

Research Paper

Economics

Resource Allocation and Regional Disparity

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ABSTRACT

There is a positive relationship between resource allocation and educational development. However, allocation to education may not be equally distributed to all regions and places due to various reasons. In this paper an attempt has been made to examine the regional disparities in resource allocation for the primary education in Karnataka. Knowing the importance of education, government of Karnataka has been given considerable importance primary education and its allocation for primary education has been significantly increased. Even-though, there are differences between South and North Karnataka these differences are not very significant, but the division-wise differences are significant. Therefore, in Karnataka, disparities in plan allocation to primary education exist only among the divisions not between South and North Karnataka. Hence, government of Karnataka has to give attention to solve the divisional disparities in plan allocation of resources to primary education in order to ensure equity in educational development of overall Karnataka.

KEYWORDS : Education, Investment, Regional Disparity, and Government Intervention

Introduction:

There is a positive relationship between resource allocation and educational development (Chakravarthy, 1981), (Amitab Kundu, 1999). However, allocation to education may not be evenly distributed to all regions and places due to various reasons (Chandan, 2010). Disparities in resource allocation lead to disparities in educational infrastructure development which result in uneven educational development of the state (Nanjundappa.D.M., 2001), (Gayathri.k., 2007), (Mishra S.N., 2001), (Gulati, 2001), (Meade, 2012). Hence, in this paper an attempt has been made to examine the regional disparities in resource allocation for the primary education in Karnataka. The major focus of this analysis is to examine whether the plan allocation has been evenly distributed or not to all regions and divisions of Karnataka. For the purpose of analysis, Karnataka has been identified as South and North Karnataka based on regional specification as identified by government of Karnataka. Further, there are four divisions in Karnataka and all these divisions have been considered for the disparity analysis: these divisions are, Bangalore, Mysore, Gulbarga and Belgaum divisions.

Methodology:

The time series data plan allocation for primary education (PAPE) has been used for the analysis. Since, resource allocation is a financial variable; it has been deflated before use for analysis. Trends have been computed to identify the direction of growth and performance. The t-test has been used for the mean comparison of variables between the regions. The F-test has been used for the comparison of variance of the variables between the regions. ANOVA and Duncan tests have been used for comparison among the divisions.

Growth and Trends in PAPE:

Plan allocation to primary education is one of the major determinants of development of education. Positive growth in the plan allocation is a positive indication of educational development. The following table presents the growth in plan allocation and its direction.

Table 1: Trends and Disparities in PAPE in Karnataka (In Lakh Rupees)

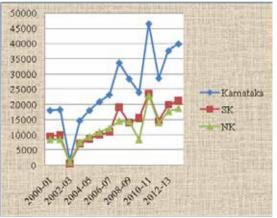
Year	Karnataka	AGR	SK	AGR	NK	AGR
2000-01	18047.65		9508.35		8539.3	
2001-02	18309.98	1.45	9767.979	2.73	8542.001	0.03
2002-03	1613.455	-91.19	594.2792	-93.92	1019.176	-88.07
2003-04	14708.28	811.60	7096.504	1094.14	7611.78	646.86
2004-05	18052.08	22.73	8625.134	21.54	9426.947	23.85

2005-06	20917.64	15.87	9932.157	15.15	10985.48	16.53
2006-07	23198.42	10.90	10967.6	10.43	12230.82	11.34
2007-08	33712.38	45.32	19023.49	73.45	14688.88	20.10
2008-09	28431.29	-15.67	13968.49	-26.57	14462.8	-1.54
2009-10	23984.26	-15.64	15471.88	10.76	8512.385	-41.14
2010-11	46560.15	94.13	23510.54	51.96	23049.6	170.78
2011-12	28618.13	-38.54	14600.22	-37.90	14017.91	-39.18
2012-13	37671.88	31.64	19886.47	36.21	17785.4	26.88
2013-14	39927.12	5.99	21111.74	6.16	18815.37	5.79
AAGR		67.59		89.55		57.86

Source: Plan Documents of Karnataka for various years.

It has been found from the above table that the average growth of financial plan allocation for primary education in Karnataka is 67.59 percent. However, there has been greater instability in the growth. Meantime, growth of allocation is more in South Karnataka compared to North Karnataka. Instability in the growth presented in the following graph. Therefore, in relative terms there is regional disparity in growth of plan allocation for primary education in Karnataka.

Graph a: Plan Allocation for Primary Education in Karna taka



Source: Plan Documents of Karnataka for various years.

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It has been found from the data that the average growth of plan allocation for primary education in Bangalore division is 102 percent, 80 percent in Mysore division, 30 percent in Gulbarga division and 127 percent in Belgaum division. However, there has been greater instability in the growth. Meantime, growth of allocation is high in Belgaum division and less in Gulbarga Division. Therefore, in relative terms there are disparities in growth of plan allocation for primary education in Karnataka. Instability in the growth presented in the following graph.

Graph b: Trends and Disparities among Divisions of Karnataka in PAPE

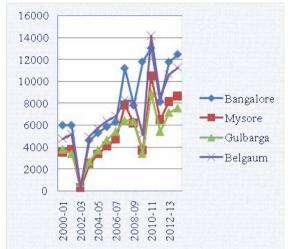


Table 2: Comparison of PAPE between SK and NK

Regions	N	Mean	Std. Deviation	Std. Error Mean
South Karnataka	14	13147.4888	6284.01306	1679.47314
North Karnataka	14	12120.5613	5566.47646	1487.70341
F-value: 0.359 Sig: 0.554		t-value: 0.458 Sig: 0.651		df: 26

During the last fourteen years, the average plan allocation for primary education in South Karnataka is 13147.5 lakh rupees and it is 12120.6 lakh rupees in North Karnataka. It is found from the F-test that difference in the variance between the series is not significant. Hence, equal variance assumed. It is found from the t-test that difference in the mean value between South Karnataka and North Karnataka is not significant. Hence, there are no significant differences between South and North Karnataka in terms of plan allocation to primary education. Therefore, in absolute terms there is no regional disparity in Karnataka in terms of plan allocation to primary education.

Table 3: ANOVA for Comparison of PAPE among Divisions of Karnataka

Groups	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	86309715.130	3	28769905.043	3.039	.037
Within Groups	492338768.591	52	9468053.242	-	-
Total 578648483.720		55 -		-	-

Source: Computed by Authors.

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It has been found from the ANOVA that one of the divisions is significantly differ from other divisions in terms of plan resource allocation to primary education in Karnataka. However, which division is significantly differs from other division is not found from ANOVA test. Hence, the multiple comparisons Duncan test was conducted to find significant differences among the divisions in terms of plan resource allocation to primary education in Karnataka.

Table 4: Multiple	Comparison	of PAPE	among	Divisions
of Karnataka			-	

Division wise PAPE				
Duncan				
Divisions		Subset for alpha = 0.05		
Divisions	N	1	2	
Gulgarga	14	4965.3188		
Mysore	14	5250.2164		
Belgaum	14	7155.2427	7155.2427	
Bangalore	14		7897.2720	
Sig.		.080	.526	
Mana fan mana in hann ann an harta an dimlanad				

Means for groups in homogeneous subsets are displayed.

Source: Computed by Authors.

It has been found from the Duncan test that in Karnataka, the plan allocation for primary education for Bangalore division is significantly higher than Mysore and Gulbarga divisions, but there is no significant difference with Belgaum. The plan allocation for primary education is significantly low in Gulbarga compared to Bangalore, but there are no significant differences with Mysore and Belgaum divisions. Hence, in absolute terms, plan allocation to primary education is more in Bangalore division and less in Gulbarga division. Therefore, there is a division-wise disparity in Karnataka in making plan allocation for primary education.

Conclusion:

Education is an important means of achieving development in general and human development in particular. Knowing the fact, government of Karnataka has been given considerable importance primary education and its allocation for primary education has been significantly increased. Even-though, there are differences between South and North Karnataka these differences are not very significant, but the division-wise differences are significant. Therefore, in Karnataka, disparities in plan allocation to primary education exist only among the divisions not between South and North Karnataka. Hence, government of Karnataka has to give attention to solve the divisional disparities in plan allocation of resources to primary education in order to ensure equity in educational development of overall Karnataka.