

**AN ECONOMIC ANALYSIS OF THE DETERMINANTS OF SCHOOL ENROLMENT AND DROP-OUTS IN
KARNATAKA**

Dr. Yogesh H S

Project Fellow,

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DOS in Economics and Co-operation,

University of Mysuru, Manasagangothri, Mysuru,

Dr. M Mahesha

Associate Professor,

DOS in Economics and Co-operation,

University of Mysuru, Manasagangothri,

Mysuru, Cell:9480438399,

Abstract

Elementary school education generally gives students the confidence that they can improve their lives. Apart from that education has long been identified as one of the most important determinant of economic growth. The major socio-economic factors influencing school participation of certain groups have been identified as income, poverty, gender, caste, tribe and religion. Hence, in this paper an attempt has been made to analyze the status of enrolment and drop-outs across the states in India briefly and also tries to examine the various determinants of the enrolment and drop-outs in Karnataka. The paper has been used Multiple regression model to analyze the determinants of school enrolment and drop-outs by using cross sectional data of Census 2011. It has been concluded that, the social-economic factors are positively more influencing on the enrolment and drop-outs of the primary as well as elementary education in Karnataka.

Key Words: Class, Determinants, Drop-outs, Education, Elementary, Enrolment, School.

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1. Introduction

. Elementary school education generally gives students the confidence that they can improve their lives. It also has the potential to make them aware of the difficulties and obstacles that may hinder their paths. Apart from that education has long been identified as one of the most important determinant of economic growth. It is considered to be both an indicator and instrument of economic development. Education increases labour productivity and thereby helps a nation to have a strong economic growth. It is an instrument in rising earning and reducing poverty. The Kothari Commission (1964) has beautifully said “The destiny of India is now being shaped in her classrooms. This we believe is no mere rhetoric. In a world based on science and technology it is education that determines the level of prosperity, welfare and security of people. On the quality and number of persons coming out of our schools will depend on our success in the great enterprise of national construction whose principal objective is to raise the standard of living of our people”. In terms of social returns, schooling helps to improve perception, attitudes and behavior which generates awareness and builds personality in such a way as to promote the development and welfare of a country and its people. However, India’s progress in providing access to education to its children and youth is remarkable for the last decade especially after Sarva Shiksha Abhiyan. Enrolment of the child in school is to be followed by retention so that child can get to learn something. Even though many of the Government programmes like Sarva Shiksha Abhiyan, KGBV, Mid Day Meal, Distribution of Bicycles for girls and boys children etc; have played a significant role to bring the children into school but still a major portion of the enrolled children are found to be leaving the school before they complete their primary schooling and Some those haven’t ready to go school due to various socio-economic reasons.

Further, education has long been identified as one of the most important determinant of economic growth. Many of the studies have stated that, the socio-economic factors are determine the level of enrolment and drop-outs, especially the social factors have more influence on determining the level of enrolment as well as drop-outs in elementary schools especially in Karnataka. The major socio-economic factors influencing school participation of certain groups have been identified as income, poverty, gender, caste, tribe and religion. Hence, in this paper an attempt has been made to analyze the status of enrolment and drop-outs across the states briefly to know about the exact scenario of both the

factors which are determine the school attainment and also it tries to examine the various determinants of the enrolment and drop-outs in Karnataka. Another important thing is that, the economic factors are more concentrated for the analysis of the determinants of enrolment and drop-out rather than social factors though they have high influence on enrolment and drop-outs.

2. Objectives

The present paper has been prepared on the basis of two important objectives. They are as follows

- To discuss the Socio-economic Determinants of Enrolment and Drop-outs in Schools in Karnataka.
- To analyze the impact of various economic determinants of the enrolment and drop-outs in Karnataka.

3. Methodology

The present paper has been both descriptive and analytical in nature. It is descriptive while dealing with the status of the enrolment as well as drop-outs across the states in India and it is analytical while analyzing the various factors which are determining the enrolment as well as drop-outs in India. The cross sectional secondary data of 2011 Census has been used and also multiple regression model is also used to analyze the determinants of the above factors.

4. Socio-economic Determinants of Enrolment and Drop-outs in Schools

Economic factors play an important role in influencing schooling decisions of children. Studies reveal that factors such as high income levels, land ownership, non-agricultural occupations and economic motivation for education of children are positively correlated with high enrolment and continuation. These costs are of two types. The opportunity costs (which refer to the value of time lost when children for go work and attend school) are high for the education of girls who bear the burden of domestic work. They are also high for boys who are withdrawn to supplement farm labour during peak agricultural activity. The major socio-economic factors influencing school participation of certain groups have been identified as income, poverty, gender, caste, tribe and religion. In rural India, girls' participation in schooling has been lagging behind that of boys due to several socio-economic factors

such as gender, son preference, puberty and early marriage and income and poverty, and economic disincentives for girls' education etc.

The socio-economic factor of caste hierarchy has historically deprived the backward and scheduled castes from exploiting educational opportunities. Lower castes have suffered educational deprivation due to low income, child work, parental illiteracy, physical segregation and social discrimination in the community and at school. The next important factor which determining the level of school education is poverty. With more than 250 million people in India living on less than a \$1 a day, poverty remains a major barrier to educational access. Although education is provided 'free' by the government, the cost of uniforms, textbooks and transportation costs are beyond the reach of many households (Tilak, 2004). Added to these direct costs are the indirect (opportunity) costs of wage/domestic labour which children perform and the costs of acquiring education become considerable for households. Perhaps, the largest disparity in educational attainment in India is from rural and urban location shows total literacy rates by sex for population belonging to the age category 7+ and above for rural and urban India for the years 1991 and 2001. While there has been some catching up in literacy rates for both males and females between 139 rural and urban areas, the differences continue to be unacceptably large, especially for females. Only 46% of females in rural areas were literate as opposed to nearly 73% in urban areas in 2001, a gap of around 27 percentage points. For males, the gap was lower at around 15% percentage points with 71.18% of males in rural areas and 86.42% in urban areas being literate in 2001. Now, the literacy rate of India has been increased to 74% and the male literacy is 82.1% as well as female literacy is 65.5% (State Report Cards 2011-12).

Hence, in this study, an attempt has been made to evaluate the status of the enrolment and drop-outs and the determinants of the enrolment as well as drop-outs in Karnataka. Here some of the important development indicators such as GDDP, Literacy, female literacy, urban population and also poverty, these state-wise indicators are considered as determinant variables of both enrolment as well as drop-outs in Karnataka. The following table has shown the complete statistics related to the above development indicators which are considered as the determinants of education.

Table: 1 District-wise Enrolment, Drop-outs, GDDP, Female Literacy Urban Population and Level Poverty of Karnataka 2011.

Name of the District	Enrolment	Drop-outs	GDDP	Poverty	Female Literacy Rate	Urban Population
Bagalkot	277070	5.61	21980	77.15	58.6	31.7
Bangalore Rural	103715	0.77	NA	22.3	70.7	27.1
Bangalore	691627	0.92	107991	2.1	77.75	59
Belgaum	273267	2.92	28863	46.65	64.7	25.3
Bellary	335725	7.26	40189	55.15	58.3	36.3
Bidar	307373	11.51	47475	58.8	61.7	24.9
Bijapur	369480	9.49	22934	37.65	56.5	23
Chamarajanagar	102831	3.73	24032	11	54.3	17.2
Chikkaballapura	143895	7.41	30207	18.2	61.6	22.3
Chikkamagalore	117433	2.55	24196	3.45	72.9	21.1
Chithradurga	196409	4.43	25129	23.85	66.1	19.8
Dakshina Kannada	234418	1.31	55583	9.55	84	47.6
Davanagere	245794	7.07	35225	44.1	69.4	32.3
Dharwad	241179	6.08	19574	35.6	73.6	56.8
Gadag	140807	2.97	18115	69.4	65.3	35.7
Gulbarga	418007	4.77	22014	62.3	55.9	32.5
Hassan	177167	1.14	27419	16.3	68.3	21.2
Haveri	201813	7.17	22865	37.5	70.7	22.3
Kodagu	62875	3.51	51159	12.05	77.9	14.6
Kolar	177184	2.86	33694	2.1	66.6	31.4
Koppal	203138	10.62	17255	74.65	56.2	16.8
Mandya	176816	1.82	24353	19.7	62.1	17.1
Mysore	330685	2.18	37843	9.7	66.6	41.4
Raichur	282715	8.44	22988	76.35	49.6	25.3
Ramanagara	107033	2.08	25202	5.3	61.3	24.6
Shimoga	200921	6.2	35321	15.15	74.9	35.5
Tumkur	173891	0.41	20077	28.7	66.5	22.5
Udupi	115341	0.79	48310	2.75	81.4	28.4
Uttara Kannada	76257	3.53	14996	18.65	78.2	29.1
Yadagiri	177937	11.11	NA	60.1	41.3	18.8

Source: Census of India 2011, Elementary Education in India-Where do we Stand State Report Cards and www.rbi.org

NA-Not Available

5. Estimation Methodology

This section attempts to empirically pin down the determinants of enrolment and drop-outs caused for the economic growth through high literacy rates. The study has been examined the impact of District income (GDDP), poverty, female literacy and other factors influencing on the level of enrolment as well as drop-outs of elementary schools of Karnataka for the period of 2011. The study has used the cross sectional data to analyze the impact of such factors on the enrolment as well as the drop-out of elementary schools of Karnataka by employing the following multiple regression model to measure the influence of the factors like GDDP, poverty, urban population, female literacy on the level of enrolment as well as drop-outs.

Whereas, to find out the determinants and its impact on enrolment and drop-outs in Karnataka, the model is as follows

$$\ln ENROL = \ln \beta_1 + \beta_2 \ln GDDP + \beta_3 \ln FEMLIT + \beta_4 \ln URBPOP + \beta_5 \ln POV + U$$

$$\ln DROP = \ln \beta_1 + \beta_2 \ln GDDP + \beta_3 \ln FEMLIT + \beta_4 \ln URBPOP + \beta_5 \ln POV + U$$

Here also same dependent and explanatory variables have been used to find out the influence of the explanatory variables on enrolment and drop-outs of elementary schools in Karnataka. The district-wise data of level of income (GDDP), female literacy rate (FEMLIT), urban population (URBPOP) and the level of poverty (POV) have been considered as explanatory variables.

5.1 Results and Discussions for the Determinants of Enrolments in Karnataka

The multiple regression analysis has been used to measure the impact of socio-economic factors on the enrolment and drop-outs in Karnataka. The results of the model are follows

Table 2: Multiple Regression Results of Determinants of Enrolment in Karnataka

Enrolment	Coef.	Std. Err.	t	P>t
Ln female Literacy	.0658349	.0734766	0.90	0.380
Ln Poverty	-1.926107	.6510785	-2.96	0.007*
Ln Urban Population	1.000608	.2066181	4.84	0.000*
Ln GDDP	.2375583	.1047961	2.27	0.033*
constant	14.3012	2.820401	5.07	0.000*

Note: * denotes 1% level of Significance

Here, the dependent variable is enrolment in elementary schools of Karnataka. From the table 4.3 firstly, the female literacy rate which is positively related to the enrolment and also statistically insignificant. It means that, a one percentage increase in female literacy (FEMLIT) the enrolment would increase by 0.065% with the 't' value of 0.90. Hence, the female literacy is positively related to enrolment. But the Poverty has a negative and significant effect on enrolment rate of Karnataka. This indicates that the effect of poverty on enrolment is negatively influenced on the level of enrolment. So, the negative and significant relationship of poverty (POV) implies that a rise in one percentage of poverty leads to fall by -1.92% in enrolment with the 't' value of -2.96 which is negative in nature.

Thirdly, the coefficient of urban population (URBPOP) has a positive influence on the enrolment in schools of Karnataka, which indicates that a rise in one percentage of urban population leads to increase in 1% of enrolment. So, the 't' value is 4.84 which also statistically significant. It means that, the increasing trend of urban population leads to increase in enrolment so both are positively related. Whereas, the coefficient GDDP also has a positive impact on the growth of enrolment which reveals that, one percent increase in the GDDP leads to increase 0.23% of the enrolment. It is also statistically significant with the 't' value of 2.27. So, the enrolment also highly influenced by the GDDP which means that both have positive relationships.

Finally, it is quite clear from the above results, the explanatory variable like female literacy, GDDP and urban population are having a positive influence on the enrolment in Karnataka elementary schools. But the variable poverty has the negative impact on the enrolment.

5.2 Results and Discussion for the Determinants of Drop-outs in Elementary Schools of Karnataka

Table 3: Multiple Regression Results of Determinants of Drop-outs in Karnataka

Dropouts	Coef.	Std. Err.	t	P>t
Ln GDDP	-.1978329	.2091149	-0.95	0.354
Ln Poverty	.369355	.1466184	2.52	0.019**
Ln female literacy	-1.599215	1.299191	-1.23	0.231
Ln urban population	-.0230384	.4122949	-0.06	0.956
constant	4.863864	5.627955	0.86	0.396

Note: ** denotes 5% level of Significance

The results of the table 4.4 shows the impact of the independent variable i.e., GDDP, poverty, female literacy, and urban population on the dependent variable i.e. drop-outs in elementary schools in Karnataka. From the above table, the variable GDDP has negative influence on the drop-out which implies that, one percent increase in the GDDP leads to decrease -0.19% of the drop-outs. So, the GDDP has been negatively influenced on drop-outs with the insignificant and negative 't' value of -0.95. Whereas, the coefficient of poverty is influenced positively on drop-outs which says that one percent increase in the poverty leads to increase 0.369% of the drop-outs. Hence, it is also statistically significant with the 't' value of 2.52. Subsequently, the female literacy also proved the negative impact on drop-outs and the 't' value is -1.23 which is negative in nature but it is statistically not significant. It means that, one percent increase in female literacy leads to decrease -1.59% of the drop-outs. Likewise, the variable urban population is also negatively influenced on the drop-outs, which means that one percent increase in the urban population leads to decrease -0.023% of drop-outs. So, it is also statistically not significant with the 't' value of -0.06 which is negative in nature.

Conclusion

On the basis of the discussion, it may conclude that, the social factors are affected more on the enrolment and drop-outs of the primary as well as elementary education. Further, the variable like, GDDP, female literacy, urban population and the level of poverty have considered analyzing the influence of these variables on the level of enrolment as well as the drop-outs in primary as well as elementary schools in Karnataka. The findings of the study shows that, the factors like GDDP, literacy rate, urban population have the positive influence on the level of enrolment and the variable poverty has negative impact on enrolment. On the other hand, GDDP, female literacy and urban population has negative influence on drop-outs and poverty has a positive impact on drop-outs. Hence, the government has to take some savior steps in improving the level of income, female literacy level to promote the enrolment and reduce drop-outs in schools. Finally, it has been very clear that, even though there is a positive influence of economic factors, the social factors have been influencing more on education especially on enrolment and drop-outs as well as education attainment.

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