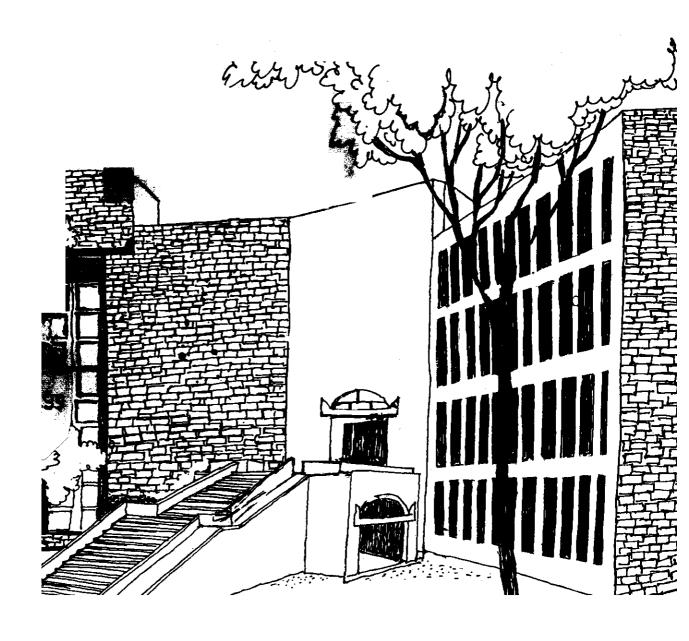




# Working Paper



## QUANTIFICATION OF DISTRIBUTIONAL IMPACT OF GOVERNMENT EXPENDITURE ON SELECTED SOCIAL SERVICES

By

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### QUANTIFICATION OF DISTRIBUTIONAL IMPACT OF GOVERNMENT EXPENDITURE ON SELECTED SOCIAL SERVICES

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#### Introduction

It has been rather taken for granted that government expenditure promotes growth and lately attempts have been made to introduce several such plan schemes that can lead to social justice in economic sense as well. However, hope of achieving certain goals at the planning stage and actually achieving the same through annual expenditure decisions and realisations has been found, in a recent study by the author (1981), to be tracing divergent paths over the past planning periods. In the same study optimal solution for such annual expenditure decisions have been provided that could lead to achievement of best possible targets under the prevailing economic situation and in accordance with chosen quals and objections. Even if this were implemented and realised as envisaged the distributional impact of such expenditures need not necessarily be of desired type. For example, Gupta (1977) found that share of poor was below even one-sixth of total benefits of Central Government expenditure during 1973-74. Naturally

if this pattern of distributional impact of government expenditure is to continue the gap between rich and poor is bound to widen further.

Study of distributional impact of government expenditure at State level has not been paid due attention so far though it is equally important owing to the developmental role played by constituent States in India. is believed that expenditure on social services is more labour intensive than expenditure on economic services. Accordingly, we selected four such major heads, namely, education, health, medical and family planning for detailed study relating to distributional impact of government expenditure. Expenditure on primary education is excluded from expenditure on education because details of primary education are found in budgets of Zilla and Taluka Panchayats whereas we have restricted our study to data available in State level budgets only owing to budget and time constraints. We have studied expenditure data for three consecutive financial years, namely, 1975-76 1976-77, and 1977-78 for Gujarat State rather than a single year to generate an average picture of distributional impact of expenditure.

#### 2. Empirical Quantification of Distributional Impact

We plan to use three different critrion for analysing distributional impact. In the first case, we identify the group of people who are ultimate recipients of money involved in government expenditure in their capacity as suppliers of goods and services. The second criterion involves estimating that part of expenditure which goes to employees and the remainder that goes elsewhere. The third criterion pertains to estimation of proportion of expenditure that goes directly to intended beneficiaries in terms of materials actually received by them.

The first approach for analysing the distributional impact is based upon the fact that whatever is spent by the State is either received by employees or by those who sell goods and services to the government. The employees in turn spend their earnings on consumption and saving goods. This expenditure is received by those who are sellers of goods and services. Thus the entire government expenditure is spent in the first round on goods and services and the recipients of the money thus spent can be identified in the following manner. In what follows we have done the classification according to producers engaged at primary, secondary and tertiary stages. Table 1 provides such a classification where items of consumption are same as in NSS Table No. 240, 28th round 1973 - 74.

Table 1: Classification of Beneficiary Groups.

S. No.	Beneficia y group	Consisting of NSS components of expenditure
1	Producers of food crops	cereals, gram, cereal substitutes, pulses and products
2	Producers of cash crops and other items	milk, edible oil, meat, fish and egg, vegetables, fruits and nuts, spices
3	Agrobased industry	sugar, beverages and refreshments, pan, tobacco and intoxicants
4 .	Manufacturing industry	salt, fuel and light, clothings, footwear, miscellaneous goods and services, durable goods
5	Property owners	rents
6	Government	taxes

Salaried group consists of officers and others. The officers are assumed to follow urban pattern of consumption. Therefore, for this part of salaried group, we employed the consumption pattern corresponding to per capita monthly expenditure group of Rs.200 and above as given in Table No. (2.4/U) round 28, 1973-74 for the State of Gujarat. For other segment of the salary earners, average of rural and urban consumption pattern corresponding to per capita monthly expenditure group of Rs.75-200 was considered and the figures were worked out from those given in Table Nos.(2.4/U) and (2.4/R) of round 28, 1973-74 for Gujarat.

he expenditure in various categories were apportioned to peneficiary groups as given in Table 1 for three consecutive financial years in case of aggregate education, aggregate health, aggregate family planning and aggregate medical expenditure figures. The final position in terms of percentage distribution of government expenditure in selected social services is given in the Table 2.

Table 2: Distribution of Expenditure on Beneficiary
Groups

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Beneficiary group		1975-76	76-77	77-78	75-76	76-77	77-71
		(1)	(2)	(3)	(4)	(5)	(6)
93	Producers of food crop	22.04		20.00	_		
2	Producers of cash crops and other items	22.27	22.68	20.59	15.32	21.92	16.3
3	Agrobased industry	10.98	11.17	10.33	7.38	10.57	7.8
4	Manufacturing industry	y 42.20	41.12	46.68	60.05	42.84	57.32
5	Property owners	2.51	2.55	2.37	1.70	2.42	1.80
	Sub-total of 2 to 5	77.96	77.52	79.97	84.45	77.75	83.36
	Government	0.00	0.00	0.03	0.02	0.03	0.03
	Total	100	100	100	100	100	100

Table 2 (contd.)

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Beneficiary group		1975-76	76-77	77-78	75-76	76-77	77 <b>–7</b> 8
	•	(7)	(8)	(9)	(10)	(11)	(12)
1	Producers of food						
i •	crop	16.65	17.95	16.81	21.77	22.92	22.69
2.	Producers of cash		•	*			
	crops and other items	16.76	18.30	17.20	2 <b>1.3</b> 0	22.41	22.24
3.	Agrobased industry	8.24	9.10	8 <b>.£</b> 0	10.18	10.71	10.64
4.	Manufacturing industry	56.43	52.54	55 <b>,3</b> 9	44.39	41.47	41.97
5.	Property owners	1.89	2.08	1.97	2.33	2.45	2.43
	Sub-total of 2 to 5	83.32	82.02	83.16	78.20	77.04	77.28
	Government	0.03	0.03	0.03	0.03	0.04	0.03
	Total	100	100	100	100	100	100

Treating those involved in activities from serial numbers 2 to 5 as relatively richer group in comparison to those engaged in production of food crops, we can work out proportion of jovernment expenditure going to rich and poor defined in this sense.

Average of these over the three years was computed to obtain the result as given in Table 3. The same table also provides ranks according to proportion of benefits going to the poor.

ole 3: Ranking of Expenditure Heads According to
Distributional Impact

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Expenditure Head	Share of rich	Share of poor	Share of Government	Rank
Education	78.48	21.51	0.01	2
Hea <b>lt</b> h	81.85	18,12	0.03	3
Medical	82.83	17.14	0.03	4
Family Planning	7 <b>7.</b> 51	22.46	0.03	1

Obviously, considering social justice as the proper criterion, the expenditure head that contributes highest in terms of its share going to the poor should be ranked higher than others. Using this criterion, one may rank the expenditure heads as given in Table 3.

Proportion of expenditure going to employees in the form of wages, salaries and other receipts can be considered as another criterion to judge the impact of distribution if the objective is to generate employment through government expenditure. These results are reported in Table 4 together with ranks of the expenditure areas determined in accordance with share of expenditure on employees.

Table 4: Percentage Share of Expenditure on Employees

Expenditure head	1975-76	1976-77	1977-78	Average	Rank
Education	82.83	86.60	76.98	82.14	1
Health	50.45	76.91	49.83	59.06	3
Medical	54.80	63.86	58.60	59.09	2
Family Planning	36.51	32.41	37.61	35.51	4
		•			

Share of expenditure on employees in health is relatively higher during 1976-77 because in that year unusually higher proportion of expenditure was incurred on Malaria Eradication Programme and major part of it is shown to be on wages and salaries.

Looking at the distributional benefits of government expenditure from yet another angle, namely, proportion going to direct beneficiary groups, we get the picture as in Table 5. The expenditure in this table is on the materials and goods in physical sense that are provided to ultimate beneficiaries in education, health, medical and family planning.

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Table 5: Percentage Share of Expenditure on Materials for Beneficiary Groups

Expenditure head	1975-76	1976-77	1977-78	Average	Rank
Education	1.80	0.63	2.38	1.60	4
Health	2.54	1.88	2.01	2.14	3
Medical	3.61	3.09	3.46	3.39	1
Family Planning	2.36	3.67	1.97	2.67	2

It is obvious from Table 5 that only an insignificant amount is spent on beneficiaries in terms of materials and goods. For instance, of hundred rupees spent bt government Rs. 2.67 reaches the beneficiaries from family planning, Rs. 2.14 reaches the beneficiaries from health programmes, Rs. 3.39 reaches the beneficiaries from medical schemes and so on. The question must be debated as to whether greate: impact could be had by trying to alter this lopsided expenditure pattern. Time may be approaching fast when people would need more of family planning equipments rather than advice from extension workers. The same could be said in case of other expenditure heads.

### Concluding Remarks:

All of these results considered together lead us to very important conclusions. Table 3 suggests that most of government expenditure ultimately reaches those in secondary and tertiary sectors and very little goes to producers of food crops who are the actual majority in the country. As far as correcting this imbalance in the economy is concerned, any reallocation of government expenditure as such may take only marginal improvement. A significant change for better can be brought about by changing to more relevant expenditure mix and bringing about a meaningful pricing policy that can ensure equitable growth in agricultural and industrial sectors. A two-sector analysis of this problem is provided by Misra (1969)

where a method of computation of such prices is suggested for a two-sector economy whereby sectoral growth as influenced by prices via distributional route can be made even in future even though past distortions are not touched Classification in Table 3 also suggests that Gujarat economy can be easily treated as two-sector economy so far as distributional impact of government expenditure is Results given in Table 4 suggest varying level concerned. of employment potential of different expenditure heads but this criterion should be used with a pinch of salt. is because employment in government can be useful provided it is productive to the economy and capable of providing competitive wages. On the contrary, one may argue that social welfare schemes should try to minimise expenditure on establishment and maximise physical benefits promoted through these to improve quality of life. Looking at the expenditure pattern from the angle of material benefits going to beneficiary group, as given in Table 5, one finds that only a trifling proportion reaches the beneficiaries in each one of the expenditure areas considered here. Thus, it may be a better strategy to modify expenditure mix that improves the gains of the beneficiaries as defined in Table 5 and the poor as defined in Table 3. For this purpose individual programmes will have to be examined For instance, consider expenditure on health. carefully.

In this sector increase in home-grown nutritional materials if supplied to deficient groups will directly satisfy both the criteria of distribution as pointed out above. Imported nutritional items do not help the poor in the majority category of producers of food grains. Accordingly, attempt should be made to promote production of enough nutritional food in the agriculture sector and make them available to women and children of the rural and urban poor and this will lead to better situation relating to impact of expenditure in respect of distribution of its benefits.

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