = life expectancy of rural areas

XU4 = below poverty line of urban areas

XR4 = below poverty line of rural areas

For the study's objective the hypotheses set are:

H1: There is no significant relationship between population and expected years of schooling in urban and rural areas of India.

H2: There is no significant relationship between infant mortality rates and expected years of schooling in urban and rural areas of India.

H3: There is no significant relationship between life expectancy and expected years of schooling in urban and rural areas of India.

H4: There is no significant relationship between below poverty line and expected years of schooling in urban and rural areas of India.

The actual data has been normalized and checked for stationarity. Multiple linear regression analysis is run.

Urban India

MULTIPLE LINEAR REGRESSION ANALYSIS

The study is detailed as under:

Summary output

Regression Statistics

Multiple R 0.94431651

R Square 0.89173367

Adjusted R Square 0.85842095

Standard Error 0.35444723

Observations 18

ANOVA

| Df | SS | MS | F | Significance F |
|----|----|----|---|----------------|
|----|----|----|---|----------------|

| | | | | | |
|------------|----|-------------|-------------|-----------|---------|
| Regression | 4 | 13.45204311 | 3.363010777 | 26.768565 | 3.6E-06 |
| Residual | 13 | 1.633226865 | 0.125632836 | | |
| Total | 17 | 15.08526997 | | | |

| | Coefficients | Standardt | Stat | P-value | Lower 95% | Upper 95% | Lower 95.0% | Upper 95.0% |
|--------------|--------------|-----------|--------|---------|-----------|-----------|-------------|-------------|
| Intercept | 3.822 | 0.966 | 3.959 | 0.002 | 1.7362 | 5.9080 | 1.7362 | 5.9080 |
| X Variable 1 | 0.569 | 0.154 | 3.699 | 0.003 | 0.2368 | 0.9018 | 0.2368 | 0.9018 |
| X Variable 2 | -0.468 | 0.162 | -2.891 | 0.013 | -0.8172 | -0.1182 | -0.8172 | -0.1182 |
| X Variable 3 | 0.272 | 0.131 | 2.079 | 0.048 | -0.0106 | 0.5547 | -0.0106 | 0.5547 |
| X Variable 4 | -0.537 | 0.234 | -2.290 | 0.039 | -1.0430 | -0.0303 | -1.0430 | -0.0303 |

Source – Secondary data collected and compiled

From the table, the p value of the population ($p=0.003$) is less than the significance level 5%. Thus, we reject the null hypothesis H_1 and conclude that there exist a positive relationship between population and expected years of schooling.

Similarly, p value of infant mortality rates ($p=0.013$), life expectancy ($p=0.048$) and below poverty line ($p=0.039$) is less than the alpha value of 0.05. Thus, we can reject null hypothesis H_2 , H_3 & H_4 and conclude that both infant mortality rates and below poverty line is negatively related to expected years of schooling and life expectancy is positively related to expected years of schooling.

MODEL 1

So, the multiple regression equation formed for urban India is:-

Expected years of schooling = 3.822 + 0.569 (population) -0.468 (infant mortality rates) +0.272 (life expectancy) - 0.537 (below poverty line)

The analysis suggests that if there is a 1% increase in infant mortality rates and below poverty line, there will be a 0.468 and 0.537 decrease in expected years of schooling respectively. With 1% increase in population and life expectancy, there will be 0.569 and 0.272 increase in expected years of schooling respectively.

Rural India

MULTIPLE LINEAR REGRESSION ANALYSIS

The study is detailed as under:

Summary output

Regression Statistics

Multiple R 0.93780131
 R Square 0.819560745
 Adjusted R Square 0.794255902
 Standard Error 0.297533203
 Observations 18

ANOVA

| | df | SS | MS | F | Significance F |
|------------|----|-----------|---------|----------|----------------|
| Regression | 4 | 28.029813 | 7.00745 | 736.6399 | 3.557E-15 |
| Residual | 13 | 0.1236654 | 0.00951 | | |
| Total | 17 | 28.153478 | | | |

| Coefficients | Standardt | Stat | P-value | Lower 95% | Upper 95% | Lower 95.0% | Upper 95.0% | |
|--------------|-----------|-------|---------|-----------|-----------|-------------|-------------|-----------|
| Intercept | 2.521 | 1.217 | -2.071 | 0.049 | -5.150264 | 0.108341 | -5.15026 | 0.1083406 |

| | | | | | | | |
|--------------|-----------|-------|--------|-------|-----------|------------------|-----------------|
| X Variable 1 | 0.463 | 0.173 | 2.684 | 0.019 | 0.0903167 | 0.83599 | 0.090317 |
| | 0.8359905 | | | | | | |
| X Variable 2 | -0.416 | 0.199 | 2.085 | 0.045 | -0.015108 | 0.846325 | -0.01510.846324 |
| X Variable 3 | 1.123 | 0.310 | 3.617 | 0.003 | -0.015108 | 1.7933250.452215 | 1.7933248 |
| X Variable 4 | -0.137 | 0.069 | -1.970 | 0.047 | -0.286604 | 0.013193 | -0.286 0.013193 |

Source – Secondary data collected and compiled

From the table, the p value of the population ($p=0.019$) is less than the significance level 5%. Thus, we reject the null hypothesis H1 and conclude that there exist a positive relationship between population and expected years of schooling.

Similarly, p value of infant mortality rates ($p=0.045$), life expectancy ($p=0.003$) and below poverty line ($p=0.047$) is less than the alpha value of 0.05. Thus, we can reject null hypothesis H2, H3 & H4 and conclude that both infant mortality rates and below poverty line is negatively related to expected years of schooling and life expectancy is positively related to expected years of schooling.

MODEL 2

So, the multiple regression equation formed for rural India is:-

Expected years of schooling = $2.521 + 0.463$ (population) -0.416 (infant mortality rates) $+1.123$ (life expectancy) -0.137 (below poverty line)

The analysis suggests that if there is a 1% increase in infant mortality rates and below poverty line, there will be a 0.416 and 0.137 decrease in expected years of schooling respectively. With 1% increase in population and life expectancy, there will be 0.463 and 1.123 increase in expected years of schooling respectively.

The expected years of schooling in urban areas is mainly determined by the population growth rate. However expected years of schooling in rural areas are mainly determined by life

expectancy. The problem lies ahead of the state is how to draft a policy measure which is conclusive for rural and urban area simultaneously.

4. CONCLUSION AND POLICY IMPLICATIONS

This study shows the urban rural disparity in education by identifying factors that influence expected years of schooling in urban and rural areas of India. Education being the basic foundation for any economy to grow and should be at the heart of policy making of the government. It is this education that may act as a bridging gap for urban rural disparity which is a major milestone that India is yet to achieve. Closing the gap in education is the most effective way to reduce urban rural disparity as well as uneven distribution of income between rich and poor in India (Malaeb, K. S. 2016). In this study, role of education in both rural and urban areas is assessed. The parameter for evaluating level of education in rural and urban areas used is expected years of schooling (Fatima, N. S. 2015). Educations in both rural and urban areas are affected by other factors like population (Calì, M, 2008), infant mortality rates (Saikia, N. 2013), life expectancy (Gopal, 2014), below poverty line (Mohamed, 1998) which are chosen in the study to measure urban rural disparity in education in India. The actual data has been normalized as the dataset had different units of measurement.

Empirical findings set forth that all the factors that were included do influence expected years of schooling in urban and rural areas of India. In this scope, on testing the factors affecting expected years of schooling, it was also found that infant mortality rates and below poverty line are negatively related to expected years of schooling and population and life expectancy are positively related to expected years of schooling. When the factors affecting expected years of schooling (i.e. population, infant mortality rates, life expectancy, below poverty line) in urban as well as rural areas were analysed separately, the study finds that lower standards of education in rural areas are due to poor life expectancy and comparatively higher standards of education in urban areas are due to population growth rate. This concludes that there is a lot of urban rural disparity in education in India which India has to reduce so that unequal distribution of income between rich and poor also reduce to an extent that India leads to overall even growth and development.

The government in respect to population should encourage migrant workers to take the capital, skills, and experience they've acquired in urban areas back to underdeveloped rural areas and engage in entrepreneurship. This can be achieved by reducing "barriers to returning to rural areas" by providing training to returning migrants and reducing administrative fees for starting a business and by providing financial support for qualified enterprises and individuals via subsidized loans and expanding credit availability in rural areas (Davidson, L. 2015)

The government needs to formulate policies to reduce disparity in several different aspects of developmental inputs like education, roads in rural areas, health labor force participation and special poverty alleviation Programme. (Hassan, 2016)

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