

THE IMPACT OF GOVERNMENT EXPENDITURE  
ON INCOME DISTRIBUTION IN NIGERIA BETWEEN  
FINANCIAL YEARS 1971/72 AND 1976/77

BY

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CERTIFICATION

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### DEDICATION

This thesis is dedicated to my late father, Rev. JOSIAH ONI LONGE, who struggled hard to educate me, but did not live long enough to enjoy the fruits of his labour. I got the news of his death in Britain, only thirty minutes before I was scheduled to collect my approved Master's thesis from my supervisor.

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Above all, I am profoundly grateful to God, for all his mercies, blessings and guidance.

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ABSTRACT

This thesis attempted an estimation of the impact of Federal government expenditures on income distribution. Using documentary, survey and case study research methods, and employing statistical methods of analyses, the study estimated the distribution of Federal government expenditures for 1971/72 and 1976/77 financial years among the regions and the distributional impacts of 1976/77 Federal government expenditures on education, health, housing, electricity and general services among income-groups.

The study found that the Federal government expenditures have reduced regional disparities in income between 1971/72 and 1976/77. When the impact of government expenditures among income-groups was considered, it was found that it was regressive, that is pro-rich. Thus, Federal government expenditures in Nigeria have been responsible for perpetuating income inequality. This result is contrary to government's declared objective in successive development plans, of using its expenditure policy in reducing inequality among income-groups. Suggestions were offered to enable government expenditures become progressive that is pro-poor.

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CHAPTER ONEINTRODUCTION1.1 Nature of the Problem

In most developing countries, development policy has largely been geared towards stimulating economic growth with a view to improving the welfare of the people. Recent studies have shown that although relatively moderate growth rates have been achieved by these countries, there still exist widespread poverty and intolerable pattern of income inequalities. In Nigeria also, rapid growth rates have been achieved since independence but recent studies have highlighted the extent of the problems of poverty and inequality in income distribution.<sup>1</sup> In view of the fact that pursuing economic growth alone has not helped to eradicate poverty and reduce income inequality, the emphasis on development policy in developing countries has shifted from stimulating economic growth to eliminating poverty and ensuring a more tolerable pattern of income distribution. The need to shift emphasis of development policy was expressed by Haq, when he declared that:

...We were taught to take care of our GNP as this will take care of poverty. Let us reverse this and take care of poverty as this will take care of GNP.<sup>2</sup>

The recognition of this important shift in development policy by the Federal Government of Nigeria is demonstrated by the fact that one of its declared objectives in the Second National Development Plan is to establish in Nigeria "a just and egalitarian society."<sup>3</sup> The Federal Government went on to explain that:

A just and egalitarian society puts premium on reducing inequalities in interpersonal incomes and promoting balanced development among the various communities in the different geographical areas of the country.<sup>4</sup>

This declared objective has been repeated in subsequent development plans.

Various policy instruments such as taxes, subsidies and others are used by governments to solve the problems of poverty and income inequalities, but certainly, public expenditures represent one of the most effective fiscal tools. The Federal Government of Nigeria has often used public expenditure policy as a strategy to achieve this purpose. Thus it declared in the Third National Development Plan:

With respect to income distribution, the plan strategy adopted is for public sector to provide subsidised facilities for the poorer sections of the population, including electrification, water supplies, health services, co-operatives and community development programmes in the rural areas and housing in the urban areas for low income groups. These programmes will directly raise the level of living of the poor classes and constitute a more practical means of income<sub>5</sub> redistribution than other direct measures.

The objective of eliminating poverty and reducing inequality through the use of expenditure policy leads to certain questions such as: Who really benefits from government expenditures? What types of benefits do they receive? What is the value and distribution of these benefits among the various income-groups? Efforts to answer these questions and other related lead to the major problem of this thesis which is: What is the distributional impact of Federal Government expenditure in Nigeria?

#### 1.2 The Purpose of the Research:

The main purpose of this thesis is to estimate the distributional impact of government expenditures in Nigeria by analyzing Federal Government expenditures for the 1976/77 fiscal year. The focus of the thesis is on the distributional impact of government expenditures among income groups and not the evaluation of the effects of government expenditures on income distribution.<sup>6</sup> The specific aims of the thesis are :-

- (a) to study the growth and structure of government expenditures
- (b) to study the regional distribution of government expenditures
- (c) to study the distribution of the benefits from government expenditures among income groups.



### 1.3 Justification of Study:

Government expenditure policy is a major fiscal tool aimed at redistributing income in Nigeria. An estimate of the distributional impact of government expenditures is a useful method by which government can know how successful it has been in its redistribution efforts. A similar view was expressed by McNamara, when he declared that:

...Shifts in the pattern of public expenditure represent one of the most effective techniques a government possesses to improve the conditions of the poor... Government can best begin to shift public expenditure towards those who need it most by initiating surveys on the effects of their current patterns of disbursement: where do the funds really go and who benefits the most.<sup>7</sup>

As a result of the importance attached to expenditure incidence studies, many researchers have undertaken such studies in many countries. Notable among such studies is that for the United States by Gillespie.<sup>8</sup> No such comprehensive study exists for Nigeria.<sup>9</sup> This study is therefore undertaken to fill up this gap in the hope that the major findings and recommendations can be of use in revising policy options aimed at improving the conditions of the poor and at the same time reducing income inequality in Nigeria.

### 1.4 Hypotheses Tested:

On the basis of the aims of study and the theoretical constructs contained in this study,

the following hypotheses were tested:

1. That the ratio of government expenditure to GNP rises as economic growth proceeds.
2. That the share of social services expenditure rises faster than other functional components of government expenditure as per-capita income increases.
3. That there are gross inequalities in the regional distribution of federal government expenditures.
4. That government expenditures rather than reducing income inequalities, increase it.

#### 1.5 Scope of Study:

Fiscal incidence studies involve the empirical analyses of the distributional impact of the budget. While some people consider the entire budget as a whole, others concentrate on certain parts of the budget. This research is restricted to the expenditure aspect of the budget.<sup>10</sup>

Nigeria operates a three-tier federal system of government, made up of the Federal Government at the apex, State Governments which occupy an intermediate position and local governments at the grassroot level. This research focuses on Federal Government expenditures. The expenditures of State and Local Governments are excluded to make the study more manageable.

The study examines the growth and structure of government expenditures from the 1959/60 to the 1979/80

fiscal years. This period was chosen because it represents the post independence years prior to the study.

The study also analyzes the regional distribution of government expenditures and its implications for income distribution for the 1971/72 and the 1976/77 fiscal years. The 1971/72 fiscal year was selected as the base year because it was the beginning of the Second National Development Plan in which the government declared that it was ensuring balanced development among the regions. The terminal year 1976/77 was selected because a five year duration was considered sufficient for the purpose of evaluating the success of the objective of balanced development among the regions.

The study further analyzes the distributional impact of actual current and capital government expenditures for the 1976/77 fiscal year among income groups. The expenditures for this fiscal year were analyzed mainly because they were the latest actual government expenditures for which data for various projects executed were available at the time of the study. In analyzing the impact of these expenditures among income groups, the study focuses on a limited number of expenditures whose distributional impacts are regarded as most important and suitable for such analysis. These are expenditures for education, health and housing in the social services category; expenditures for power in the economic services category; and expenditures for general administration.

## 1.6 Plan of the Thesis:

This thesis consists of nine chapters. Chapter One is the general introduction. A brief incursion into the theory of expenditure incidence is the subject of Chapter Two. In Chapter Three, the survey of the literature on expenditure incidence relevant to the present study is discussed. Chapter Four is devoted to a discussion of the methodology used in the estimation of the distributional impact of government expenditures. In Chapter Five, the growth and structure of government expenditures are examined. Chapter Six deals with the regional distribution of government expenditures. Chapter Seven is devoted to the distribution of beneficiaries of government expenditure in Nigeria. This Chapter summarizes the results of a survey conducted to obtain information on the distribution of beneficiaries of Federal Government expenditures and the value of such benefits categorized by income-groups. In Chapter Eight, the estimation of the distributional impact of government expenditure among income-groups was undertaken. The conclusion and policy recommendation based on the results of the study are the subject of Chapter Nine.

# FOOTNOTES

1. The studies which have highlighted the extent of poverty and inequality in income distribution in Nigeria can be found in, Poverty in Nigeria, (Proceedings of the 1975 Annual Conference of the Nigerian Economic Society, University of Ibadan, Ibadan). Other studies include O. Teriba and O.A. Phillips, "Income Distribution and National Integration," The Nigerian Journal of Economic and Social Studies, (The Nigerian Economic Society, March, 1971); A. Aboyade, "Income Profile," (An Inaugural Lecture delivered at the University of Ibadan on 3rd May, 1973); Egon Vielrose, "Distribution of Income in Nigeria," Mimeograph (Nigerian Institute of Social and Economic Research, 1974). More recent studies on the same issue are in Henry Bienne and V.P. Diejomah (Eds.), The Political Economy of Income Distribution in Nigeria, (Holmes and Meier Publishers, Inc., N.Y. and London, 1981).
2. Mahbub UI Haq, "Employment And Income Distribution In The 1970's: A New Perspective", Development Digest, (October, 1971), p. 7.
3. Federal Republic of Nigeria, Second National Development Plan, (Federal Ministry of Economic Development), p. 32.

4. Ibid, p. 33.
5. Federal Republic of Nigeria, Third National Development Plan 1975-1980, (Federal Ministry of Economic Development), p. 31.
6. The distinction between the distributional impact of government expenditure on income distribution and the effects of government expenditure on income distribution is similar to the distinction between expenditure incidence and benefit incidence treated in Chapter Two of this thesis.
7. Robert McNamara, "Annual Address" International Bank for Reconstruction and Development, International Finance Corporation, and International Development Association, 1972 Annual Meetings of Board of Governors, Summary Proceedings, (Washington, 25th September, 1972), p. 28.
8. W. Gillespie, "The Incidence Of Taxes And Public Expenditures On The Distribution Of Income", Richard Musgrave (Eds), Essays in Fiscal Federalism, The Brookings Institution, 1965.
9. Among such studies are those of O. Odufalu, "The Distributive Impact Of Public Expenditure In Nigeria", H. Bienne and V.P. Diejomach (Eds.), The Political Economy Of Income Distribution In Nigeria, N.Y. Holmes and Meier Inc; 1981:  
G. Mbanefoh, "Fiscal Process And Implicit

Personal Income Redistribution Under The Military In Nigeria", The Nigerian Economy Under The Military. (Proceedings of the Annual Conference of the Nigerian Economic Society) 1980. pp. 135 - 148.

10. Critics of fiscal incidence studies have suggested that a more meaningful result can be obtained by focusing on minor aspects of the budget. This is because such an approach facilitates detailed and thorough analysis of the incidence pattern under study. Afterall, it is the minute aspect of the budget that is more relevant for policy action.

## CHAPTER TWO

### EXPENDITURE INCIDENCE:

#### THEORETICAL CONSIDERATIONS

Public Expenditure can be analysed in terms of economic effects and incidence. This Chapter is devoted to a theoretical discussion of incidence since it is the basis of studies on the distributional impact of public expenditures. The first section of the Chapter focusses on the definition of expenditure incidence. The following section discusses the two types of incidence on the expenditure side and the confusion this distinction leads to. In the third section of the chapter, the theoretical considerations in the measurement of expenditure incidence are explored. The determination of the pattern of benefit distribution is discussed in section four. A simple model of expenditure incidence which was adopted in the estimation of the distributional impact of government expenditure is presented in the last section of the chapter.

#### 2.1 Definition of Expenditure Incidence

In defining expenditure incidence, it is necessary first of all to explain the distinction between tax incidence, expenditure incidence and budget incidence because of their interrelationship. Concern with



incidence has traditionally been focussed on the tax side of the budget. Tax incidence is defined as the changes in the distribution of income brought about by changes in tax policy. Analogously, expenditure incidence is defined as the changes in the distribution of income available for private use brought about by changes in public expenditures. Budget incidence becomes the changes in the distribution of income when the combined effects of tax and expenditure changes are considered.<sup>1</sup> While this distinction of incidence is useful in terms of analysis, it is relevant to point out that their effects are interrelated as they concern precisely the same group of people.

Focussing on expenditure incidence the major concern of this study, Musgrave argued that, the changes in public expenditures which give rise to expenditure incidence should be regarded as alternative types of expenditures within the framework of a balanced budget, while holding tax functions unchanged.<sup>2</sup> Musgrave argued that expenditure incidence should be analysed in this manner in order to isolate it from the incidence of inflation or deflation that may accompany the expenditure changes. The reasoning is that when tax function is held constant while expenditure is increased, the effect is inflationary since such an increase in expenditure is financed from say credit creation. The change in the

distribution of income under such a situation is the result of the increase in expenditure and the inflation generated from the mode of finance. Conversely, when tax function is held constant while expenditure is decreased, the change in the distribution of income is the result of the reduction in expenditure and deflation introduced. In order to analyse expenditure incidence more meaningfully by isolating the incidence of inflation or deflation, the tax function must be held constant while the effects of alternative types of expenditure on income distribution are analysed within the framework of a balanced budget. The distributional effects of a change in a particular expenditure policy are referred to as "specific expenditure incidence." But the distributional effects of a change in expenditure policy within the framework of a balanced budget while holding tax function constant is regarded as "differential expenditure incidence". Both analyses of expenditure incidence can only be conceptualized theoretically as no empirical base exists with which to isolate these effects.

## 2.2 Types of Expenditure Incidence

Two types of incidence have been identified on the spending side of the budget. These are "expenditure incidence" which consists of how government spending

affects private income, and referred to as "changes in the distribution of income disposable for private use" and "benefit incidence" which means who receives the benefit of public service<sup>3</sup>. This division of incidence into expenditure and benefit incidence has led to a lot of confusion because of the following three reasons. Firstly, benefits derived from public services can clearly be regarded as private income by their recipients. It is therefore unnecessary to define income too rigorously as consisting solely of returns on factors of production and on the spending side, solely of the goods and services which those returns can purchase. Secondly, confusion also exists by the use of "expenditure incidence" to refer to expenditure incidence alone or to both "expenditure incidence" plus "benefit incidence". Thirdly, the common definition of "tax incidence" as equal to the amount of the tax and the use made by Musgrave of expenditure incidence carry the impression that only expenditure has effects on relative prices, on techniques and on the volume of output and taxes have no similar effects.<sup>4</sup> This is why expenditure incidence is divided into two while tax incidence is not. But in reality taxes have similar effects on relative prices, techniques and on the volume of output.

Considering these three reasons, it should be realised that "expenditure incidence" and "benefit incidence" are closely related and the distinction made between them may not be helpful from the theoretical point of view, although it can be useful from the measurement point of view as explained in the next section below.

### 2.3 Theoretical Consideration In The Measurement of Expenditure Incidence

After the definition of expenditure incidence and a discussion of the two types of expenditure incidence, in this section, the theoretical considerations in the measurement of expenditure incidence is examined. The measurement of expenditure incidence follows the distinction obtained in the last section since this helps to bring out clearly what is being measured. Accordingly, the theoretical considerations in measurement of expenditure incidence and "benefit incidence" are presented separately.

#### 2.3.1 Expenditure Incidence

Essentially, this incidence involves measuring the total changes in income distribution brought about by the effects of government expenditure on prices of products and factors of production. In addition to this, it measures the effects of government expenditure on changes in output which are due to resulting changes in

technique, voluntary changes in labour supply, changes in savings and capital formation, or in the efficiency of resource use referred to as Richardian output effects.<sup>5</sup> Measuring this type of incidence certainly requires a lot of data and there is no systematic empirical basis with which to carry it out. Also, the theoretical implications of such a measure are overwhelming. Wulf argued that such an exercise is absolutely impracticable and unnecessary stating that:

These general equilibrium problems could be solved if a gigantic model of the economy were constructed and if all the data needed to feed such a model were gathered. Such a large scale exercise would require tremendous resources, and might not be worthwhile, since such a study implies a comparison of what is with what would have been if what is were not.<sup>6</sup>

Similar views that such a measure is not worthwhile were expressed by Meerman,<sup>7</sup> McLure,<sup>8</sup> and Thirsk.<sup>9</sup> Measuring this type of incidence has generally been ignored in budget incidence studies.

### 2.3.2 Benefit Incidence

Measuring benefit incidence essentially involves the estimation of the distributional impact of the benefits from government expenditures. A distinction is usually made between incidence of transfers and incidence of government expenditures on goods and services. Expenditure on transfers simply augments private disposable income without competing directly

for real resources, hence incidence of transfers are treated like negative taxes. The estimation of the distributional impact of benefits from government expenditure on goods and services is similar in some respects to the estimation of the distribution of tax burdens, but it is more difficult in many other aspects. While a tax is expressed in clear monetary value and is levied on well defined bases (such as income, wealth, production), the benefits from expenditures other than transfers essentially involves the attribution to households and business firms of the quantity of goods and services provided. This is the type of incidence that studies of incidence on the spending side of the budget usually measure.

#### 2.4 The Determination of the Pattern of Benefit Distribution

This section explains how the pattern of benefit distribution is obtained. The pattern of benefit distribution can be obtained by constructing a Lorenz curve.<sup>10</sup> In Figure 2.1, the cumulative percentage of benefits is measured on the vertical axis and cumulative percentage of beneficiaries (ranked from the lowest to the highest) on the horizontal axis. Line OB depicts perfect equality in the distribution of benefits. A pattern of distribution below line OB, like OGB depicts inequality in the distribution of benefits. In such a situation the

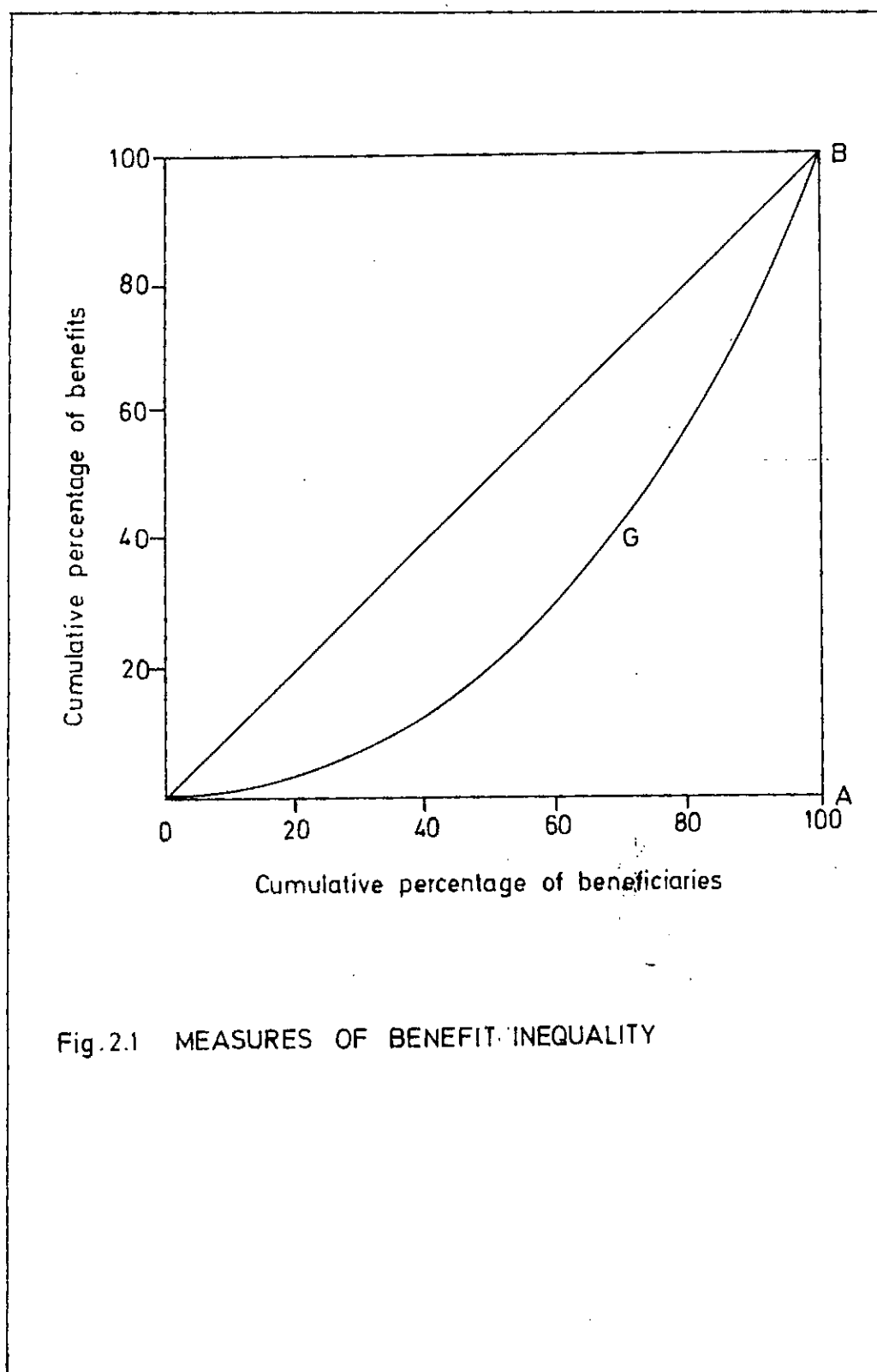


Fig.2.1 MEASURES OF BENEFIT INEQUALITY

impact of government expenditure is regarded as regressive, that is pro-rich.

Another approach known as Gini coefficient is to express the coefficient of inequality as the ratio of the area between the line of equality and the Lorenz curve, to the entire area below the line of equality, that is

$\frac{OGB}{OAB}$ . If the ratio is one, there is perfect inequality in the pattern of benefit distribution; if it equals zero, there is perfect equality in the distribution of benefits. This ratio can be measured by using the formula<sup>11</sup>

$$R = \frac{\frac{1}{2} \sum X_k (Y_k - Y_{k-1}) - Y_k (X_k - X_{k-1})}{5000}$$

where,

R = Gini Coefficient

$X_k$  = Cumulative percentage of total recipients up to and including the income class k

$Y_k$  = Cumulative percentage of total income up to and including the income class k.

There is also the "percentile" approach. This approach simply measures the percentage of benefits received by the poorest 20 percent the middle 40 percent and the richest 10 percent.

## 2.5 A Simple Model of Expenditure Incidence

This model by Meerman,<sup>12</sup> consists of definition and manipulation of the individual budget constraint in a manner that permits its decomposition into the various kinds of incidence.



Expenditure incidence can be viewed from the point of individual budget constraint. First, let us assume that in period I, there is no government and that income received by individuals consists mainly of returns to factors, physical or human. There are no financial savings, no inter-household transfers and all factors are assumed to be privately owned. The budget constraint for each individual can be written as:

$$Y_{1i}^P = \sum_{j=1}^n P_{1j} Q_{1j} \dots\dots\dots (1)$$

where  $Y_{1i}^P$  = private income of the  $i^{\text{th}}$  individual in period 1

$P_{1j}$  = price of private factor service  $j$   
supplied in period 1

$Q_{1j}$  = quantities of private factor service  $j$   
supplied in period 1

In the second period, we introduce government and assume for simplicity that it obtains its revenue mainly from taxes which is used to finance goods and services which benefit individuals free of charge. The budget constraint for individual  $i$  in the second period is made up of private income  $Y_{2i}^P$  plus total value of goods and services enjoyed from government expenditure  $Y_{2i}^G$  minus taxes paid by individual  $i$  denoted by  $T_{2i}$ . Thus, the budget constraint

for the second period can be written as:

$$Y_{2i}^P + Y_{2i}^G - T_{2i}$$

where

$$Y_{2i}^P = \sum_{j=1}^n P_{2j} Q_{2j}$$

One important point of note is that  $\sum_{j=1}^n P_{2j} Q_{2j}$  is a reflection of changes in the prices and quantities of factor services supplied as a result of government expenditure and tax policies.  $Y_{2i}^G$  defined as the value of goods and services enjoyed from government expenditure by individual  $i$  can be re-written as:

$$Y_{2i}^G = \sum_{k=1}^m B_k^G Q_k^G$$

where

$B_k$  = cost of good  $k$  supplied by government.

$Q_k$  = quantity of good  $k$  consumed by individual  $i$  and supplied by government.

Thus, equation (2) becomes

$$\sum_{j=1}^n P_{2j} Q_{2j} + \sum_{k=1}^m B_k^G Q_k^G - T_{2i} \dots\dots\dots (2)$$

Equation (2) is the total effect of the government fiscal policies. The first term is the effect of government fiscal policies on relative prices of factor services supplied and quantities of factor services bought. The second term is the goods and services produced by the government from the public expenditure. And the third term is the total taxes paid by the individual.

Following the classification in section 2.3 above, the measure of expenditure incidence is simply:

$$\sum_{j=1}^n P_{2j} Q_{2j}$$

and the measure of benefit incidence is  $\sum_{K=1}^m B_K^G Q_K^G$

It is relevant to note that  $\sum_{J=1}^n P_{2J} Q_{2J}$

defined as expenditure incidence is difficult and not worthwhile to measure. This was explained in section 2.3.1 above. No studies have attempted such measure.

Also,  $\sum_{k=1}^m B_k^G Q_k^G$  defined as benefit incidence is simply an estimate of the distributional impact of the benefits of government expenditure.

In view of the fact that the focus of this thesis is the estimate of the distributional impact by income-groups as explained in section 2.4 above, the total benefits received by a particular income-group is obtained by summing-up the benefits for all individuals that constitute the income-group. That is

$$\sum_{I=1}^f \sum_{K=1}^m B_{ik}^G Q_{ik}^G \dots\dots\dots (3)$$

where

$I = 1 \ 2 \ \dots\dots\dots f$  is the number of individuals in the income-group.

FOOTNOTES

1. This definition of incidence is clearly different from the commonly used concept of incidence to denote "the final resting place". Using this common concept, tax incidence is defined as the final resting place of a tax or the ultimate payer of the tax, while expenditure incidence is analogously defined as the final resting place of benefits of expenditures. For a more detailed discussion of this definition of incidence, see Richard Musgrave, The Theory of Public Finance, (McGraw-Hill, 1959), pp. 207 - 208 and 227 - 230. See also Richard Musgrave and Peggy Musgrave, Public Finance in Theory and Practice, (McGraw-Hill, 1976), pp. 376 - 380.
2. Richard Musgrave, The Theory of Public Finance, (McGraw-Hill, 1959), p. 214.
3. Ibid, Musgrave does not use the term "benefit incidence" directly in the text, although it is implied.
4. Jacob Meerman, Public Expenditures in Malaysia: Who Benefits and Why? (Oxford University Press, 1979), pp. 45 - 47.

5. Luc De Wulf, "Incidence of Budgetary Outlays: Where Do We Go from Here", Public Finance/Finance Publiques, 1981., pp 58 and 59.
6. Ibid.
7. Jacob Meerman, op cit.
8. Charles Maclure, "On the Theory and Methodology of Estimating Benefits and Expenditure Incidence", Paper Presented at the Workshop on Income Distribution and its Role in Development, (Rice University, 25th April, 1974).
9. Charles Maclure and W.Thirsk, "A Simplified Exposition of the Harberger Model II: Expenditure Incidence:", National Tax Journal, June 1975 pp. 195 - 207.
10. Richard Musgrave op.cit, pp 223 - 225. See also Richard Musgrave and Peggy Musgrave op.cit pp 381-383.
11. M.G. Kendal, Advanced Theory of Statistics Vol.1, London: Griffin and Co., 1943, pp 43 - 44.
12. A more detailed presentation can be seen in Jacob Meerman, op.cit, pp 44 - 62. Also reprinted as "Do Empirical Studies of Budget Incidence Make Sense" in Public Finance/Finance Publiques November, 1978.

## CHAPTER THREE

### A SURVEY OF THE LITERATURE

In the previous chapter, an attempt was made to discuss the theory of expenditure incidence and the issues involved in its measurement. In practice, a lot of controversy has been generated as to the proper method of its measurement. This chapter surveys the literature by first focus on the various approaches to measuring expenditure incidence. The second part of the chapter discusses the approaches to treating some of the problems discussed in the previous section.

#### 3.1 Approaches to the Estimation of the Impact of Government Expenditure on Income Distribution

Approaches to the estimation of the impact of government expenditure on income distribution can conveniently be discussed under the following sub-headings:

- i) Valuation of benefits
- ii) Identification of beneficiaries
- iii) Allocation of benefits among income-groups.

## I. Valuation Benefits:

The first aspect in the estimation of the impact of benefits from government expenditure on income distribution is the valuation of benefits. Government expenditures generate benefits. Benefits are goods or services measurable or non-measurable, marketable or non marketable, divisible or non-divisible accruing to a consumer or a group of consumers. Benefits are either direct or indirect. Direct benefits are those which relate closely to the main objective of government expenditures while indirect benefits are by-products. For example, expenditure on subsidized fertilizer directly benefits the farmers in the form of increased productivity and total output but it may also indirectly benefit the consumers through reduced commodity prices. The problem is to determine which benefits are relevant and how they should be valued. In view of the difficulties in tracing the full effects of the benefits from government expenditures, analysis of the impact of the benefits is restricted to the direct benefits therefrom. The valuation problem arises because most government goods and services are not sold in the market like cows and cars. It is

therefore impossible to observe the prices at which government goods and services are bought since individuals are unlikely to reveal their true preferences. In view of this difficulty, benefits from government expenditures are valued by using the "accounting approach".

The "accounting approach" is the method of equating the value of government output to the cost of government inputs. When one million naira is spent on education, exactly one million naira worth of benefits is therefore allocated either to those who receive educational services or those who receive payments from governments. This procedure, however, assumes that resources are allocated efficiently between the public and private sectors and that the goods and services provided by the public sector coincide with those a recipient would buy if he were given the corresponding amount of money, a set of assumptions that may not hold in many practical situations.<sup>1</sup> Despite these limitations, this method is favoured by researchers because it is the method used in national income accounting in valuing government or public services.



## II. Identification of Beneficiaries:

The second issue in the estimation of the impact of benefits from government expenditures is the identification of the ultimate beneficiary of publicly provided goods and services. Two approaches have been used to identify ultimate beneficiaries. These are the "money flow" approach and the "benefit" approach. The "money flow" approach concentrates on the recipients of direct payments made by the government without considering who ultimately benefits from the goods and services supplied through public expenditures. For instance, contractors who handled a road project are considered the recipients of expenditure on roads excluding the benefits that accrue to road users. The "benefit" approach emphasizes the goods and services produced by public expenditure and those who were the ultimate beneficiaries. In the example of road construction, road users are the beneficiaries from expenditures on road construction.

There are however, certain cases when even within the benefit approach, the beneficiaries are best identified by focussing on money flow. This is the case of transfer payments where the recipient and the beneficiary is generally the same person.

The benefit approach is superior to the money flow approach since government expenditures are meant to provide certain goods and services to the community and not to maintain civil servants on their pay roll or to be able to pay certain contractors. But when analyzing the regional distribution of government expenditure, that is, -estimating what amount of the budget is spent in various parts of the country or analyzing the sectoral distribution as between urban and rural areas, the money flow approach is more appropriate. This is because the analysis merely focusses on which region or sector receives budgetary payments, ignoring benefits which appropriately concern socio-economic units.

### III. Allocation of Benefits Among Income-groups:

The first issue in the allocation of benefits among income-groups is the determination of the extent of the benefits enjoyed by socio-economic units of the population. The theoretical basis on which the extent of benefits are imputed among socio-economic units rests on the concept of shifting. It is true that for a large share of government expenditures, particularly expenditures on social and general services, very little shifting

of benefits occur. This problem is not the same in the case of expenditures in economic services where shifting of benefits do occur, as in the earlier example of expenditure on subsidized fertilizer where forward shifting of benefits to consumers or backward shifting to the productive factors might take place.

Economic theory tells us how various types of taxes are shifted and their incidence used in estimating tax burdens. Unfortunately, the theory of shifting as far as benefits from government expenditures are concerned has not been thoroughly analysed. This is why most studies on the impact of government expenditure ignore expenditures on economic services where shifting of benefits occurs, concentrating on social services expenditures where little shifting of benefits occurs. Those researchers that have attempted to analyze expenditures for economic services have not based their analysis on crude assumptions about shifting but rather on what might be termed as crude assumptions about impact.<sup>2</sup> Thus, benefits from expenditures on economic services are distributed among beneficiaries on the basis of proxies which are assumed to be distributed

among the beneficiaries in the same proportion. Such an approach makes the results of studies on the distributional impact of government expenditures dependent upon the particular assumption or formulas employed by the individual researcher.

After the extent of benefits enjoyed by the various socio-economic units has been estimated, the next aspect is the allocation of benefits among the various income-groups specified in the study. Allocators (which are variables used in the distribution of the benefits among the income-groups) are often the income distribution series obtained from household budget surveys. For example, in distributing the benefits from expenditure in agriculture, if twenty percent of farmers in a survey belong to a particular income-group, exactly twenty percent of the benefits are allocated to that income-group. The use of income distribution series as allocators are criticised on the ground that they merely reflect the distribution of income of families for that particular year of the survey. Family incomes are affected in any particular year by transitory factors such as good or bad harvest, temporary unemployment, windfall gains or losses, etc.<sup>3</sup>

These transitory factors distort the income positions of families and statistics obtained are likely to affect the result of the study. It has therefore been suggested that a more appropriate concept of income for distribution of benefits should be permanent income, a concept popularly associated with Milton Friedman.

Another great objection to the use of income distribution statistics from budget survey in the allocation of benefits from government expenditures is the conceptual assumption that such statistics provide a true reflection of the exact proportion of the benefits to be allocated to particular income-groups. Using the earlier example, that twenty percent of the farmers belong to a particular income-group does not necessarily mean that twenty percent of the benefits from agricultural expenditure benefited them. To avoid this problem, it has been suggested that specific surveys which show the distribution of beneficiaries of government services identified by income-groups are more appropriate for allocating benefits from government expenditures.

As far as benefits from general services expenditure are concerned, the allocation requires special consideration because this category of government expenditures is on "collective goods" which "all enjoy in common in the sense that each individual consumption of such a good leads to no subtraction from any other individual's consumption of that good".<sup>4</sup> There is therefore no consensus as to the proper method of allocation among income-groups. Various allocation assumptions are adopted. One argument is that collective goods are available equally to all and therefore each person or each household is benefitting to the same extent.<sup>5</sup> Another argument advanced is that, collective goods may be available to all but benefits do not accrue to all individuals or households in equal proportion.<sup>6</sup> For example, defence expenditures protect not only citizens but also their properties from dangers and insecure borders. Thus, this argument leads one to allocate larger share of benefits of collective goods to the richer segment of the population than the poorer segment. Another argument is that expenditure on defence aims at securing a congenial environment for independent production activity. Based on this hypothesis more productive citizens would therefore enjoy a larger share of the benefits derived from collective goods

than less productive ones. Another argument is that benefits from such expenditures should be allocated according to wealth rather than according to income. Each of these arguments leads to a different set of allocation formulae. To resolve this issue, Aaron and Mcquire,<sup>7</sup> presented a method of imputing the value of benefits from collective goods to households. According to them, the estimation of benefits from government expenditures implies certain implicit utility functions applicable at least on the average. Assuming the existence of the form of a utility function, they showed that each household should be imputed a fraction of the total value of the collective good, proportional to the reciprocal of its marginal utility of private good expenditure. Thus, an estimate of income value to each household of collective good is given by

$$y_p^i = y_p \frac{1}{f_p^i} \quad \dots\dots (1)$$

where  $y_p^i$  is public good income of household  $i$   
 $y_p$  is the total collective good income to be allocated.  
 $f_p^i$  is the marginal utility schedule for each household.

The implication of this model is that the shape of the utility function determines the method of distribution of benefits among households.

Assuming a logarithmic utility function  $u^i =$

$$A \log (Y_D^i + Y_S^i) + B \dots\dots (ii)$$

where A and B are arbitrary constants,  $Y_D^i$  is disposable money income of household i  $Y_S^i$  is government supplied specific good income of household i.

$$\text{Marginal Utility } \frac{du^i}{d(Y_D^i + Y_S^i)} = \frac{A}{(Y_D^i + Y_S^i)} \dots\dots (iii)$$

Substituting in equation (i)

$$Y_P^i = Y_P \frac{(Y_D^i + Y_S^i)}{A} \dots\dots (iv)$$

Thus total utility rises with income and  $Y_P$  should be allocated in direct proportion to household income.

Alternatively, assuming a hyperbolic utility function.

$$U^i = E \frac{C}{(Y_D^i + Y_S^i)} \dots\dots\dots (v)$$

where C and E are arbitrary constants

$$\text{Marginal Utility } \frac{dU^i}{d(Y_D^i + Y_S^i)} = \frac{-EC}{(Y_D^i + Y_S^i)^2} \dots\dots (vi)$$

$$Y_P^i = Y_P (Y_D^i + Y_S^i)^2$$

and the distribution criteria becomes

$$Y_P^i = (Y_D^i + Y_S^i)^2$$



The basic criticism of this approach is that to estimate the income value of the collective good to be allocated to each household, one must specify the marginal utility schedule for each household. Each set of utility functions lead to a different result. Maital<sup>8</sup> in an attempt to resolve the ambiguity in the above approach, used three identical and independent methods to measure the required utility function for United States. His estimated utility function of -1.5 coincided with that of others. When the particular value of the form of utility function has been estimated, it can be used to estimate the benefits from collective goods among households.

However, Wulf<sup>9</sup> has shown that different estimates of the value of the utility function leads to different distributional implications. Similar criticism was expressed by Brennam.<sup>10</sup> The fact that the proper method of allocation free of criticism has not been obtained has led researchers to allocate benefits from expenditures on general services on the basis of several criteria.

### 3.2 A Survey of Studies of Expenditure Incidence

This section surveys the literature of studies which have attempted to measure expenditure incidence, by discussing the approaches which the researchers have adopted in treating some of the problems discussed in the previous section of this chapter.

<sup>11</sup> Gillespie estimated the redistributive impact of both sides of the budget in United States by using 1960 budget data. His study has become the most celebrated because it broke the ground on the possibility of estimating expenditure incidence. His methodology has generally been adopted by other researchers estimating expenditure incidence. He simply valued benefits of government expenditures at production cost. In the allocation of benefits, expenditures on goods and services that were traceable to the beneficiaries were allocated to the direct beneficiaries. Where clearly delineated beneficiary group not identifiable, allocation was based on assumptions about benefit shifting. For an example, the total expenditure on transportation was allocated proportionately to "consumers of transported products" and "consumers of passenger travel". The benefits allocated among beneficiaries were further allocated among income groups of beneficiaries by using various income distribution series.<sup>12</sup> This method of allocating

benefits among income-groups implies that benefits of government expenditures are distributed according to the income of beneficiaries. General expenditures like defence expenditures were regarded as indivisible or unidentifiable by specific groups and as a result four alternative assumptions were used to allocate the benefits among income groups. Specifically, these expenditures were distributed:

- i) Equally per family;
- ii) Similarly as income;
- iii) Similarly as capital income and
- iv) Similarly as disposable income.

The overall result of the study showed that fiscal incidence for the entire budget was generally progressive (pro-poor) at the federal, state and local government levels, but larger benefits were granted to the lower income group at the state and local government levels than at the federal.

In the most recent study of the United States, Ruggles and O'Higgins<sup>13</sup> allocated 1970 budget figures using essentially Gillespie's methodology except the method of allocating benefits among income groups. Unlike Gillespie who used the income distribution series of beneficiaries in

allocating benefits among income groups, they used data obtained from a survey of public use of government services known as "public use sample 1970". Despite the difference in the data used in allocating benefits among income groups, the overall results showed similar pattern of distribution of benefits as that of Gillespie's study.

In the United Kingdom, the Central Statistical Office (CSO) has been carrying out expenditure incidence studies annually for the past twenty years or so. These studies and related papers by Nicholson<sup>14</sup> the initiator of the CSO studies, and Barna,<sup>15</sup> constitute almost all the empirical work on this subject in the United Kingdom. These studies generally analyzed less than fifty percent of government expenditures consisting mainly of social services expenditure which were regarded as allocable expenditures. Other categories of government expenditures were not analysed because they felt that benefits cannot be traced to their direct beneficiaries. These researchers like Gillespie, allocated benefits among income groups on the basis of income distribution series of beneficiaries. The results of these studies showed progressive patterns of distributional impact of government expenditures.

Foxley, Aninat and Arellano<sup>16</sup> estimated the incidence effects of government expenditures for Chile. The study also focussed on the redistribution policy of the government in terms of target groups consisting of the poorest thirty percent of the population. Rather than allocate broad categories of government expenditures, their approach involved estimating the incidence effects of various government programmes by analysing about one hundred and forty expenditure items. In other words, a disaggregated approach of estimating the incidence of government expenditure was adopted. This disaggregated approach was expected to increase the quality of the result of the study because analysis of broad categories of expenditures normally concealed a number of distributional aspects which minute allocation can focus on.

Gupta<sup>17</sup> estimated the incidence of India's Central Government expenditures for 1973/74 fiscal year. He analysed only allocable expenditures consisting of about seven-tenths of the total central government expenditures among two income-groups, the poor and the non-poor by making several assumptions about impact. His study focussed only on two income groups because his major concern was to determine the direction of distribution which according to him was equally useful for policy action as a study that focussed on numerous

income-groups. The main conclusion was that the poor did not benefit from central government expenditures in India.

Snodgrass<sup>18</sup> estimated the redistribution of expenditure between income-groups, races and regions in Malaysia by using 1958 and 1968 budget figures. His inter-temporal approach in determining redistribution is conceptually better than incidence studies for a single year. Equally significant is that his study did not focus on the redistribution among income-groups alone as typical of most studies but it also estimated the redistribution between races, and regions. Such an approach which focussed on other dimensions of impact are more useful for policy action than a study that concentrates on one dimension.

Meerman<sup>19</sup> in a more recent study for Malaysia did not value the benefits from government expenditure at production cost as common with similar studies. Rather, he carried out a survey whereby he estimated the average cost of providing the various kinds of social services which he charged to the recipient households. Meerman, analyzed only social services expenditure because he felt that only such expenditures can be traced to their direct beneficiaries and that the beneficiaries of other categories

of expenditure cannot be traced. In these cases, the manner of their impact cannot be determined. General services expenditures were equally not analyzed because according to him they are public overhead expenditures. In allocating benefits among income-groups, a specific survey was conducted to determine the extent to which households benefit from government services, an approach which is superior to the one which uses income distribution series as assumed beneficiaries.

Selowsky<sup>20</sup> in his study of Colombia concentrated primarily on the redistribution between income groups and regions by analysing mainly social services expenditures whose consumption he considered can be identified by households and measured. He also did not value benefits at production cost like most researchers in this field but estimated the subsidy received by households from consuming government provided services. This approach favours largely government services which are subsidized. Allocation of benefits was based on a specific survey of the beneficiaries of government services by income-groups, an approach more favoured by recent reserchers in the field.

Odufalu<sup>21</sup> used the "money flow" approach to allocate federal government consumption expenditures in Nigeria for the 1975/76 fiscal year and focussed on the redistribution between income-groups and regional/ethnic. Using employment creation as a redistributive device, his study showed that federal government current expenditures "offered the largest employment opportunities to the income-group that was most seriously hit by unemployment". However, the distribution of the total benefits from government expenditures was in favour of the highest paid officials. The distribution of benefits from investment expenditures was reported to follow the same pattern as that of consumption expenditures except agriculture expenditure which benefitted the low income-group. While this pioneering study is quite commendable, the present one used the benefit approach to allocate benefits. This in line with recent studies in this area allocates benefits among income-groups on the basis of a specific survey conducted for the purpose. These methodological changes reflected in the present study are expected to yield more reliable results for policy action.



FOOTNOTES

1. Luc De Wulf, "Incidence of Budgetary Outlays: Where Do We Go From Here", Public Finance/ Finance Publiques, 1981, pp. 67 and 68.
2. J. Burkhead and J. Miner, Public Expenditure, Aldine Atherton Inc., Chicago, 1971, p. 326.
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5. F. Mehran, Distribution of Benefits From Public Consumption Expenditures Among Households In Iran (World Employment Working Paper, ILO), July, 1977, p. 30.
6. Ibid, p. 30.
7. H. Aaron and M. McGuire, "Public Goods and Income Distribution", Econometrica, Vol. 38, 1970.
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10. G. Brennam, "The Distributional Implications of Public Goods", Econometrica, March, 1976, pp. 391 - 399.

11. W. Gillespie, "The Incidence of Taxes and Public Expenditures on Income Distribution" in Richard Musgrave (eds.) Essays in Fiscal Federation, The Brooking Institution, 1965.
12. Income distribution series were the size distribution of income of socio-economic units used in the allocation of benefits of government expenditures among income groups.
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14. J. Nicholson, Redistribution of Income in United Kingdom in 1959, 1957 and 1953, Bowes and Bowes: Cambridge, 1974.
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16. A. Foxley et al, Who Benefits From Government Expenditures, World Employment Programme Research Working Paper, ILO, 1976.
17. P. Gupta, Incidence of Central Government Expenditure In India, World Employment Programme Research Working Paper, ILO, August 1975.

18. Donald Snodgrass, "The Fiscal System as an Income Redistributor In West Malaysia", Public Finance, Vol. 29, 1974, pp. 56-76.
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21. O. Odufalu, " The Distributive Impact of Public Expenditures in Nigeria" in H. Bienne and V.P. Diejomah (Eds.), The Political Economy of Income Distribution in Nigeria, N.Y. Holmes and Meier Inc; 1981.

## CHAPTER FOUR

### METHODOLOGY OF THE STUDY

In this chapter, the general aspects of how the impact of government expenditure on income distribution in Nigeria was estimated are outlined. The methodology outlined here has largely been influenced by the criticism of the methodology of measuring expenditure incidence and the approaches adopted by researchers in treating some of the problems in their study, discussed in the previous chapter.

#### i) Valuation of Benefits

In this study, the benefits from government expenditures were valued at production cost. This approach was adopted as there was no alternative method of valuation suitable for analysis. Another reason for using this approach was that it was the same procedure used in the compilation of national income accounts.

Estimates of the benefits were obtained by studying the cost of executing each programme as published in government documents like the Progress Report of various Development Plans and the Recurrent and Capital estimates of the government for the year of analysis.

#### ii) Identification of Beneficiaries:

The "benefit approach" has been used in this study in identifying the ultimate beneficiary of government-provided goods and services. This approach has been adopted because it is superior to the "money flow" approach.

iii) Allocation of Benefits:

For the purpose of allocating benefits, current and capital expenditures were treated differently. The current expenditures of the various programmes for the year of analysis were allocated to the ultimate beneficiaries. In the case of expenditures on capital projects, the benefits of which accrue several years in the future, a fraction of the total benefits discounted over the life of the project was allocated among the beneficiaries. Assuming that the present value of benefits of a capital project is  $N(x)$ .

$$N(x) = \frac{a}{1+r} + \frac{a}{(1+r)^2} + \dots + \frac{a}{(1+r)^t}$$

where  $a$  is the annual stream of benefits assumed to be constant.

$r$  is the discount rate

$t$  is the life span of the project

$$\begin{aligned} N(x) &= \sum_{t=1}^n \frac{a}{(1+r)^t} \\ &= a \frac{1}{r} \left( 1 - \frac{1}{(1+r)^n} \right) \end{aligned}$$

$$\text{then } a = \frac{r}{1 - (1+r)^{-n}} N(x)$$

The value " $a$ " becomes the fraction of benefits of the project allocated among the beneficiaries.

In estimating the value "a", a discount rate of 7% was used because it is the rate used for major capital expenditures in Nigeria. A life expectancy of fifteen years was assumed for the capital projects as this is the normal practice.<sup>1</sup> The reason for adopting fifteen years life expectancy is that, for most capital projects exceeding that period, the operating and maintenance costs become exceedingly high.

(iv) Allocation Among Income Groups:

The focus of this study is to estimate the distributional impact of government expenditures among income-groups. In the language of the model presented in Chapter 2, the basic measure therefore is

$$\sum_{i=1}^f \sum_{k=1}^m B_{k1}^G Q_{k1}^G$$

For each expenditure category analysed, this term requires estimating the proportion of the benefits which accrue to each income-group. The benefits which accrued to each income-group was estimated from a survey conducted for the purpose. The survey was designed to obtain the following information from each expenditure category analyzed:-

- a) The average value of the benefits enjoyed by each individual in each income-group, i.e.  $B_{k1}^G Q_{k1}^G$

- b) The total number of people in each income-group.

From (a) and (b) above, allocators<sup>2</sup> were obtained which were used to estimate the distribution of benefits among the income-groups. Details of the survey and its results are the subject of Chapter 7 of this thesis.

In the allocation of benefits of general services where no acceptable method of allocation exists, benefits were allocated according to income. This is the most popular criterion of allocation in similar studies.

#### 4.3 Data Sources And Analysis

Federal Government actual current and capital expenditures were obtained from "Accountant General's Report" published by the Ministry of Finance, "The Progress Report" of National Development Plan published by the Ministry of Economic Development and Reconstruction and "Recurrent and Capital Estimates of the Government of the Federal Republic of Nigeria".

Data used in allocating benefits of government expenditures among the various income-groups were obtained from a survey

conducted for the purpose. The questionnaire approach was used to obtain information on education while the interview and questionnaire methods were used in obtaining information on health, housing and electricity.

In analyzing the data, the study used regression analysis, coefficient of variation, ratio and Lorenz curves. Tables and diagrams were used in the presentation of data.



FOOTNOTES

1. This information was based on an interview held with a government official handling capital projects in Nigeria.
2. Allocators are proportions of benefits enjoyed by income-groups which were estimated from the survey.

CHAPTER FIVEFEDERAL GOVERNMENT EXPENDITURE  
IN PERSPECTIVE

In this chapter, the Nigerian Federal Government expenditure is put in a theoretical perspective by examining its growth and structure. Although government expenditure has been playing an increasing role in the national economy of many countries, not much work was done in this area until Wagner's hypothesis that the ratio of government expenditure to GNP should expand as economic growth proceeds. Wagner's hypothesis which was based on historical facts attributed this phenomenon to the tendency for the activities of government to increase both intensively and extensively. Both Thorn<sup>1</sup> and Enweze<sup>2</sup> in their studies of government expenditures based on time-series data found a positive relationship between the ratio of central government expenditure and per-capita national product. While Thorn found <sup>that</sup> /social services expenditure was responsible for the rising ratio of government expenditure to GNP, Enweze found that the rising ratio was not associated with any functional component of government expenditure. In this chapter, the following two hypotheses are tested:

(i) That the ratio of government expenditure to GNP rises as economic growth proceeds.

- (ii) That the share of social services expenditure in total expenditure rises faster than other functional components of government expenditures.

From an analysis of government expenditures, an idea about its impact on income distribution can be obtained. This is because, the rising ratio of government expenditure means that government has greater scope to effect changes in income distribution. Also, larger expenditure in social services relative to expenditures in other functional categories are indications of the government direct contributions to income redistribution since the benefits of social services expenditure are expected to contribute more to the income of the lower income-groups than to that of the higher income-groups.

This chapter consists of five sections. In section one, the size of the government sector is examined. In section two, the structure of government expenditures is discussed. The contribution of Federal Government expenditures to personal income is discussed in section three. Federal Government expenditure per-capita is the subject of section four. A summary of the results and conclusions based on the preliminary study constitute the focus of section five.

### 5.1 Size of the Government Sector:

As can be seen from Table 5.1, Federal Government's total expenditures at current prices rose from ₦144.5m in the 1959/60 fiscal year to ₦10,141m in 1979/80 fiscal year, an increase of seventy-fold. But when the size of the government sector is measured by

the ratio of Federal Government expenditure to GNP at current prices as shown in Table 5.2, it can be seen that the size of the government sector rose from 6.0 percent to 33.7 percent in the same period. The annual increase in the size of the government sector was continuous except for the 1961/62 and 1973/74 fiscal years when the size fell to 5.9 percent and 10.8 percent respectively. The general increase in the size of the government sector over the years is in conformity with the results of similar studies for other countries.<sup>3</sup> The increasing size of the government sector is an indication that government participation in the allocation of resources in the economy has been on the increase.

But a closer look at Table 5.2 shows that between the 1959/60 and 1974/75 fiscal years, the size of the government sector was generally less than 20 percent. As from 1975/76 fiscal year, the size rose sharply to 30.4 percent and it has remained generally high except in the 1978/79 fiscal year when it fell to 24.6 percent.

An attempt to compare the size of the Nigerian government sector with that of other countries is difficult in the absence of the results of studies for other countries computed for the same year as the present study. This apart, while the size of the government sector of some countries was obtained by considering all the level of governments, others were based on the central government. The 1979/80 size of Nigeria's government sector of 33.7 percent compares favourably with that of the United States of 33.0 percent for the 1974 fiscal year but much lower than the 1971 share for the United Kingdom of 36.4 percent,

Table 5.1: FEDERAL GOVERNMENT CURRENT AND CAPITAL  
EXPENDITURES 1959/60 - 1979/80

YEAR	CURRENT EXPENDITURE		CAPITAL EXPENDITURE		TOTAL EXPENDITURE
	% of Total	N' mill.	% of Total	N'mill.	N' mill.
1959/60	50.1	72.4	49.9	72.1	144.5
1960/61	44.5	79.7	55.5	99.3	179.0
1961/62	53.6	86.8	46.4	75.0	161.8
1962/63	68.4	195.1	31.6	90.0	285.0
1963/64	62.4	197.4	37.6	119.2	316.6
1964/65	68.2	249.3	31.8	116.4	365.7
1965/66	70.4	280.2	29.6	118.0	398.2
1966/67	68.1	281.3	31.9	131.9	413.2
1967/68	63.3	278.4	36.7	161.3	439.7
1968/69	65.4	323.8	34.6	171.5	495.3
1969/70	79.0	662.2	21.0	175.0	837.2
1970/71	84.7	773.6	15.3	136.0	913.4
1971/72	64.4	665.7	35.6	368.7	1,034.4
1972/73	68.6	1,213.1	31.4	554.2	1,767.3
1973/74	49.6	755	50.4	767	1,522.0
1974/75	36.4	1,059	63.4	1,850	2,908.0
1975/76	34.6	2,220	65.4	4,199	6,419.0
1976/77	27.7	2,040	72.3	5,332	7,372.0
1977/78	30.4	2,598	69.6	5,939	8,537.0
1978/79	37.4	2,592	62.6	4,326	6,918.0
1979/80	28.5	2,890	71.5	7,251	10,140.0

Computed from Appendix A.1

France 36.6 percent, Germany 36.7 percent, Canada 36.2 percent and Sweden 44.7 percent.<sup>4</sup> When the size of Nigeria's government sector is compared with that of other developing countries, it is found that the size of 14.5 percent for 1971/72 compares with the size of 14.6 percent for Korea in 1961, 14.2 percent for Tanzania in 1964 and 14.2 percent for Thailand in 1964. Also, Nigeria's size of 28.7 percent in 1976/77 compares with the size of 28.6 percent for Ceylon in 1963, and 29.4 percent for Guyana in 1965.<sup>5</sup>

## 5.2 Structure of Federal Government Expenditure

The structure of government expenditure is now considered by examining the current and capital expenditures and functional components of expenditures separately.

### 5.2.1 Current and Capital Expenditures

A look at Table 5.1 shows that between 1959/60 and 1972/73 fiscal years, the share of current expenditures in total expenditures was generally higher than that of capital expenditures, averaging 65 percent for this period and reaching a peak of 84.7 percent in the 1970/71 fiscal year. As from 1973/74 fiscal year, the situation changed and the share of capital expenditure has since been rising while that of current expenditure has been declining. From this period, the share of capital expenditure rose from 50.4 percent reaching a peak of 71.5 percent in the 1979/80 fiscal year. This structure shows that in the first fourteen years of this period under review, government devoted much of its expenditures for recurrent purposes. The huge capital expenditures in the last 7 years depicted increase

TABLE 5.2SHARE OF FEDERAL GOVERNMENT EXPENDITURES AS  
PERCENTAGE OF GNP

YEAR	CURRENT/GNP	CAPITAL/GNP	G/GNP
1959/60	3.0	3.0	6.0
1960/61	3.2	3.9	7.1
1961/62	3.1	2.8	5.9
1962/63	6.7	3.1	9.8
1963/64	6.4	3.9	10.3
1964/65	7.9	3.5	11.4
1965/66	8.2	3.4	11.6
1966/67	9.7	5.6	15.3
1967/68	10.1	5.8	15.9
1968/69	8.7	4.8	13.5
1969/70	12.4	3.2	15.6
1970/71	11.5	2.1	13.6
1971/72	9.3	5.2	14.5
1972/73	14.8	6.7	21.5
1973/74	5.4	5.4	10.8
1974/75	6.5	11.2	17.7
1975/76	10.5	19.9	30.4
1976/77	7.9	20.8	28.7
1977/78	9.4	21.4	30.8
1978/79	9.2	15.5	24.7
1979/80	9.6	24.1	33.7

Computed from Appendix A.1

in capital formation. Table 5.2 shows the ratios of current and capital expenditure in GNP.

#### 5.2.2 Functional Components:

As can be seen from Table 5.3, the proportionate share of expenditures on general services in total expenditures averaged 27 percent in the first decade of the review period. There was a sharp rise from 18.4 percent in the 1966/67 fiscal year to 35.9 percent in 1967/68. This high percentage share was maintained till the 1970/71 fiscal year when it started to decline till date except for the 1973/74 when it rose to 50.5 percent. The high percentage share of general services expenditures in total expenditures during the 1967/68 - 1970/71 fiscal years was due to large expenditures on defence used to prosecute the civil war. The relatively high percentage share recorded for subsequent years was due to the huge cost of maintaining the army and the rising share of public administration consequent upon the creation of states.

The ratio of expenditures in social and community services sector in total expenditures did not exhibit a uniform pattern. Generally, this ratio was falling, recording its lowest level of 2.3 percent in 1969/70, the last of the war years. This low level was maintained till 1973/74 when it recorded 5.7 percent. The ratio which rose to 20.6 percent in 1974/75, started to exhibit a declining trend from 1977/78 after attaining its highest level of 25.3 percent in the 1976/77 fiscal year. A closer look at expenditures on education and health, the major components of expenditures in social and community services reveal that



TABLE 5.3

FUNCTIONAL SHARE OF FEDERAL GOVERNMENT EXPENDITURE (CURRENT AND CAPITAL) AS  
PERCENTAGE OF TOTAL EXPENDITURE 1959/60 - 1979/80

FUNCTION	1959/60	1960/61	1961/62	1962/63	1963/64	1964/65	1965/66	1966/67	1967/68	1968/69
General Services	27.0	26.4	32.1	20.5	22.2	23.8	22.3	18.4	35.9	43.7
Social and Community Services	24.6	17.3	21.4	10.9	7.8	10.4	9.3	11.1	7.3	6.6
Education	7.7	6.2	8.8	5.5	3.3	5.1	3.2	6.6	3.1	4.2
Health	3.8	2.6	5.0	3.6	3.6	3.5	3.5	3.1	3.2	1.4
Other Social and Community Services	13.1	8.5	7.6	1.8	0.9	1.8	2.6	1.4	0.9	1.0
Economic Services	29.9	31.9	15.9	12.5	11.2	20.8	15.7	16.9	13.0	6.7
Unallocated	18.5	25.2	13.6	52.7	57.5	54.6	47.6	54.8	40.0	36.7
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 5.3 (Cont'd)

FUNCTION	1969/70	1970/71	1971/72	1972/73	1973/74	1974/75	1975/76	1976/77	1977/78	1978/79	1979/80
General Services	52.3	44.4	33.1	33.3	50.5	35.0	35.7	27.9	27.4	28.7	22.7
Social and Community Services	2.3	2.6	10.5	4.0	5.7	20.6	21.6	25.3	15.4	15.9	14.5
Education	0.8	0.3	5.2	1.5	2.8	10.6	16.3	15.8	6.5	6.9	7.5
Health	1.4	0.7	1.6	2.0	2.0	1.4	1.7	2.0	1.8	1.7	1.7
Other Social and Community Services	0.1	1.6	3.7	0.5	0.9	8.6	3.6	7.5	7.1	7.3	5.3
Economic Services	6.7	7.3	21.5	17.1	22.4	26.5	26.6	33.1	43.2	37.5	46.3
Unallocated	38.7	45.6	34.9	45.6	21.8	17.8	16.1	8.7	14.0	17.7	18.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Computed from Appendix A.1

TABLE 5.4

FEDERAL GOVERNMENT EXPENDITURE (CURRENT AND CAPITAL) AS PERCENTAGE  
OF GNP 1959/60 - 1979/80

FUNCTION	1959/60	1960/61	1961/62	1962/63	1963/64	1964/65	1965/66	1966/67	1967/68	1968/69
General Services	1.6	1.9	1.9	2.0	2.3	2.7	2.6	2.6	5.7	5.9
Social and Community Services	1.5	1.2	1.2	1.1	0.8	1.2	1.1	1.6	1.2	0.9
Education	0.5	0.4	0.5	0.5	0.3	0.6	0.4	0.9	0.5	0.6
Health	0.2	0.2	0.3	0.4	0.4	0.4	0.4	0.4	0.6	0.7
Other Social and Community Services	0.8	0.6	0.4	0.3	0.1	0.2	0.3	0.3	0.1	0.1
Economic Services	1.3	2.2	1.9	1.5	1.3	1.3	2.4	2.3	2.7	1.7
Unallocated	1.1	1.8	0.8	5.2	5.9	6.2	5.5	7.8	6.3	4.9
TOTAL	6.0	7.1	5.9	9.8	10.3	11.4	11.6	14.3	15.9	13.4

TABLE 5.4 (Cont'd)

FUNCTION	1969/70	1970/71	1971/72	1972/73	1973/74	1974/75	1975/76	1976/77	1977/78	1978/79	1979/80
General Services	8.2	6.0	4.8	7.1	5.5	6.2	10.8	8.0	8.4	7.1	7.7
Social and Community Services	0.4	0.4	1.5	0.9	0.6	3.7	6.6	7.3	4.8	3.9	4.9
Education	0.1	0.1	0.8	0.3	0.3	1.9	5.0	4.5	2.0	1.7	2.5
Health	*	0.1	0.2	0.4	0.2	0.3	0.5	0.6	0.6	0.4	0.6
Other Social and Community Services	*	0.2	0.5	0.5	0.1	1.5	1.1	2.2	2.2	1.8	1.8
Economic Services	1.0	1.0	3.1	3.7	2.4	4.7	8.1	10.9	13.3	9.2	15.6
Unallocated	6.0	6.2	5.1	9.3	2.3	3.1	4.9	2.5	4.3	4.4	5.5
TOTAL	15.6	13.6	14.5	21.5	10.2	17.7	30.4	28.7	30.8	24.6	33.7

\* Less than 0.1

Computed from Appendix A.1

their ratios exhibited the same pattern as the ratio of social and community services expenditures, although expenditures for education were generally higher than expenditures for health.

With regard to the hypothesis that the share of expenditures in social and community services in total expenditures rises faster than other components as per-capita income increases, it was found that there was no tendency for it to grow faster than the average of other government expenditures. This result does not corroborate the results of similar studies by Thorn<sup>6</sup> and Musgrave<sup>7</sup> to mention a few which found that the share of social and community services expenditures in total expenditures will tend to rise faster than the average of other government expenditures. The major reason for this result is that in the constitution, the states and local governments are responsible for social services.

The ratio of economic services expenditures exhibited a general downward trend from the 1959/60 fiscal year when it was 29.9 percent till the 1969/79 fiscal year when it attained its lowest level of 6.7 percent. After the war years, the ratio started to rise attaining its highest level of 46.3 percent in 1979/80 fiscal year. The recent rising trend is due to the heavy capital investments in transportation, communications, agriculture and industry particularly the iron and steel industry.

Unallocated expenditures' share in total expenditures make up mainly of public debt servicing and non-statutory allocations to regional/state governments has been substantial over the years. Its relatively high share of 18.5 percent in 1959/60 fiscal year rose to 57.5 percent in 1963/64 before exhibiting a declining trend, attaining its lowest level of 0.7 percent in the 1976/77 year. In the last three fiscal years of this review, the share has risen averaging about 15 percent.

### 5.2.3 Changing Composition of Government Expenditures:

In Table 5.3, it can be observed that there had been some structural changes in the functional shares of total expenditures over the years. Expenditures on general and economic services have largely dominated total expenditures but economic services expenditure assumed a leading role in the last four years of the review period. This structure in which the rising size of the government sector is associated with functional components of total expenditures does not corroborate the results of similar studies by Enweze,<sup>8</sup> Lall,<sup>9</sup> and Lotz,<sup>10</sup> which did not find any association between the structural components and the rising size of the government sector.

As regards to changes in the component parts of social and community services, Table 5.3 reveal that expenditures in education have generally been the dominant item. In the last five fiscal years of the

review period, expenditures on other social and community services made up mainly of expenditures for water supply, housing and town and country planning have been on the increase.

#### 5.2.4 Expenditure Elasticity:

Expenditure elasticity, a measure of the degree of responsiveness of expenditures to changes in GNP is estimated from time-series data using the logarithmic equation

$$\log E = a + b \log Y$$

where  $E$  = the government expenditure component  
and  $Y$  = GNP

This model is similar to the one used by Enweze in his study describing the growth of government expenditure component as a function of GNP.<sup>11</sup>

On the whole, a total of nine regression equations were computed. These were elasticities for total expenditures, current and capital expenditures, functional components, education, health and development services (comprising economic and social services expenditures combined). The results are presented in Table 5.5.

In general, the fit of the regression equations is quite good as can be seen from Table 5.5. The income elasticities of the various components of expenditures are greater than unity. Considering the three functional parts of government expenditures, economic services expenditure revealed the greatest income elasticity of 1.76. Next is social services expenditure with 1.62 income elasticity and current expenditure with the least

TABLE 5.5  
INCOME ELASTICITIES OF FEDERAL GOVERNMENT EXPENDITURES  
FOR THE PERIOD 1959/60-1979/80

DEPENDENT VARIABLE $E_i$	a	b	$R^2$	D-W	T-Statistics	
					a	b
Federal Government Expenditures (G)	-6.99 (0.62)	1.46 (0.69)	0.96	1.26	-1.73	21.07
Current Expenditures (CUR)	-4.18 (0.88)	1.18 (0.99)	0.88	0.77	-4.76	11.95
Capital Expenditures (CAP)	-9.16 (0.81)	1.72 (0.91)	0.95	1.24	-11.29	18.83
General Services (GS)	-7.69 (0.79)	1.52 (0.89)	0.94	0.66	-9.73	17.04
Social and Community Services (SOS)	-9.64 (1.42)	1.62 (0.16)	0.84	0.98	-6.81	10.14
Economic Services (ECN)	-10.19 (0.98)	1.76 (0.11)	0.93	1.06	-10.35	15.84
Education (EDC)	-11.3 (1.92)	1.72 (0.11)	0.77	1.20	-5.89	7.92
Health (HLT)	-7.26 (0.98)	1.73 (0.11)	0.85	1.22	-7.38	10.57
Development Services (DS)	-9.39 (1.07)	1.71 (0.12)	0.91	0.97	-8.75	14.18

Note: Terms in brackets are the standard error.



income elasticity of 1.18. These results indicate that a one percent increase in GNP will lead to a more than one percent increase in various components of expenditures.

### 5.3 Government Expenditures and Personal Income:

Personal income received by households from the government consists of three components: transfer payments, wages and salaries and interest payments. This category of expenditures represents government's direct contribution to personal income. Although indirect income is also generated by these expenditures, the effect cannot be easily analysed. In Table 5.6, the direct contributions of Federal Government expenditures to personal income and employment are presented. Federal Government contribution to personal income amounted to ₦68.9m in 1959/60 rising to ₦848.2m in 1976/77. The contribution of the Federal Government to personal income measured as a ratio of GNP, averaged 3.3 percent over the entire period for which data is available. The ratio was 4.9 percent in 1971/72 and 3.3 percent in 1976/77.

The ratio of government expenditure which goes to personal income measured by  $\frac{P}{G}$  percent was very high during the earlier years of this review period. This ratio has fallen considerably to 11.5 percent in 1976/77, an indication

TABLE 5.6

CONTRIBUTION OF FEDERAL GOVERNMENT TO  
EMPLOYMENT AND PERSONAL INCOME 1959/60- 1976/77

YEAR	E Mn.	P Mn.	$\frac{E}{G} \%$	$\frac{E}{GNP} \%$	$\frac{P}{G} \%$	$\frac{P}{GNP} \%$
1959/60	65.5	68.9	45.3	2.7	47.7	2.9
1960/61	72.8	76.5	40.7	2.8	42.7	3.0
1961/62	76.4	82.4	47.2	2.8	50.9	3.0
1962/63	50.7	59.6	17.8	1.7	20.9	2.1
1963/64	49.1	59.7	15.5	1.6	18.8	1.9
1964/65	61.9	74.9	16.9	1.9	20.5	2.3
1965/66	66.0	84.1	16.6	1.9	21.1	2.4
1966/67	76.4	97.8	18.5	2.6	23.7	3.4
1967/68	68.1	92.2	15.5	2.5	21.0	3.3
1968/69	105.7	146.9	21.3	2.9	19.7	4.0
1969/70	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1970/71	266.3	325.8	29.1	4.0	35.7	4.8
1971/72	289.9	346.8	28.0	4.1	33.5	4.9
1972/73	365.9	428.3	20.7	4.4	24.2	5.2
1973/74	364.5	441.2	23.9	2.6	23.0	3.1
1974/75	349.0	435.2	12.0	2.1	15.0	2.7
1975/76	719.5	789.9	11.2	3.4	12.3	3.7
1976/77	719.3	848.2	9.8	2.8	11.5	3.3

Sources: Data for Employment and Personal Income were obtained from Analyses of Government Accounts F.O.S. 1979, pp. 20 and 105.

Notes: E = Employment. It consists of wages and salary earnings from government expenditures.  
P = Personal Income and is defined to include transfer payments, wages and salary earnings from government expenditures and interest receipts.

G = Government Expenditure.

GNP = Gross National Product.

$\frac{E}{G} \%$ ,  $\frac{E}{GNP} \%$ ,  $\frac{P}{G} \%$ ,  $\frac{P}{GNP} \%$  were computed using Appendix A.1 and A.2.

n.a. = not available.

that much of government expenditures was spent on factor purchases and transfers in the earlier part of the review period unlike what it turned out to be at the later period. Of these contributions, certain percentages are returned to the public budget in the form of personal income taxes. These percentages are not determined because they are out of the scope of this study.

#### 5.4 Per-capita Government Expenditure:

Per-capita government expenditure is also calculated. This ratio is a rough measure which shows the amount of government expenditures which is expected to benefit each individual in the country for a given year. This ratio suffers from the same flaws as per-capita income. It does not give us the actual amount of benefits enjoyed by individuals but it is just a rough guide as to the level of government expenditure that is expected to benefit individuals.

In Table 5.7, per-capita government expenditures are presented. Expenditure per-capita rose from ₦2.8 in the 1959/60 fiscal year to ₦119.7 in the 1979/80 fiscal year an increase of forty-fold. This is a much lower increase when compared with income per-capita (presented in Appendix A.2), which rose from ₦46.5 to ₦355.5, an increase of about eighty-fold within the same period. When the ratio of expenditure per-capita

Table 5.7

PER-CAPITA FEDERAL GOVERNMENT EXPENDITURE  
(1959/60 - 1979/80)

<u>YEAR</u>	<u>PER-CAPITA IN NAIRA</u>
1959/60	2.8
1960/61	3.4
1961/62	3.0
1962/63	5.1
1963/64	6.3
1964/65	6.6
1965/66	6.6
1966/67	6.7
1967/68	7.0
1968/69	7.7
1969/70	12.6
1970/71	13.5
1971/72	14.9
1972/73	24.8
1973/74	20.8
1974/75	38.8
1975/76	83.5
1976/77	93.8
1977/78	106.0
1978/79	83.8
1979/80	119.7

Source: Computed from Appendix A.2.

to income per-capita is calculated, for the 1959/60 fiscal year, government expenditure per-capita amounted to only about  $1/16$  of per-capita income, while in the 1979/80 fiscal year it rose to about  $\frac{1}{3}$  of per-capita income. This is another indication of the growing size of government expenditure in GNP. For the 1971/72 fiscal year, government expenditure per-capita and per-capita income are ₦14.9 and ₦102.5 respectively, while they are ₦93.8 and ₦327.0 respectively for the 1976/77 fiscal year. The ratio of government expenditure per-capita to income per-capita is about  $1/7$  in the 1971/72 fiscal year, and about  $\frac{1}{4}$  in the 1976/77 fiscal year. If government expenditure per-capita are regarded as per-capita benefits, the rising ratio of government expenditure per-capita to income per-capita is an indication that benefits from government expenditures over the period constitute a rising proportion of personal income.

#### 5.5 Summary of Results and Conclusion

The results from this review are as follows:

1. The share of government expenditure in GNP is on the increase over the years. This result corresponds to the rising share hypothesis.
2. Current expenditures have largely dominated government expenditures for most of the years under review. However, the situation changed in the last seven years of the review period. Capital expenditures is now the dominant component.

3. Social and community services expenditures did not show any particular tendency to rise as a proportion of total government expenditures or GNP.
4. Education and Health expenditures, the major components of social and community services expenditures showed no similar tendency to rise as a proportion of total expenditures
5. In terms of functional components of government expenditures, economic services expenditure is the most dominant.
6. Government contributions to personal income and employment as proportions of total expenditures and GNP have declined over the years.
7. Government expenditure per-capita is on the increase over the review period and the benefits of government expenditure is constituting a rising proportion of personal income.
8. The income elasticities of various components of government expenditures estimated was greater than unity with economic services expenditure revealing the highest income elasticity of 1.76.

In conclusion, the growing size of the government sector indicates that government has increased its scope in effecting changes in income distribution through its expenditure policy. However, the structure of government expenditures indicates that social and community services expenditures are generally less significant in the budget. This means that much of government expenditures was devoted to expenditures which do not contribute directly to the immediate income of poor people. Since the benefits from this category of government expenditures is expected to constitute a greater proportion of the income of the lower income group than that of the higher income group, it is therefore reasonable to assume that Federal Government expenditures are regressive, that is pro-rich. Thus, Federal Government declared objective to reduce income inequality is unlikely to be achieved through its expenditure policy. In spite of this, the rising share of economic services expenditures and the relatively dominant share of capital expenditures in the latter years of the review period, indicate that Federal Government is concentrating on investments which are expected to generate future direct and indirect benefits to the various income-groups. The expected pattern of distribution among income-groups cannot be obtained from this analysis. This is why this conclusion is tentative and more reliable conclusion is expected to be obtained from an estimate of the distributional impact of government expenditure; which is taken up in /

FOOTNOTES

1. Richard Thorn, "The Evolution of Public Finance, During Economic Development", The Manchester School of Economic and Social Studies, 1967.
2. Cyril Enweze, "Structure of Public Expenditures in Selected Developing Countries: A Time-Series, Study", The Manchester School of Economic and Studies, 1973.
3. Richard Thorn, op. cit., Cyril Enweze, op. cit.
4. The sizes of the government sector for the United States, United Kingdom, France, Germany, Canada and Sweden used for comparison were obtained from Richard Musgrave and Peggy Musgrave, op. cit., p. 131.
5. The size of the government sector for developing countries used in this comparison were obtained from Cyril Enweze, op. cit., p. 435.
6. Richard Thorn, op. cit.,
7. Richard Musgrave and Peggy Musgrave, Public Finance, In Theory and Practice, McGraw Hill, New York, 1976.
8. Cyril Enweze, op. cit.
9. S. Lall, "A Note on Government Expenditure in Developing Countries", Economic Journal, June, 1969.



10. J.R. Lotz, "Patterns of Government Spending In Developing Countries", The Manchester School of Economic and Social Studies, Vol. 38, 1970.
11. Cyril Enweze, op. cit.

CHAPTER SIXTHE REGIONAL DISTRIBUTION OF FEDERAL GOVERNMENT  
EXPENDITURES IN NIGERIA

The impact of government expenditures on income distribution can be analysed from the perspective of regions.<sup>1</sup> A regional dimension is particularly important in Nigeria because the country operates a federal system of government and as such many government policies are aimed at even development of the regions. Regional imbalance in government per-capita expenditures give rise to regional disparities in economic and social opportunities which eventually worsen income inequality. The worsening of income inequality can be explained by the process referred to by Myrdal,<sup>2</sup> as "circular and cumulative causation". The proposition is that when divergence occurs between regions, social and economic forces tend to set in motion a chain of cumulative expansion in the favourable region at the expense of the other regions, which then become comparatively worse-off, thereby retarding their future development. Thus, in a situation where there is regional imbalance in income due to government expenditures, the tendency is for the favoured region to obtain "spread effects" through labour migration, capital investments and trade at the expense of the less favoured region. This process

leads to further disparities in income between the regions and worsen income inequality. This is why, an analysis of regional distribution of government expenditures is an important step towards understanding the income distributional implications of government expenditures.

This Chapter focusses on the regional distribution of government expenditures as distinct from the impact on regional income distribution of government expenditures. Put differently, the Chapter is focuses on the allocation of government expenditures by regions and not on the allocation of benefits from government expenditures by regions. While the regional distributional impact of benefits from government expenditures is worthwhile, this Chapter focuses on the regional distribution of government expenditures because it is the equitable distribution of government investment projects that has a longer effect on income distribution due to its capacity to create income.

In the first section of this Chapter, the regional distribution of Federal Government investment projects is examined. Section two is devoted to the regional distribution of current expenditures. Section Three discusses the regional distribution of Federal Government expenditures. In Section Four, the

implications of the regional distribution of government expenditures for income distribution are analysed.

#### 6.1 The Regional Distribution of Federal Government Capital Expenditures:

The regional distribution of Federal Government capital expenditures was obtained by allocating all expenditure items and projects in each government sector on the basis of the twelve states structure.<sup>3</sup> By this, the capital expenditure for agriculture was allocated among the States separately from capital expenditure for industries and so on. The overall regional distribution of Federal Government capital expenditure was obtained by summing up the various allocation by states.

In analysing the regional distribution of Federal Government capital expenditure, the "money-flow" approach was adopted. This means that the cost of capital projects was allocated to the state in which the project was physically situated. In certain cases where projects were located in more than one state, and the costs of such projects were lumped together, the "Progress Reports of the Second and Third National Development Plans" provided information used to determine the share of the total cost of such projects which was allocated to each state. These progress Reports contained a measure of the financial and physical performances of some projects for various fiscal years which facilitated

allocation among the states. In addition to the Progress Reports, the "Report of the Accountant General of the Federation" and the "Recurrent and Capital Estimates of the Federal Republic of Nigeria" for the relevant fiscal years, contained information about sizes of projects and the amounts disbursed in their various locations which facilitated allocation among the States. For projects where no information was available to facilitate allocation, even after an interview with the relevant ministry, the total cost of the project was simply shared equally among the various locations of the projects. As for road and highway expenditures, the ratio of the kilometers of road to the total that passed through each state was used to determine the proportion of the total cost of the road allocated to each state.

Certain expenditure items were not allocated because they were not amenable to regional allocation. Among such expenditure items were feasibility studies, research expenditures, purchases of aircrafts, naval ships and boats, locomotive engines and coaches. For a similar reason, expenditures on fuel and power and communications were not allocated. Also not allocated were expenditures on defence and security partly because a large proportion of such expenditures was for purchases of arms and ammunitions and partly because no sufficient information was available to facilitate regional allocation.

The detailed allocation of Federal Government capital expenditure item by item and project by project for 1971/72 and 1976/77 fiscal years are presented respectively in Appendices B.1 and B.2.

6.1.2 Summary Results of Regional Distribution of Federal Government Capital Expenditure:

The summary results of all expenditures allocated for 1971/72 and 1976/77 fiscal years are presented in Tables 6.1 and 6.2 respectively. A total amount of ₦103,082,756 and ₦1,883,502,498 were allocated for the 1971/72 and 1976/77 fiscal years respectively. Of these amounts ₦59,836,653 and ₦1,267,834,758 were allocated for economic services while ₦40,298,384 and ₦580,740 were allocated for social services.

Lagos State<sup>4</sup> had the highest allocation of ₦23,285,098 while North Western State had the least with ₦3,193,228 for the 1971/72 fiscal year. Lagos State also had the highest allocation of ₦339,952,230 for 1976/77 fiscal year while Kano State had the lowest with ₦67,109,921. With regard to functional categories of government expenditures, Lagos State had the highest allocation for both economic and social services in 1971/72 with the sum of ₦10,817,119 and ₦12,001,658 respectively. North Western State had the least allocation for economic services with ₦2,452,892 and Rivers State the least allocation for social services with only ₦510,471. For the 1976/77 fiscal year, Mid-Western State, topped the list for economic services

TABLE 6.1

## THE REGIONAL DISTRIBUTION OF FEDERAL GOVERNMENT CAPITAL EXPENDITURE 1971/72

SECTORS	B/P	E.C	KANO	KWARA	LACOS	M/W	N.C.	N.E.	N.W.	RIVERS	S.E.	W.N.	TOTAL
Agriculture	223,785	6,686	43,775		108,127	1,084,183	316,253	713,220	9,132	29,043	80,000	1,163,962	3,778,962
Mining	-	200,000	-	-	-	-	-	-	-	-	-	-	200,000
Industry	100,000	329,380	-	1,868,708	320,012	129,380	100,000	100,000	100,000	-	-	329,380	3,376,860
Commerce & Finance	-	-	-	-	9,292	-	-	-	-	-	-	-	9,292
Fuel and Power	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Transport	5,816,702	618,232	5,401,187	1,369,198	10,379,688	2,520,860	2,372,029	7,006,886	2,343,760	2,315,619	3,545,346	2,090,032	46,129,539
Communication	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Resettlement and Rehabilitation	-	1,585,500	-	-	-	1,585,500	-	-	-	1,585,500	1,585,500	-	6,342,000
Sub-Total	6,140,487	2,739,798	5,444,962	3,537,906	10,817,119	5,319,923	2,788,282	7,820,100	2,452,892	3,930,162	5,260,846	3,583,374	59,836,653

TABLE 6.1(Cont'd)

SECTOR	B/P	E.C.	KANO	KWARA	LAGOS	M/W	N.C.	N.E.	N.W.	RIVERS	S.E.	W.N.	TOTAL
Education	1,035,734	6,732,935	561,530	841,261	7,006,133	139,098	4,799,500	798,611	725,443	510,471	583,844	6,053,310	29,787,865
Health	-	-	-	-	2,747,365	-	2,666,666	-	-	-	-	2,666,666	8,080,697
Information.	-	-	-	-	-	-	-	-	-	-	-	-	-
Labour & social Welfare	-	14,718	6,000	-	1,905,844	6,000	6,000	6,000	-	-	-	-	1,958,280
Town and Country Planning	-	-	-	-	343,310	128,226	-	-	-	-	-	-	471,542
Water and Sewerage	-	-	-	-	-	-	-	-	-	-	-	-	-
Sub-Total	1,033,734	6,747,653	567,530	841,261	12,001,658	273,319	7,472,166	804,611	725,443	510,471	583,844	8,719,976	40,298,384
General Administration	317	20,624	34,750	317	466,317	317	2,362,733	7,447	14,893	20,000	20,000	-	2,947,719
Defence & Security	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Sub-Total	317	20,624	34,750	317	466,321	317	2,362,733	7,447	14,893	20,000	20,000	-	2,947,719
TOTAL	7,176,538	9,508,075	5,536,242	4,379,484	23,285,098	5,593,559	12,623,181	8,632,164	3,193,228	4,460,633	5,864,690	12,303,350	103,082,756

Note: N.A. = Not Allocated.



TABLE 6.2

THE REGIONAL DISTRIBUTION OF FEDERAL GOVERNMENT CAPITAL EXPENDITURE 1976/77

SECTORS	E/P	E.C.	KANO	KWARA	LAGOS	M/W	N.C.
Agriculture	2,941,265	6,283,408	3,804,993	7,499,077	1,270,481	4,430,456	14,386,955
Mining	1,342,834	11,864,250	581,750	1,246,500	354,250	-	931,083
Industry	1,256,307	17,622,830	1,625,323	23,671,400	380,500	199,960,828	107,725,500
Commerce and Finance	-	-	13,000	1,522,500	45,833,000	-	-
Co-operatives and Supply	-	-	-	-	-	-	500,000
Fuel and Power	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Transport	47,608,580	36,786,700	15,797,866	28,784,893	130,488,387	46,789,199	41,441,702
Communications	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
<b>Sub-Total</b>	<b>53,048,986</b>	<b>72,557,188</b>	<b>21,822,933</b>	<b>62,724,370</b>	<b>178,326,618</b>	<b>251,180,483</b>	<b>164,985,240</b>

TABLE 6.2 (Cont 'd)

SECTORS	N.E.	N.W.	RIVERS	C.E.	W.N.	TOTAL
Agriculture	60,563,330	32,621,103	1,070,306	1,348,367	8,194,422	144,323,163
Mining	390,083	-	17,456,000	-	354,250	34,521,000
Industry	8,150,807	1,836,857	41,377,000	32,101,828	13,558,535	449,036,015
Communication and Finance	1,022,500	1,022,500	-	1,022,500	13,000	50,449,000
Cooperatives and Supply	-	-	-	-	-	500,000
Fuel and Power	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Transport	8,842,848	65,743,362	4,322,800	23,522,071	65,877,172	589,005,580
Communications	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Sub-Total	151,969,568	101,223,822	64,226,106	57,994,766	87,996,379	1,267,834,758

TABLE 6.2 (Cont'd)

SECTORS	B/P	E.C.	KANO	KWARA	LAGOS	M/W	N.C.
Education	27,327,727	44,613,102	43,286,989	21,211,460	37,009,091	32,009,091	41,003,649
Health	-	3,414,000	-	-	5,473,000	3,000,000	5,600,000
Information	50,000	-	-	-	18,881,000	-	-
Labour	16,000	-	-	48,000	59,000	16,000	48,000
Social Development Youth and Sports	-	330,000	-	-	2,691,000	-	468,000
Water Supply	-	-	-	-	-	-	-
Sewerage Drainage and Refuse Disposal	-	-	-	-	-	-	-
Housing	-	1,484,624	2,000,000	-	89,298,146	-	1,596,505
Town and Country Planning	-	-	-	-	6,996,713	-	-
Community Development	-	-	-	-	-	-	-
Sub-Total	27,393,727	49,841,726	45,286,989	21,249,460	160,870,112	35,026,091	42,736,154
Defence and Security	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
General Administration	-	-	-	130,000	34,778,500	50,000	-
Sub-Total	-	-	-	130,000	34,778,500	50,000	-
Grand Total	80,442,713	22,393,914	67,109,921	83,103,830	339,952,230	286,256,574	213,721,393

TABLE 6.2 (Cont'd)

SECTORS	N.E	N.W.	RIVERS	C.E.	W.N.	TOTAL
Education	42,280,133	34,277,919	13,652,756	27,633,189	39,827,755	404,590,927
Health	-	-	15,445,000	-	10,353,000	43,285,000
Information	-	-	-	15,000	-	18,946,000
Labour	32,000	-	-	32,000	-	251,000
Social Development Youth and Sports	-	-	-	-	-	3,509,000
Water Supply	-	-	-	-	-	-
Sewerage Drainage and Refuse Disposal	-	-	-	-	-	-
Housing	3,450,000	2,042,154	500,000	-	2,210,151	102,966,094
Town and Country Planning	-	-	-	-	-	6,996,719
Development Community	-	-	-	-	-	-
Sub-Total	<u>45,762,133</u>	<u>36,314,073</u>	<u>29,597,756</u>	<u>27,680,189</u>	<u>52,390,906</u>	<u>580,544,740</u>
Defence and Security	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
General Administration	-	138,000	-	-	-	35,123,000
Sub-Total	-	138,000	-	-	-	35,123,000
Grand Total	<u>197,731,701</u>	<u>137,675,895</u>	<u>93,823,862</u>	<u>85,674,955</u>	<u>140,387,283</u>	<u>1,833,502,498</u>

N.A. = Not Allocated.

with a total amount of ₦251,130,483 while Kano State had the lowest with ₦21,322,932. In the case of social services, Lagos again has the highest allocation with ₦160,870,112 with Kwara State having the least allocation of ₦21, 249,460.

### 6.1.3 Nature of the Federal Government Capital Projects in the Regions:

The regional distribution of Federal Government capital expenditures as summarized in sub-section 6.1.2 above merely shows the regions to which budgetary allocations were made. This does not tell us much unless the nature of the Federal Government capital projects in the region is examined. Some projects are capital intensive, others are not. Also while some projects have diffuse effects on the entire economy, others have little economic impact. Consider an aerial survey project (A) say in region X and a sugar project (S) say in region Y. Project A requires sophisticated equipment and highly skilled technicians neither of which can be obtained in region X. Project S requires inputs readily available in region Y. Both projects are not likely to have the same economic impact in their respective regions. It is therefore pertinent to examine the nature of the Federal Government capital projects in the region in order to be able to comment on the regional distribution of economic activities and the potential effect on income distribution.

Tables 6.1 and 6.2 reveal that both in the 1971/72 and 1976/77 fiscal years, capital expenditures in agriculture, industry, transportation and education constituted the bulk of Federal Government capital expenditures allocated. A closer examination of the projects' distribution throughout the regions as presented in Appendices B.1 and B.2 provide us with the economic implications of the regional distribution of Federal Government capital expenditures. In the 1971/72 fiscal year, the Southern States had a larger distribution of Federal Government capital expenditures than the Northern States mainly because of the large expenditures for Oil Palm Quarters in the Mid-West State and Cocoa Research Development in Western State. In the 1976/77 fiscal year, the Northern States had larger distribution of Federal Government capital expenditures in agriculture than the Southern States because of large expenditures for irrigation and livestock development projects. While the projects in the Southern States consisted of purchases which have little effect on income, those in the Northern States involved infrastructural development in agriculture which enables agricultural production and productivity to be enhanced. It is therefore reasonable to expect that this pattern of capital expenditure would generate a greater income to the farmers of the Northern States than those of the Southern States.

Federal Government capital expenditures in industry was generally evenly distributed between the Northern and Southern States both in the 1971/72 and 1976/77 fiscal years. Expenditures in iron and steel industry in Kwara State in the 1971/72 fiscal year and expenditure for the oil refinery in Kaduna of the North Central State in the 1976/77 fiscal year were generally responsible for evening out the distribution of capital expenditures in industry between the Northern and Southern States. Much of the capital expenditures in industries was for the establishment of industries. The immediate impact on economic activities and personal income in the regions of location cannot be much because the expenditures were incurred mainly for the importation of machinery, construction equipment and payment of salaries and accommodation to highly skilled staff who handled the projects. These expenditures would largely improve the income positions of foreign countries and their nationals with little generation of income within the immediate locality where such projects are situated. Nevertheless, the locality is expected to obtain induced benefits and stemming benefits as a result of the location of such projects in the area.

The regional distribution of Federal Government capital expenditure on transportation is not likely to generate much income within the regions beyond the employment of unskilled labour needed during the construction period. Much of the expenditure goes to the foreign construction companies who are mainly the competent contractors handling such intricate construction projects. Nevertheless, the construction of roads is expected to facilitate the evacuation of agricultural products, reduce, transportation costs and time, as well as promote greater agricultural and commercial activities in the respective regions.

The regional distribution of capital expenditures in education is expected to generate much regional economic activities through the employment opportunities and commercial activities arising from the physical location of Federal education establishments in a region. In the 1971/72 fiscal year, the Southern States had the larger allocation of Federal Government capital expenditures in education than the Northern States. This was due to the disproportionate location of Federal Government educational institutions in the Southern States. In 1976/77 fiscal year, the imbalance in Federal capital expenditures had been considerably redressed as a result of the establishment of Federal Government institutions like Universities, Polytechnics, Colleges,



of education and Secondary Schools in States that previously had none. Some of these institutions particularly Universities, Polytechnics and Colleges of Education require high level manpower in administration and academics which cannot be wholly obtained from the region of location. This has necessitated movements of highly qualified personnel across regions to take up appointments. In particular, foreigners have to a large extent benefited from the employment opportunities created by the establishment of these institutions. The evening out in the distribution of these Federal educational institutions has helped to reduce the regional imbalance in the distribution of educational opportunities. It will also help in reducing regional inequalities in income distribution since education is an instrument of redressing inter-group economic and social inequality.

## 6.2 The Regional Distribution of Federal Government Recurrent Expenditures:

Government recurrent expenditures allocated are ₦403,338,000 and ₦1,562,863,000 for the 1971/72 and 1976/77 fiscal years respectively.<sup>5</sup> The detailed breakdown of these expenditures in terms of cost composition is presented in Table 6.3.

TABLE 6.3

FEDERAL GOVERNMENT CONSUMPTION EXPENDITURE  
ACCORDING TO COST COMPOSITION IN THOUSAND NAIRA

<u>COST-COMPOSITION</u>	<u>1971/72</u>	<u>1978/77</u>
Compensation of Employees	289,858	719,281
Goods	82,652	429,274
Service	<u>30,918</u>	<u>414,308</u>
Total	408,338 =====	1,562,863 =====

SOURCE: Federal Office of Statistics, Analysis of  
Government Account, Lagos, Nigeria, 1979.

Expenditures on compensation of employees consist mainly of wages and salaries as well as allowances paid to all categories of staff employed by government. Expenditures under the category of goods and services are those incurred in the purchases of such items as office materials, materials used in government establishments such as hospitals, fuel for motor vehicles and uniforms. Others are expenditures on transport and travelling in the course of duty of officers, electricity and telephones and expenditure on the maintenance of vehicles, machinery and equipment. These categories of expenditures are allocated to states on the basis of the distribution of Federal Civil Service established staff in the States presented in Table 6.4. The assumption for this basis of allocation is that government recurrent expenditures by states is highly related with the size of the Federal employees by States. The regional distribution of these expenditures is presented in Table 6.5.

TABLE 6.4

THE DISTRIBUTION OF FEDERAL CIVIL SERVICE  
ESTABLISHED STAFF BY STATES 1972 & 1977

STATES	NUMBER	PERCENTAGE	NUMBER	PERCENTAGE
Benue-Plateau	4,083	5.0	7,771	6.2
East-Central	5,819	7.1	7,979	6.4
Kano	2,460	3.0	5,440	4.4
Kwara	2,259	2.8	4,503	3.6
Lagos	38,182	46.8	50,021	40.2
Mid-West	4,543	5.6	5,677	4.6
North-Central	4,090	5.0	7,069	5.7
North-Eastern	4,848	5.9	10,227	8.2
North-Western	2,904	3.6	5,997	4.8
Rivers	1,958	2.4	2,607	3.7
South-Eastern	2,949	3.6	5,244	4.2
Western	7,555	9.6	9,975	8.0
	<u>81,651</u>	<u>100.0</u>	<u>124,503</u>	<u>100.0</u>

SOURCE: Federal Civil Service, -Manpower Statistics,  
1972 and 1977 Editions.

TABLE 6.5

REGIONAL DISTRIBUTION OF  
FEDERAL GOVERNMENT RECURRENT EXPENDITURES

	1971/72 Million Naira	PERCENT- AGE	1976/77 MILLION NAIRA	PERCENT- AGE
Benue-Plateau	20.2	5.0	97.5	6.2
East Central	28.7	7.1	100.1	6.4
Kano	12.2	3.0	68.3	4.4
Kwara	11.2	2.8	56.5	3.6
Lagos	188.6	46.8	627.9	40.2
Mid-Western	22.4	5.6	71.3	4.6
North Central	20.2	5.0	88.7	5.7
North Eastern	23.9	5.9	128.4	8.2
North Western	14.3	3.6	75.3	4.8
Rivers	9.7	2.4	57.8	3.7
South Eastern	14.6	3.6	65.8	4.2
Western	37.3	9.6	125.4	8.0
Total	403.3	100	1,562.9	100

Note: Computed from Tables 6.3 and 6.4.

Lagos State had the highest allocation of N188.6m and N627.9m for both the 1971/72 and 1976/77 fiscal years respectively. This is mainly due to the fact that majority of the ministries staff live in Lagos because Lagos is the Federal Capital of Nigeria. Some of the ministries have state offices but they are generally manned by a considerably small

number of staff compared with that of Lagos. Also, because Lagos is the capital city and a port, most of the goods used by various ministries are centrally purchased and distributed to their branches.

The large size of civil servants in Lagos State and the consequent large size of Federal Government current expenditures in Lagos State have some economic impact. Since the civil servants reside in Lagos, they pay personal income tax to the Lagos State Government. They also spend a large part of their salary and wages in Lagos State in the purchase of foodstuff and manufactured products, thereby encouraging large commercial activities. Lagos State not being predominantly an agricultural state, foodstuffs have to be supplied from the hinterland in which case, agricultural production is encouraged in these areas. The manufactured goods purchased are generally imported. Also, the large number of houses needed by the civil servants has led to high rentage and the consequent dwindling of their incomes. Many of these civil servants normally send part of their earning to their relations in the other States. These amounts which cannot be estimated may not be substantial. On the whole, the economic effect of the regional distribution of Federal Government expenditure in the remaining states are less significant.

### 6.3 Regional Distribution of Federal Government Expenditure

Having estimated the regional distribution of capital and recurrent expenditures separately, the sum give the regional distribution of Federal Government Capital and current expenditures, presented in Table 6.6. From the table, a simple indicator of inequality in the regional distribution of Federal Government expenditure, is given by the percentage share of each region's expenditure in Federal Government total expenditure.

TABLE 6.6  
REGIONAL DISTRIBUTION OF FEDERAL GOVERNMENT CAPITAL  
AND CURRENT EXPENDITURES

	1971/72		1976/77	
	MILLION NAIRA	PERCENTAGE OF TOTAL	MILLION NAIRA	PERCENTAGE OF TOTAL
Benue Plateau	27.4	5.4	177.9	5.2
East Central	38.2	7.5	222.5	6.5
Kano	17.7	3.5	135.4	4.0
Kwara	16.6	3.3	139.6	4.1
Lagos	211.9	41.8	967.9	28.4
Mid-Western	28.0	5.5	357.6	10.5
North Central	32.8	6.5	1.4	8.9
North Eastern	32.5	6.4	326.1	9.6
North Western	17.5	3.5	213.0	6.2
Rivers	14.2	2.8	151.5	4.4
Western	42.6	9.8	265.6	7.8
Total	<u>506.9</u>	<u>100</u>	<u>3,411.1</u>	<u>100</u>

Note: Computed from Tables 6.1, 6.2 and 6.5.

For the 1971/72 fiscal year, Lagos State had the largest allocation of ₦211.9m or 41.8 per cent of the total expenditure, followed by Western State with ₦49.6m or 9.8 per cent of the total expenditure. Rivers State with merely ₦14.2m or 2.8 per cent of the total expenditure had the least allocation. For the 1976/77 fiscal year, Lagos State also had the largest allocation of ₦967.9m or 28.4 per cent of the total expenditure, followed by Mid-Western State with ₦357.6m or 10.5 per cent of the total expenditures. Kano State had the least allocation of ₦135.4m or 4 per cent of the total expenditure.

A more satisfactory indicator of inequality in the regional distribution of Federal Government Expenditure which make inter-regional comparison more appropriate is the use of the national average of Federal Government expenditure per-capita as a weight to deflate each region's expenditure per-capita share of Federal Government expenditure. Thus inequality in the regional distribution of Federal Government expenditure is measured by the ratio  $\frac{R_i}{N_a}$  where

$R_i$  = given regions expenditure per-capita share of Federal Government expenditure.

$N_a$  = is simply a given region's share ( $S_i$ ) of Federal Government expenditure, divided by the region's population ( $P_i$ ).

$N_a$  = national average of Federal Government  
expenditure per-capita.

$N_a$  is simply the category of Federal Government  
expenditure  $E_j$ , divided by total population  $P = \sum_{i=1}^n P_i$   
for  $n$  regions.

$$\text{Thus } \frac{R_i}{N_a} = \frac{S_i}{P_i} / \frac{E_j}{P} = \frac{S_i}{P_i} \cdot \frac{P}{E_j}$$

$\frac{R_i}{N_a} \geq 1$  denotes inequality in the region's  
share of Federal Government  
expenditure.

$\frac{R_i}{N_a} = 1$  denotes equitable share of the region  
in Federal Government expenditure.

In particular, if  $\frac{R_i}{N_a} > 1$ , it means that the region is  
having more than proportionate  
share of Federal Government  
expenditure.

If  $\frac{R_i}{N_a} < 1$ , it means that the region is having less than  
proportionate share of Federal Government  
expenditure.

The measure of inequality of the regional  
distribution of Federal Government expenditure for  
1971/72 and 1976/77 fiscal years is presented in Table 6.7.



In the Table, it can be seen that there is gross inequalities in the regional distribution of current, capital and total Federal Government expenditures. In 1977/72 fiscal year, Lagos and Mid-Western States recorded more than proportionate share of Federal Government expenditure for current expenditures; Lagos, South-Eastern, North-Central, Rivers and Mid-Western States for capital expenditures; Lagos, Mid-Western and Rivers States for total expenditure. In 1976/77 fiscal year, Lagos and Rivers States recorded more than proportionate share of Federal Government current expenditure; Lagos, Mid-Western, Rivers, North-Central and Kwara States for capital expenditures; and Lagos, Mid-Western, Rivers and North-Central States for total expenditures. On the whole, Lagos State in particular and to some extent Mid-Western, North-Central and Rivers States were in favourable positions as far as current and capital allocations are concerned. These States have obtained spill-over benefits by attracting labour, capital investment and commercial activities at the expense of the less favourable States. If these inequalities in the regional distribution of federal government expenditure is not checked, it will lead to inequality in regional income distribution. Although the overall government expenditures in a state consists of both the federal government and state,

TABLE 6.7

MEASURE OF INEQUALITIES IN REGIONAL DISTRIBUTION OF FEDERAL GOVERNMENT EXPENDITURE						
STATES	1971/72			1976/77		
	CURRENT EXPENDI- TURE	CAPITAL EXPENDI- TURE	TOTAL EXPENDI- TURE	CURRENT EXPENDI- TURE	CAPITAL EXPENDI- TURE	TOTAL EXPENDI- TURE
Benue-Plateau	0.70	1.00	0.77	0.87	0.60	0.73
East-Central	0.55	0.73	0.59	0.50	0.51	0.50
Kano	0.29	0.53	0.34	0.42	0.35	0.38
Kwara	0.67	1.00	0.74	0.83	1.02	0.71
Lagos	17.12	8.20	15.29	14.34	6.46	10.04
Mid-Western	1.24	1.20	1.23	0.99	3.32	2.27
North Central	0.69	1.67	0.89	0.77	1.54	1.19
North Eastern	0.43	0.60	0.47	0.59	0.76	0.68
North Western	0.34	0.33	0.34	0.47	0.71	0.60
Rivers	0.88	1.60	1.03	1.32	1.78	1.57
South Eastern	0.55	1.87	0.62	0.65	0.70	0.68
Western	<u>0.55</u>	<u>0.67</u>	<u>0.58</u>	<u>0.46</u>	<u>0.43</u>	<u>0.45</u>
National Average	<u>1.00</u>	<u>1.00</u>	<u>1.00</u>	<u>1.00</u>	<u>1.00</u>	<u>1.00</u>

NOTE: Computed from Tables 6.8 and 6.9

government's expenditures, the overall pattern of the distribution may not likely be different from the pattern of the federal government expenditure since it always has the largest share of the federally collected revenues.

6.1

The Implications of the Regional Distribution  
of Federal Government Expenditures for Income  
Distribution in Nigeria

Government expenditure policy is an important fiscal tool for the distribution of income. Government expenditure per-capita reflects the amount of government services enjoyed by each person in a particular region. The changes in the regional distribution of government expenditures per-capita are indicators of the potential of redistributing income between regions.<sup>7</sup> This being so, a comparison of the regional distribution of expenditure per-capita and the changes that occurred during the period of analysis should provide reasonable basis for determining the effectiveness of government expenditures in redistributing income between the regions in Nigeria.

The current, capital and total government expenditures per-capita by states for 1971/72 and 1976/77 are presented respectively in Tables 6.8 and 6.9. These figures are calculated by using population figures presented in Appendix B.3.

TABLE 6.8CURRENT CAPITAL AND TOTAL GOVERNMENT EXPENDITURES PER-CAPITA BY REGIONS 1971/72

STATES	CURRENT EXPENDI- TURE P/C	CAPITAL EXPENDI- TURE P/C	TOTAL EXPENDI- TURE P/C
Benue Plateau	4.1	1.5	5.6
East Central	3.2	1.1	4.3
Kano	1.7	0.8	2.5
Kwara	3.9	1.5	5.4
Lagos	99.3	12.3	11.6
Mid-Western	7.2	1.8	9.0
North Central	4.0	2.5	6.5
North Eastern	2.5	0.9	3.4
North Western	2.0	0.5	2.5
Rivers	5.1	2.4	7.5
South Eastern	<u>3.2</u>	<u>1.3</u>	<u>4.5</u>
National Average	<u>5.8</u>	<u>1.5</u>	<u>7.3</u>

Note: Computed from Table 6.6 and Appendix B.3.

TABLE 6.9CURRENT, CAPITAL AND TOTAL EXPENDITURES PER-CAPITA BYREGIONS 1976/77

STATES	CURRENT P/C	CAPITAL P/C	TOTAL P/C
Benue Plateau	17.4	14.4	31.8
East Central	9.9	12.1	22.0
Kano	8.4	8.3	16.7
Kwara	16.6	24.4	31.0
Lagos	285.4	154.5	439.9
Mid-Western	19.8	79.5	99.3
North Central	15.3	36.8	52.1

TABLE 6.9 Cont'd

STATES	CURRENT P/C	CAPITAL P/C	TOTAL P/C
North Eastern	11.8	18.1	29.9
North Western	9.3	17.0	26.3
Rivers	26.3	42.6	68.9
South Eastern	12.9	16.8	29.7
Western	<u>9.2</u>	<u>10.3</u>	<u>19.5</u>
National Average	<u>19.9</u>	<u>23.9</u>	<u>43.8</u>

Note: Computed from Table 6.6 and Appendix B. 3.

In 1971/72 fiscal year, Lagos State recorded the highest recurrent, capital and total expenditures per-capita of ₦99.3; ₦12.3 and ₦111.6 respectively. For recurrent expenditures per-capita, Lagos State was followed by Mid-Western State with ₦7.2. All other States, recorded per-capita recurrent expenditure less than the national average of ₦5.8. For capital expenditures per-capita, Lagos State was followed by North-Central State, (₦2.5); Rivers State, (₦2.4) and Mid-Western State (₦1.8) in that order. These were the only States that recorded capital expenditure per-capita greater than the national average of ₦1.5. In terms of total expenditures per-capita only Lagos State (₦111.6), Mid-Western State (₦9.0) and Rivers State (₦7.5) recorded total per-capita expenditure greater than the national average of ₦7.3.

For 1976/77 fiscal year, Lagos also recorded the highest current, capital and total expenditures per-capita. For current expenditures per-capita, Rivers State, (N26.3) and Mid-West State, (N19.8) followed Lagos State in that order to record scores greater than the national average. With regard to capital expenditures per-capita, Mid-West State (N79.5), Rivers State, (N42.6), North Central (N36.8) and Kwara State, (N24.4) followed Lagos State in that order to record scores greater than the national average of N23.9. When total capital expenditures per-capital are considered, Lagos State, (N439.9), Mid-West State, (N99.3), Rivers State, N68.9) and North Central State, (N52.1) in that order recorded scores greater than the national average of N43.9. The general pattern noticed in Tables 6.7 and 6.8 is that the Southern States had greater expenditures per-capita than the Northern States.

The regional distribution of government expenditures per-capita was also considered from the functional category of government expenditures. The results are presented in Table 6.10. The pattern of the distribution of the functional categories of government expenditures per-capita is similar to the pattern of the distribution of current and capital expenditures per-capita.

TABLE 6.10

FUNCTIONAL CATEGORIES OF GOVERNMENT INVESTMENT EXPENDITURES  
PER-CAPITA BY STATES 1971/72 AND 1976/77

STATES	<u>1971/72</u>		<u>1976/77</u>	
	ECONOMIC SERVICES P/C	SOCIAL ECONOMIC P/C	ECONOMIC SERVICES P/C	SOCIAL SERVICES P/C
Benue Plateau	1.2	0.2	9.5	4.9
East Central	0.3	0.8	7.2	4.9
Kano	0.8	*	2.7	5.6
Kwara	1.2	0.3	18.4	6.2
Lagos	5.6	6.3	81.0	73.1
Mid-Western	1.7	0.1	69.8	9.7
North Central	0.5	1.5	28.4	8.3
North Eastern	0.8	0.1	13.9	4.2
North Western	0.3	0.1	12.5	4.5
Rivers	2.1	0.3	29.2	13.6
South Eastern	1.2	0.1	11.4	5.4
Western	<u>0.3</u>	<u>0.7</u>	<u>6.5</u>	<u>14.6</u>
National Average	<u>0.9</u>	<u>0.6</u>	<u>16.1</u>	<u>7.4</u>

Note: Computed from Table 6.1 and Appendix B. 3.

\*Negligible.

In order to judge whether Federal Government expenditure have reduced regional disparities in income, the ratios of the expenditures per-capita of the leading state and the poorest state for 1971/72 and 1976/77 fiscal years were computed. In all the categories of expenditures per-capita with the exception of economic services expenditures per-capita, the ratio fell between 1971/72 and 1976/77. For current expenditures

per-capita, the ratio decreased from 58:1 to 31.1, capital expenditures per-capita decreased from 25:1 to 19:1, total expenditures per-capita slumped from 47:1 to 26:1, economic services expenditures per-capita increased from 19:1 to 30:1 and social services expenditures per-capita fell from 63:1 to 17:1.

These reductions in the ratios indicate that Federal Government expenditures have reduced regional disparities in income between 1971/72 and 1976/77.

The same conclusion was reached when the inter-regional coefficient of variations<sup>8</sup> of current expenditures, capital expenditure, economic services and social services expenditures per-capita were computed.

The inter-regional coefficient of variation denoted by V, is defined as

$$V = \frac{s}{\bar{x}} \text{ where}$$

$\bar{x}$  = the mean of the expenditure per-capita.

s = the standard deviation of the expenditure per-capita.

The higher is the value of V, the greater is inequality; the lower is V, the less is inequality. The inter-regional coefficient of variations for the various categories of expenditures per-capita are presented



in Table 6.11 and the calculation of the coefficient of variation is presented in Appendix B.5.

TABLE 6.11  
INTER-REGIONAL COEFFICIENT OF VARIATION, V OF  
EXPENDITURES PER-CAPITA 1971/72 and 1976/77

CATEGORY OF EXPENDITURE PER CAPITAL	COEFFICIENT OF VARIATION	
	1971/72	1976/77
Total Expenditure per-capita	2.1	1.6
Current Expenditure per-capita	2.3	0.9
Capital Expenditure per-capita	1.3	1.1
Economic Services Expenditure per-capita	1.1	1.0
Social Services Expenditure per-capita	1.9	1.4

In all the various cases, the inter-regional coefficient of variations of expenditures per-capita for 1976/77 were lower than those for 1971/72. This means that inequalities between the States decreased between 1971/72 and 1976/77.

FOOTNOTES

1. A region in this context refers to a state which constitutes a political unit in the Federal Republic of Nigeria.
2. See G. Myrdal, Economic Theory and Under-developed Regions. London: Duckworth, 1950.
3. The analysis is based on the twelve state structure of Nigeria to ensure uniformity between the two fiscal years. During the 1971/72 fiscal year, Nigeria operated a twelve state structure whereas a nineteen state structure became operative as from the 1975/76 fiscal year.
4. The position of Lagos State is peculiar because Lagos State is the seat of both the Federal and State Governments. This dual capacity means that the disproportionate allocation made to Lagos State should be viewed with caution.
5. These amounts exclude statutory allocation to states, contributions to foreign organisations and debt servicing.
6. See Appendix 3.3 for population data used in calculating each region's expenditure per-capita.
7. This concept is used by assuming that the secondary benefits of the projects are negligible or virtually the same in each region.
8. The same concept was used by J.G. Williamson, "Regional Inequality and the Process of National Development: A Description of Patterns", Economic Development and Cultural Change, (July, 1965) to measure regional inequality.

THE DISTRIBUTION OF BENEFICIARIES OF FEDERAL  
GOVERNMENT EXPENDITURES BY INCOME-GROUPS

This chapter presents the result of a survey conducted to find out the distribution of beneficiaries of government expenditures by income-groups. This survey was undertaken in order to obtain allocators used in the estimation of the distributional impact of government expenditures by income-groups. The first section of the chapter focuses on the survey design. The results of the survey on education, health, housing and electricity are presented respectively in the second, third, fourth and fifth sections of this chapter.

7.1 The Survey Design

7.1.1 Objective and Scope of the Survey:

The objective of this survey was to obtain data for the estimation of benefits of government expenditures by income-groups. The survey was specifically meant to find out:

- a) The distribution of beneficiaries of government expenditures by income-groups and
- b) The estimated value of the benefits by income groups.

The survey which covered the areas of education, health, housing and electricity was also aimed at obtaining information concerning the beneficiaries of government expenditures in terms of demographic characteristic, educational level and employment status.

#### 7.1.2 Method of Data Collection:

The questionnaire approach was used to obtain information on education while the interview and questionnaire methods were used in obtaining information on health, housing and electricity.

#### 7.1.3 Sample Design

(a) Frame: Three types of frame were used. First was the list of states which constituted the first stage sampling. Seven states namely Kaduna, Borno, Cross Rivers, Anambra, Bendel, Oyo and Lagos were selected to ensure wide geographical spread. The second stage sampling was the list of institutions or towns in the states selected, comprising two urban and two rural. Both selections were done by the researcher in the office. The third stage sampling was the selection of individuals or households within the institutions or towns. This was done in the field by using random or systematic sampling techniques.

b) Stratification

For the educational institutions, the questionnaires were administered on five faculties. In each faculty, the questionnaires were further administered among Parts I, II, III and Post Graduate students.

For the towns, interviews were conducted in the commercial, residential areas and official quarters.

For health institutions, the questionnaires were administered in at least seven wards of the hospitals.

7.1.4 Reference Period:

The survey was carried out for one month, November 1983.

7.1.5 Terms and Concepts Used:

a) Household: A person or group of persons who live together under the same roof and have a common feeding arrangement.

b) Income: Income includes cash receipts as well as non-cash receipts such as income in kind, consumption from own production, imputed rent on owner-occupied dwelling and services received free.

The income of the household is the sum of the income of all the members of the household.

c) Rural: A rural area is any built-up area which has less than 20,000 inhabitants, with agriculture being the predominant occupation.

#### 7.1.6 Non-Response

The survey suffered to some extent from non-response. This was due to the uncooperative attitude of some heads of household who found it uncomfortable to respond to the questions of the interviewers.

In the case of questionnaires, some of the completed forms were rejected because of incomplete information.

### 7.2 Education

The survey on education was conducted to obtain information on Secondary, Polytechnic, Technical Schools and Colleges of Education and University levels. Since the research is on Federal Government expenditures, the survey covered only federal government educational institutions. The list of educational institutions covered is presented in Appendix C.1.

#### 7.2.1 Secondary Education

Table 7.1 presents the distribution of students by sex and by parent's or guardian's income.

TABLE 7.1

THE DISTRIBUTION OF STUDENTS BY SEX AND PARENT'S  
OR GUARDIAN'S INCOME

Income Group	Male No.	Male Percen- tage	Female No.	Female Percen- tage	Total No	Total Percen- tage
0 - 1,000	20	13.1	3	4.1	23	10.1
1,001-2,000	13	8.5	3	4.1	16	7.0
2,001-3,000	18	11.8	5	6.8	23	10.1
3,001-4,000	15	9.8	9	12.2	24	10.5
4,001-5,000	9	5.9	4	5.4	13	5.7
5,001-6,000	17	11.1	11	14.9	28	12.3
6,001- & above	61	39.9	39	52.7	100	44.1
	153	100.0	74	100.0	227	100.0

Raw Chi-Square 9.35 with 6 Degrees of Freedom  
Level of Significance 0.1548.

From the table, it can be seen that the number of beneficiaries of education for both sexes is positively related to income. There are also more male students 67.4 percent to female students 32.6 percent. Such a result is expected as it has shown clearly that it is the children of rich men who can afford the cost of superior private primary schools and pay the high fees in federal secondary schools that can pass the entrance examination and benefit from such education.

The survey also looked at the distribution of students by parent's or guardian's educational level. The result is presented in Table 7.2.

TABLE 7.2  
THE DISTRIBUTION OF STUDENTS BY PARENT'S OR  
GUARDIAN'S EDUCATIONAL LEVEL

Parent's or Guardian's Educational Level	No	Percentage
No. formal education	33	14.5
Below School Cert. or equivalent	33	14.5
Below first degree or equivalent but not lower than Schoo' Cert	46	20.3
University first degree or equivalent and above	115	50.7
	227	100.0

Source: Survey by the researcher.

Table 7.2 reveals that the number of students is positively related to the level of education. This is an indication that the higher is the educational level of a parent or guardian the better the chances of his children obtaining admission into federal government secondary schools.

When the distribution of students by parent's or guardian's employment status is considered, as presented in Table 7.3, it was found that students with salary earning parents or guardians are more than those whose parent's or guardian's are self-employed.



TABLE 7.3  
DISTRIBUTION OF STUDENTS BY PARENTS OR  
GUARDIAN'S EMPLOYMENT STATUS

Parent's or Guardian's Employment Status	No.	Percentage
Unemployed	15	5.6
Self-employed	74	32.6
Earner	138	60.8
	227	100.0

Source: Survey by the Researcher.

7.2.2 Polytechnics, Technical Colleges and Colleges  
Of Education;

Table 7.4 presents the distribution of students by sex and parent's or guardian's income.

TABLE 7.4  
THE DISTRIBUTION OF STUDENTS BY SEX AND PARENT'S  
OR GUARDIAN'S INCOME

Income-Group	Male		Female		Total	
	No.	Per- centage	No.	Per- centage	No	Per- centage
0 - 1,000	33	25.4	23	23.7	56	30.0
1,000-2,000	30	23.8	15	15.5	45	20.1
2,001-3,000	16	12.7	11	11.3	27	12.1
3,001-4,000	16	12.7	12	12.4	28	12.3
4,001-5,000	10	7.9	13	13.4	23	10.3
5,001-6,000	9	7.1	9	9.3	19	8.5
6,001 & above	12	9.5	14	14.4	26	11.6
	126	100	97	100	224	100.0

Source: Survey by the Researcher

Raw Chi-Squared 15.69 with 14 Degrees of Freedom.  
Level of Significance 0.2731.

The table reveals that unlike in secondary education, the number of students in this level of education is negatively related to income. The likely reason for this result is that majority of these students attended second-rate secondary schools since their parents or guardians could not pay for their education in better secondary schools. They therefore could not qualify for university admission.

When the distribution of students by parent's or guardian's educational level is considered, it can be seen in Table 7.5 that the higher the educational level of the parent or guardian, the less is the number that benefitted from education in the Polytechnic, Technical School or College of Education.

TABLE 7.5  
THE DISTRIBUTION OF STUDENTS BY PARENTS OR  
GUARDIAN'S EDUCATIONAL LEVEL:

Parent's or Guardian's Educational level	No.	Percentage
No formal education	58	25.4
Below School Cert. or equivalent	69	31.8
Below first degree or equivalent but not lower than School Cert. or equivalent	53	23.7
University first degree or equivalent and above	45	20.1
	224	100.0

Source: Survey by the Researcher.

The distribution of this category of students was also considered by parent's or guardian's employment status and the result is presented in Table 7.6.

TABLE 7.6  
THE DISTRIBUTION OF STUDENT'S BY PARENT'S OR  
GUARDIAN'S EMPLOYMENT STATUS

Parents or Guardian's Employment Status	No.	Percentage
Unemployed	22	9.8
Self-employed	108	48.2
Earner	94	42.0
	224	100.0
	=====	

Source: Survey by the Researcher.

The table reveals that self-employed parents or guardians have the largest number of students 48.2 percent in the Polytechnics, Technical Colleges and Colleges of Education.

#### 7.2.3 University Education

The distribution of students by sex and parent's or guardian's income, educational level and employment status are presented in Tables 7.7, 7.8 and 7.9 respectively.

TABLE 7.7

THE DISTRIBUTION OF STUDENTS BY SEX AND BY  
PARENT'S OR GUARDIAN'S INCOME

Income-Group	Male		Female		Total	
	No.	Perce- tage	No.	Perce- tage	No.	Perce- tage
0 - 1,000	12	12.9	5	7.7	17	10.8
1,001-2,000	9	9.7	2	3.1	11	7.0
2,000-3,000	10	10.8	3	4.5	13	8.2
3,001-4,000	10	10.8	6	9.2	16	10.1
4,001-5,000	12	12.9	8	12.3	20	12.7
5,001-6,000	7	7.5	6	9.2	13	8.2
6,001 & above	33	35.5	35	53.8	58	43.0
	93	100.0	65	100.0	158	100.0
	=====					

Raw Chi-Square = 9.643 with 7 Degrees of Freedom.

Level of Significance 0.2097.

Source: Survey by the Researcher.

The distribution of university students by parents' or guardian's income, educational level, and employment status reveal the same pattern as that of secondary school education.

The overall results for education in general reveal that parents or guardian's income or educational level are important factors which determine the beneficiaries of education.

TABLE 7.8

THE DISTRIBUTION OF STUDENTS BY PARENT'S OR  
GUARDIAN'S EDUCATIONAL LEVEL

Parents or Guardian's Educational Level	No.	Percentage
No formal education	32	20.3
Below School Cert. or equivalent	24	15.2
Below first degree or equivalent and not lower than school cert. or equivalent	36	22.8
University first degree or equivalent and above	66	41.8
	158	100.0

Source: Survey by the researcher.

TABLE 7.9

THE DISTRIBUTION OF STUDENTS BY PARENT'S OR  
GUARDIAN'S EMPLOYMENT STATUS

Parent's or Guardian's Employment status	No.	Percentage
Unemployed	4	2.5
Self-employed	78	49.4
Earners	76	48.1
	158	100.0

### 7.3 Health

The survey on health covered only Teaching Hospitals. These are the main health institutions which are financed by the federal government. A list of the institutions covered in the survey is presented

in Appendix C.2.

Table 7.10 presents the distribution of patients by sex. From the table, it can be seen that there are more female patients than male patients. The percentage of male patients was 45.6 while that of female patients was 54.4.

TABLE 7.10  
THE DISTRIBUTION OF PATIENTS BY SEX

SEX	NO.	PERCENTAGE
Male	129	45.6
Female	154	54.4
Total	283	100.0
	=====	

Source: Survey by the researcher

When the distribution of patients by educational level is considered as presented in Table 7.11, it was found that about 49.1% of the patients have no formal

TABLE 7.11  
THE DISTRIBUTION OF PATIENTS BY EDUCATIONAL  
LEVEL

Level of Patients' Education	No.	Percentage
No. formal education	139	49.1
Below School Cert. or equivalent	60	21.2
Below first degree or equivalent but not lower than school cert.	55	19.4
University first degree or equivalent and above	29	10.2
	283	100.0
	=====	

Source: Survey by the Researcher

education and the proportion of patients in various levels of education was negatively related to the level of education. This is an indication that the higher is the educational level, the less likely is one exposed to health hazards due to the knowledge and adoption of simple hygiene.

The survey also obtained the distribution of patients by employment status. The result presented in Table 7.12 show that earners with a percentage of 39.2 percent benefit from health facilities than self-employed

TABLE 7.12  
THE DISTRIBUTION OF PATIENT'S BY EMPLOYMENT  
STATUS

<u>Employment Status</u>	<u>No.</u>	<u>Percentage</u>
Unemployed	76	26.9
Self-employed	96	33.9
Earner	111	39.2
	283	100.0
	=====	=====

Source: Survey by the researcher.

33.9 percent and unemployed 26.9 percent.

The result of the distribution of patients by patient's income and duration in hospital is presented in Table 7.13.

TABLE 7.13

THE DISTRIBUTION OF PATIENTS BY INCOME AND  
DURATION IN HOSPITAL

Income Group	DURATION						Total	Percentage
	Less than 3 days	3 days to 1wk	1-2 wks	2-3 wks.	3-4 wks	4wks over		
0 - 1,000	58	5	6	6	5	9	89	31.5
1,001-2,000	21	2	6	1	6	6	42	14.8
2,001-3,000	31	7	12	0	4	2	56	19.8
3,001-4,000	28	3	14	3	2	2	52	18.4
4,001-5,000	12	1	3	2	0	1	19	6.7
5,001-8,000	9	1	1	1	1	1	14	4.9
6,001& above	66	1	2	0	0	2	11	3.9
	165	20	44	13	18	23	283	100.0

Raw-Chi-Square = 42.34 with 42 Degrees of Freedom. Level of significance 0.4552.

Source: Survey by the researcher

The result show that patients are concentrated in the lower income-groups and that more people spend less number of days in the hospital. Specifically about 58.3<sup>percent</sup>% of the patients spend less than 3 days in the hospitals. From the result, it can be deduced that the poorer section of the population are the major beneficiaries of health facilities. This is probably because they cannot afford the high fees charged in private hospitals. Another possibility is that the richer section of the population are able to feed better and live in better environment hence they are less prone to illness requiring hospitalization.



#### 7.4 Housing:

The survey on housing covered only federal government houses in the various states. A list of the states and towns covered is presented in Appendix C.3.

Table 7.14 presents the distribution of households by the educational level of landlords.<sup>1</sup>

TABLE 7.14  
THE DISTRIBUTION OF HOUSEHOLDS BY  
EDUCATIONAL LEVEL

EDUCATIONAL LEVEL OF LANDLORD	NO.	PERCENTAGE
No formal education	8	5.4
Below School Cert. or equivalent	30	20.4
Below first degree or equivalent but not lower than School Cert.	80	54.4
University first degree or equivalent and above	29	19.8
	147	100
	=====	

Source: Survey by the researcher.

The result shows that those who obtained middle level educational qualification benefit more from housing. While the beneficiaries without formal education was only 5.4 percent, those with school certificate was 20.4 percent and those with qualifications less than first degree but not lower than school certificate constituted about 54.4 percent of the beneficiaries.

When the distribution of households by landlords' employment status is considered, it can be seen in Table 7.15 that majority of the beneficiaries, about 76.2 percent are earners, and about 19.0 percent are self-employed and only 4.8 percent are unemployed.

TABLE 7.15  
THE DISTRIBUTION OF HOUSEHOLDS BY  
EMPLOYMENT STATUS OF LANDLORD

EMPLOYMENT STATUS	NO.	PERCENTAGE
Unemployed	7	4.8
Self-employed	28	19.0
Earner	112	76.2
	147	100.0
	=====	

Source: Survey by the researcher

Table 7.16 presents the distribution of households by income group and rentage. From the table, it can be seen that beneficiaries are spread throughout the income-groups with those in the middle income range of between ₦2,000 - ₦5,000 comprising the major beneficiaries. These categories of income-earners comprise about 63.3 percent of the total beneficiaries. It can also be seen that majority of the beneficiaries re-pay between zero naira to sixty naira monthly.

TABLE 7.16

THE DISTRIBUTION OF HOUSEHOLDS BY INCOME AND REPAYMENT

Income-Group	0-40	41-60	61-80	81-120	Total	Percentage
0 - 1,000	8	3	0	0	11	7.5
1,001-2,000	14	0	0	0	14	9.5
2,001-3,000	24	1	1	1	27	18.4
3,001-4,000	33	6	1	0	40	27.2
4,001-5,000	23	1	2	0	26	17.7
5,001-6,000	8	9	1	0	18	12.2
6,001 & above	5	3	2	1	11	7.5
	98	41	7	1	147	100

Raw Chi-Square 48.58 with 24 degrees of Freedom.

Level of significance 0.0021.

Source: Survey by the researcher

### 7.5 Electricity:

The survey on electricity covered three states. In each state, four towns were selected, two from the urban area and two from the rural areas. The list of the states and towns covered is presented in Appendix C.4.

Table 7.17 presents the distribution of households with electricity by the educational level of the landlord. From the table, it can be seen that those with educational level below school certificate or equivalent comprising about 79.1 percent of the total, benefit from

TABLE 7.17

THE DISTRIBUTION OF HOUSEHOLDS WITH  
ELECTRICITY BY THE EDUCATIONAL LEVEL OF THE LANDLORD

EDUCATIONAL LEVEL	NO.	PERCENTAGE
No formal education	86	28.1
Below School Certificate or equivalent	89	29.1
Below first degree or equivalent but not lower than School Certificate	71	23.2
University first degree or equivalent equivalent and above	60	19.6
	306	100.0
	=====	

Source: Survey by the researcher

electricity consumption. Next are those with no formal education comprising 28.1 percent of the total beneficiaries while those having at least a first degree or equivalent comprise 19.6 percent of the total beneficiaries.

When the distribution of households with electricity by employment status of the landlord is considered, presented in Table 7.18, it can be seen that earning landlords are the major beneficiaries with 53 percent of the total, the self-employed landlords come next with about 40.5 percent of the total beneficiaries, and the unemployed landlords comprise only 6.5 percent of the total beneficiaries of electricity.

TABLE 7.18

THE DISTRIBUTION OF HOUSEHOLDS WITH ELECTRICITY  
BY THE EMPLOYMENT STATUS OF LANDLORD

Employment Status	No.	Percentage
Unemployment	20	6.5
Self-Employed	124	40.5
Earner	152	53.0
	306	100.0
	=====	

The distribution of households with electricity by income-group and electricity cost is presented in Table 7.19.

TABLE 7.19

THE DISTRIBUTION OF HOUSEHOLDS WITH ELECTRICITY BY  
INCOME GROUP AND AMOUNT CONSUMED:

Income-Group	N 0-5	N 6-10	N 11-15	N 16-20	N 21-25	N 26-30	N31 and above	Total	Perce- tage
0 - 1,000	13	11	5	0	0	0	0	29	9.5
1,001-2,000	29	17	10	1	0	0	0	57	18.6
2,001-3,000	8	22	20	7	0	0	0	57	18.6
3,001-4,000	5	14	18	15	1	1	0	54	17.6
4,001-5,000	2	8	13	7	2	1	1	34	11.1
5,001-6,000	2	1	7	6	3	6	2	27	8.8
6001 & above	2	7	1	11	6	9	12	48	15.7
	61	80	74	47	12	17	15	306	100.0

Raw-Chi square 119.023 with 42 degrees of freedom. Level of significance 0.000.

Source: Survey by the researcher.

From the table, it can be seen that households in the income groups of ₦1,001 - ₦2,000 and ₦2,001 - ₦3,000 each constitute about 18.6 percent of beneficiaries of electricity. The percentage of households that benefited from electricity was decreasing with higher levels of income-groups except in the income group of ₦6,001 and above where the beneficiaries were 15.7 percent of the total. When the distribution of households by amounts of electricity is considered, it can be seen that the lower income-groups consume less electricity per household than the higher income groups. This result is expected because the richer people have more electrical appliances which naturally make them consume more electricity.

FOOTNOTES

1. In this chapter, the term landlord refers to the head of the household whether he owns the accommodation or not.

CHAPTER EIGHTTHE DISTRIBUTIONAL IMPACT OF  
FEDERAL GOVERNMENT EXPENDITURE  
AMONG INCOME-GROUPS

This Chapter is concerned with the estimation of the distributional impact of Federal Government expenditures among income-groups by analyzing expenditures for the 1976/77 fiscal year. As already explained in Chapter 4, this involves the estimation of the value of benefits of projects, allocation of the valued benefits to direct beneficiaries and distribution of the valued benefits of direct beneficiaries among income-groups. Not all Federal Government expenditures for the 1976/77 fiscal year were analyzed. In the social services category, expenditures for education, health and housing were analyzed. In the economic services category, only expenditures for power were analyzed. Also analyzed were expenditures for general administration.

This chapter is divided into six sections. In the first section, benefits from educational expenditures are analyzed. In the second section, benefits from health expenditures are analyzed while benefits from housing and power expenditures are analyzed in sections three and four respectively. Section five is devoted to the analysis of general services expenditures whose



benefits are collective in nature. In section six of the Chapter, the distributional impact of Federal Government Expenditures among income-groups are analyzed and discussed.

### 8.1 The Distributional Impact of Educational -Expenditures Among Income-Groups

The educational system in Nigeria can conveniently be divided into three levels for the purpose of analysis. These are the primary, secondary and post-secondary levels. The post-secondary level, consists of Polytechnics, Technical Schools, Colleges of Education and Universities. The Federal and State Governments have concurrent constitutional and administrative responsibility for educational development. The Federal Government which previously had little responsibility for Primary and Secondary education was involved in both because of the Universal Primary Education Scheme<sup>1</sup> (UPE) and the financing of a massive expansion programme in Secondary and Technical Education. In the field of post-secondary education, the Federal Government has direct responsibility for Federal Colleges of Technology, Polytechnics, Colleges of Education and Universities. Apart from publicly financed educational institutions, there are a few private primary and secondary schools owned by religious bodies and foreign communities. The number of these

private institutions has diminished considerably in recent years owing to their take-over by various state governments.

As shown in Table 8.1, Federal Government expenditures for education amounted to ₦1,168.86 million in 1976/77. The large expenditures in education was due to many factors.

TABLE 8.1

FEDERAL GOVERNMENT EXPENDITURES IN  
EDUCATION FOR 1976/77 IN MILLION NAIRA

PROGRAMMES	CURRENT	CAPITAL	TOTAL
Primary Education	196.23	185.40	381.63
Secondary Education	44.43	41.98	86.41
Technical Education	14.00	13.24	26.24
Higher Education	248.90	235.18	484.08
Education General	96.61	91.28	187.89
Antiquities	0.83	0.78	1.61
T O T A L	<u>601.00</u> =====	<u>567.86</u> =====	<u>1,168.86</u> =====

SOURCE: Estimated from the Recurrent and Capital  
Estimates of the Federal Republic of Nigeria.

In the area of primary education, the Federal Government introduced the UPE programme in order to equalize opportunities for education throughout the country.<sup>2</sup> The scheme which started in September, 1976, made primary education free and universal throughout the country.

The Federal Government educational programme also consisted of removing the imbalance in the educational system, a system whereby about 90 percent of students who enrolled in the formal school system were in the primary schools and about 10% were in the other levels. Such structural imbalance meant that there were no adequate opportunities for the products of the primary schools to proceed to secondary and post-secondary education levels. To this end, secondary school education was rapidly expanded to permit possible enrolment of primary school leavers. In the area of post-secondary education, the Federal Government increased its expenditures on post-secondary technical education in order to encourage the transfer of technology which is very vital for development. The abolition of the payment of tuition fees in institutions of higher learning, the increase in the expenditure on students' financing through increased disbursements for scholarships, bursaries and loans, also contributed to the large expenditures on education.

To obtain the benefits from educational expenditure, the total cost of capital projects was discounted at the rate of 7 percent per annum over a life span of fifteen years by assuming equal yearly amounts of benefits. The total benefits for 1976/77 are simply one year's discounted capital cost plus the current expenditures for 1976/77. The estimated benefits for the various educational programmes are presented in Table 8.2 Expenditures for antiquities were excluded because they do not benefit students alone.

TABLE 8.2  
ESTIMATED BENEFITS FROM EDUCATION  
BY LEVELS OF EDUCATION FOR 1976/77

<u>L E V E L</u>	<u>N'm</u>
Primary Education	248.13
Secondary Education	58.56
Polytechnics, Technical School and Colleges of Education	18.42
University Education	327.43
T O T A L	<u>652.54</u> =====

SOURCE: Calculated from Table 8.1

Having estimated the valued benefits of educational expenditures, the next task in the analysis is to allocate the benefits among income-groups. This is undertaken by analysing each level of education separately.

In the case of primary education, the introduction of the UPE enabled more children of the poorer section of the population to benefit. This resulted in the large increase in primary school enrolment. A look at Table 3.3 reveals that primary school enrolment jumped from about 5.9 million in 1975/76 to about 8.2 million in 1976/77. Another factor which affects the benefits from primary education is the presence of private fee-paying primary schools mostly found in the urban areas. These private primary schools often have better facilities than the public primary schools and as a result, the higher income-groups normally send their children to the private schools rather than send them to public primary schools. In the rural areas where private primary schools are few, both the rich and the poor have no alternative but to send their children to public primary schools. The effects of the UPE scheme and private primary schools point to the fact that, the lower and middle income-groups are likely to benefit more from primary school education than the higher income-groups. The benefits from primary

TABLE 8.3

TOTAL EDUCATIONAL ENROLMENT IN NIGERIA  
1970/71 - 1977/78

PROGRAMMES	1970/71	1971/72	1972/73	1973/74	1974/75	1
Primary Education	3,515,820	3,515,320 3,894,539	3,111,539 4,391,197	4,661,121	5,193,550	5,
Secondary Grammar and Commercial schools	310,054	43,313	400,803	497,159	490,334	
Teacher Training Institutions	33,332	37,119	41,870	44,520	72,597	
Technical and Voca- tional Schools	13,654	15,884	15,953	18,776	24,412	
Colleges of Education	N.A.	N.A.	N.A.	N.A.	N.A.	
Universities	N.A.	N.A.	N.A.	N.A.	25,465	

SOURCES: (i) Annual Abstract of Statistics (1981 Edition).

(ii) Social Statistics in Nigeria, Federal Office of Statistics

education is therefore distributed among the income-groups according to the number of people in each income-group as obtained from the survey presented in Appendix D.1. The distribution of benefits of primary education by income-groups is presented in Table 3.4.

TABLE 3.4

THE DISTRIBUTION OF BENEFITS OF  
PRIMARY EDUCATION BY INCOME-GROUPS

INCOME-GROUPS	NUMBER OF BENEFICIARIES	BENEFITS RECEIVED IN N'm
0 - 1,000	252	29.0
1,001 - 2,000	479	55.3
2,001 - 3,000	467	54.1
3,001 - 4,000	383	44.2
4,001 - 5,000	197	22.8
5,001 - 6,000	143	16.6
6,001 and above	<u>225</u>	<u>26.1</u>
	<u>2,146</u>	<u>248.1</u>

In the cases of Secondary, Polytechnic, Technical and Colleges of Education and University education, the distribution of benefits among income-groups is based on the results of the survey on the distribution

of students by parents' income. Anusionwu and Liejomaoh<sup>3</sup>, in their study of the distributive incidence of public education subsidy in Nigeria, arrived at the conclusion, that the income-group of a student's parent is an important factor which determines access to education in Nigeria. This fact has also been confirmed from the result of the survey presented in the previous chapter. The benefits from these categories of education are therefore allocated among income-groups on the basis of the income-groups of parents as presented in Appendix D. 1. The distribution of benefits from these levels of education among income-groups are estimated and presented in Tables 8.5, 8.6 and 8.7.

TABLE 8.5

THE DISTRIBUTION OF BENEFITS OF  
SECONDARY EDUCATION BY INCOME-GROUPS

INCOME-GROUPS	NUMBER OF BENEFICIARIES	BENEFITS RECEIVED IN ₦'m
0 - 1,000	23	5.9
1,001 - 2,000	16	5.9
2,001 - 3,000	23	5.9
3,001 - 4,000	24	6.1
4,001 - 5,000	13	3.3
5,001 - 6,000	28	7.2
6,001 and above	100	25.8
	<u>227</u>	<u>58.56</u>



TABLE 3.6

THE DISTRIBUTION OF BENEFITS OF POLYTECHNIC, TECHNICAL  
SCHOOLS AND COLLEGES OF EDUCATION LEVEL OF EDUCATION  
BY INCOME GROUPS

INCOME-GROUPS	NUMBER OF BENEFICIARIES	BENEFITS RECEIVED IN N'm
0 - 1,000	56	5.5
1,001 - 2,000	45	3.7
2,001 - 3,000	27	2.2
3,000 - 4,000	28	2.3
4,001 - 5,000	23	1.9
5,001 - 6,000	19	1.6
6,001 and above	25	2.1
	<u>224</u>	<u>18.42</u>

TABLE 3.7

THE DISTRIBUTION OF BENEFITS OF  
UNIVERSITY EDUCATION BY INCOME-GROUPS

INCOME	NUMBER OF BENEFICIARIES	BENEFITS RECEIVED IN N'm
0 - 1,000	17	35.4
1,001 - 2,000	11	22.9
2,001 - 3,000	13	26.8
3,001 - 4,000	15	33.1
4,001 - 5,000	20	41.6
5,001 - 6,000	13	26.8
6,001 and above	58	140.8
	<u>158</u>	<u>327.43</u>

The overall distribution of benefits of education by income-groups is obtained by summing up all the benefits from all the levels of education. The result is presented in Table 8.8 and the Lorenz curve in figure 8.a. From the Lorenz curve, it is estimated that the Gini coefficient of the distribution of

TABLE 8.8  
THE DISTRIBUTION OF BENEFITS OF  
EDUCATION BY INCOME-GROUPS

INCOME-GROUPS	NO OF BENEFICI- FIARIES	BENEFITS RECEIVED IN N'm	PERCEN- TAGE OF BENEFICIA- RIES.	PERCEN- TAGE OF BENEFITS
0. - 1,000	348	75.8	12.7	11.6
1,001 - 2,000	550	86.0	20.1	13.2
2,001 - 3,000	530	89.0	19.3	13.6
3,001 - 4,000	450	85.7	16.4	13.1
4,001 - 5,000	253	69.6	9.2	10.7
5,001 - 6,000	203	52.2	7.4	8.0
6,001 -and above	408	194.3	14.9	29.8
	<u>2,742</u>	<u>652.5</u>	<u>100.0</u>	<u>100.0</u>

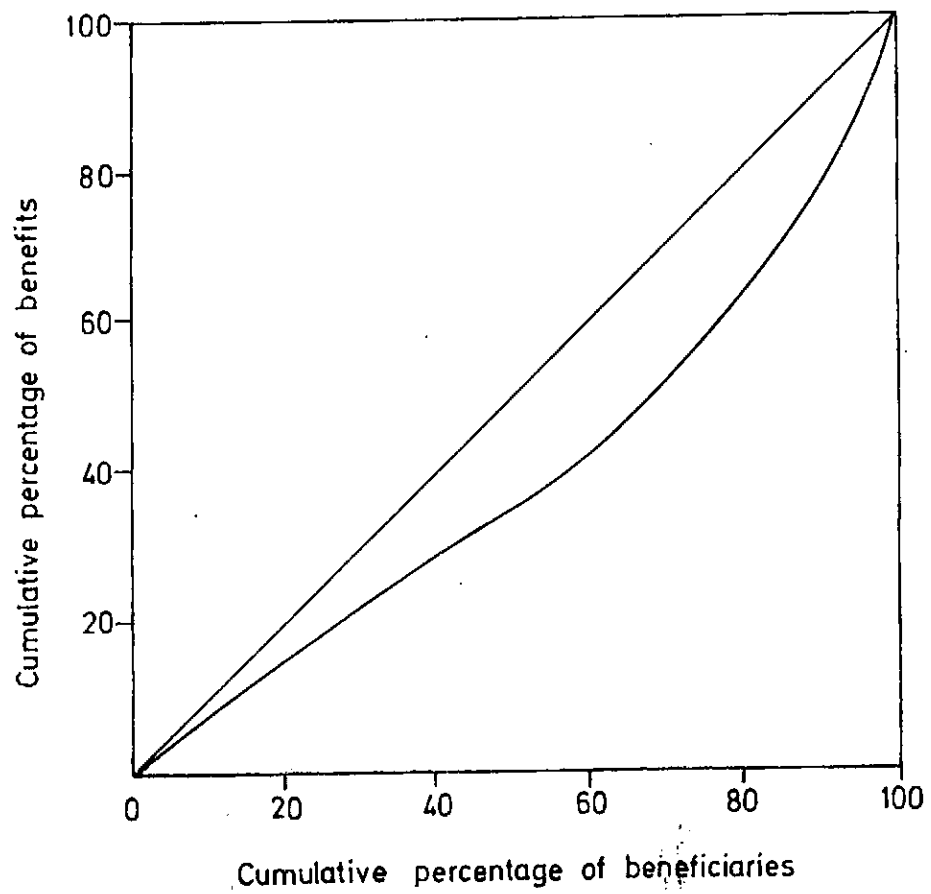


Fig. 8.a LORENZ CURVE SHOWING THE DISTRIBUTION OF BENEFITS OF EDUCATION

education benefits is 0.19. It is also obtained that the bottom 20 percent income earners received 16 percent of benefits, the middle 40 percent income earners received about 30 percent of benefits while the top 10 percent income earners received 21 percent benefits. This pattern of benefits distribution which is inequitable has been caused mainly by secondary education which largely benefits the higher income-groups. Admission into Federal Government Secondary Schools require success at a highly competitive entrance examination. It is mostly the children of rich people who send their children to private primary schools where standards are higher that often pass the entrance examination. The children of poorer parents cannot benefit much because they find it difficult to pass the entrance examination due to the poor standards in the public primary schools which they attend. The problem of inequality in the distribution of benefits of education is further aggravated at the University level where it is the children of rich people who attended Federal Government Schools that often gain admission into the universities because they perform better than the children of poor parents who attend other types of secondary schools. Some of the children of rich men who perform relatively badly still gain admission into universities through their connections or at worst are admitted into the Polytechnics or Colleges of Education. In essence,

the analysis confirms that access to good educational institutions at the lower levels is the major factor that determines who benefits from education in Nigeria.

### 3.2 The Distributional Impact of Health Expenditures Among Income Groups

In Nigeria, government owned hospitals exist side by side with private hospitals owned by individuals, communities and religious bodies. Since this research is on Federal Government Expenditures, the focus is therefore on health institutions owned by the Federal Government and other types of health services and amenities provided by it.

The main features of Federal Government health programmes were projects in the area of epidemic control, training and research. The specific projects were the expansion of Teaching Hospitals and take-over of existing ones, the expansion of Training Schools for various paramedical personnel and the establishment of an Institute of Public Health. Other projects were the establishment of necessary infrastructure for the control of malaria throughout the country, provision of supporting health services chiefly concerned with pharmaceutical and drug manufacturing laboratories, and medical research.<sup>4</sup>

Government expenditures on health is presented in Table 8.9. From the table, it can be seen that

TABLE 8.9

Government Expenditures on Health by Programme

₦ MILLION

Programme	Current	Capital	Total
Teaching Hospital	40.0	41.89	81.89
Comm. Health Service	6.4	6.7	13.1
Total	46.4	48.59	94.99

Source; Estimated from Current and Capital Estimates of the Federal Republic of Nigeria.

government current and capital expenditures on health amounted to ₦94.99 million. The major capital project was the establishment of Teaching Hospitals at the cost of ₦41.89 million approximately 86% of the total capital expenditures of the Federal Government health programmes.

Health expenditures benefit individuals and the community at large. For the purpose of determining what cost is to be allocated to each category of beneficiary, health expenditures for teaching hospitals are regarded

as benefiting individuals who received medical attention while health expenditures on epidemic control, supporting health programmes and research are regarded as benefiting the community at large. In the 1976/77 fiscal year, an estimated amount of N81.39 million was spent on individuals while about N13.1 million was spent on the community at large.

The next aspect in the analysis is the valuation of benefits. To obtain this, the total cost of the capital projects was discounted and the estimate of one year's benefit was added to the current expenditures. The estimated benefits from health expenditures by major beneficiary groups is presented in Table 3.10.

TABLE 3.10

The Distribution of Benefits from Health by  
Major Beneficiary Groups. N MILLION

Beneficiary Group	Benefits
Individuals (Health care delivery)	44.3
Community	7.14
<b>TOTAL</b>	<b>51.74</b>

Source: Calculated from table 3.9

The final phase in the analysis is the distribution of benefits of health among income-groups. In order to obtain allocators for the distribution of benefits among the income-groups, estimates of the average cost of drugs for out-patients and the average cost of maintaining an in-patient in the hospital per day were calculated using Ahmadu Bello University Teaching Hospital, Zaria, as case study.

For out-patients, the average cost of drugs for each patient is estimated at ₦2.50 per day. In the case of in-patients, the estimate of the cost per day per patient is as follows.

(a) Accommodation	-	Free
(b) Feeding	-	₦4.50
(c) Drugs	-	₦2.50
(d) Cards	-	Free
		<u>      </u>
T O T A L	=	₦7.00
		=====

This total estimate for maintaining an in-patient per day does not take into consideration the cost of maintaining in-patients who receive special medical attention such as cases of surgery, cancer, tuberculosis and psychiatric patients. The estimated cost of meal per day per patient does not also take into consideration, the cost of feeding patients on special diets. The overall estimate was made by considering only what can be regarded as the "normal cost" typical of most patients.



It is recognized that the cost of maintaining patients vary from hospital to hospital. Ahmadu Bello University Teaching Hospital can be regarded as a typical case in between the most expensive and the least expensive. On the basis of the estimate of the average cost of drugs for out-patients and the average cost of maintaining an in-patient in the hospital per-day, allocators for estimating the benefits of health among income-groups was calculated from Table 7.13. The result is presented in Appendix D. 1.

So far, the analysis has been concerned with benefits of health-care delivery. In the case of health expenditures that benefit the community at large, benefits are allocated among income-groups in proportion to the number of beneficiaries in each income-group. This method of distribution of benefits is used because such benefits are enjoyed collectively. The distribution of benefits from health by income-groups is presented in Table 8.11. It is obtained that, the bottom 20 percent income-earners received 38.8 percent of benefits, the middle 40 percent income-earners, received 34.4 percent of benefits, while the top 10 percent income-earners, received 4.1 percent of benefits. The pattern of distribution of health benefits is in favour of the poor. Two factors are probably responsible for this pattern of distribution. The first is that,

TABLE 8.11

The Distribution of Benefits from Health Among Income Groups

Income-Group	Benefi- ciaries	% of Bene- ficiaries	Health Care	Comm. Health	Total M m	% of Bene- fits
0-1,000	341	14.1	14.7	2.2	16.9	32.6
1,001-2,000	521	21.4	10.1	1.1	11.2	21.6
2,001-3,000	523	21.5	7.4	1.4	8.8	17.0
3,001-4,000	435	17.9	7.2	1.3	8.5	16.4
4,001-5,000	216	8.9	2.5	0.5	3.0	5.8
5,001-6,000	157	6.5	2.3	0.3	2.6	5.0
6,001 and above	236	9.7	0.6	0.3	0.9	1.7
	2,429	100.0	44.8	7.1	51.9	100.0

the higher income-earners probably receive medical attention from private hospitals and clinics than the lower income-earners. These private hospitals provide special services for which they are in the position to pay for. The second factor is that, those in the lower income-groups are more likely to be hospitalized because of poor feeding and unhygienic environment which they live in.

### 8.3 The Distributional Impact of Housing Expenditures Among Income-Groups

Expenditure on housing, started to receive more attention as from the last defunct civilian regime. The previous governments have traditionally left this field almost wholly to private efforts, restricting itself to the provision of residential quarters for its officers. These quarters were built under the Ministry of Works for their staff in their various locations, including the Government Reservation Areas (GRAs) in the capital cities and other government formations across the country where federal establishments exist. These staff quarters were very few but during the civilian administration, they became more widespread because of the government's housing policy.<sup>5</sup> Those officially entitled to be compulsorily quartered are members of the police and armed forces, fire service and the medical. Other public officers can be quartered if quarters are available. Generally, allocation into the quarters is based on the status of the officer and availability of suitable quarter commensurate with status. Those who occupy government quarters pay a fixed percentage mostly through their employers.

Government participation in housing also took the form of the development of a few lower and middle classes housing estates consisting of the one, two, three and

four bedroom types. These houses built by the Federal Housing Authority (FHA), are located in state capitals. The houses are sold to public servants or the general public on an owner-occupier basis. Allocation is based on the applicant's interest in a particular type of house. Repayment which is on monthly basis depends upon the type of house occupied and the administration is through the housing authority itself. During the Shagari administration, a number of owner-occupier houses were built in the states. These houses were sold at subsidized rates, disbursed by the Federal Mortgage Bank and Staff Housing Loan Scheme. Any civil servant is entitled to obtain a loan to build or purchase land for building, provided his or her appointment is confirmed on a pensionable basis. Loan is based on the basic salary of the officer subject to a maximum of seven years annual salary.

Federal Government current and capital expenditure on housing amounted to N284.61 million in 1976/77 fiscal year. The details of the expenditures are presented in Table 8.12. Capital expenditures for housing consisted of loans to Federal Mortgage Bank amounting to N22.5 million, and Federal Government Staff Housing Scheme amounting to N5 million, and National Housing Programmes phases I and II involving N231.98 million.

TABLE 8.12

Federal Government Current and Capital  
Expenditures on Housing

	Current	Capital	Total N'm
Loans	2.66	27.5	30.16
Federal Housing Scheme	22.47	231.98	254.45
	25.13	259.48	284.61

Source: Estimated from Current and Capital  
Estimates of the Federal Republic of  
Nigeria.

The beneficiaries of housing are essentially those who obtained loans to build houses and those occupying government housing units. Total benefits in terms of the loan and the cost of the building are allocated wholly to the beneficiaries of the year of analysis since no other person can share in the benefits. This is why the benefits of housing have not been capitalised as in other cases.

Next in the analysis is the distribution of benefits among income-groups. This is undertaken by analyzing the benefits from each expenditure item separately. In order to be able to analyze loans which were administered by the Federal Mortgage Bank, efforts were made to obtain data about the number of beneficiaries, the value of their loans and their respective income-groups. These efforts

did not yield any dividends because the Bank refused to disclose such information on the ground that it is against the banking ethics. It was therefore considered that a thorough examination of the conditions for obtaining the loan would be the next best avenue through which the income-groups of the beneficiaries can be determined. A thorough examination of the conditions of granting the loan and conditions for repayment show that they disfavour the lower and middle income-groups. Every applicant is expected to have a minimum of N500 in a savings account with the bank at the time of application for a mortgage loan. The three types of loans granted are social loans to cover private residential units costing more than N65,000, and commercial loans for private estate or mixed development. Table 8.13 presents the monthly repayment sums for a loan of N10,000.

TABLE 8.13

Monthly Repayment Table of a Loan of N10,00  
(Capital and Interest)

Annual Rate per Annum	5 yrs	10 yrs	15 yrs	20 yrs
6%	198.00	113.00	86.00	73.00
7½%	206.00	122.00	95.00	82.00
9%	214.00	130.00	103.00	-
9½%	217.00	133.00	106.00	-
10%	220.00	136.00	110.00	-
11%	225.50	141.00	116.00	-

Source: Federal Mortgage Bank of Nigeria: Information and Requirements for Loans and Savings, p. 19.

A loan of N10,000 is repayable in a maximum of twenty years at N73.00 per month. Such an amount is too burdensome for the lower and middle income groups. Apart from these conditions of repayment, the legal and survey requirements are so stringent that they cannot be met by the lower and middle income earners. The major beneficiaries of these loans are therefore most likely to be in N6,000 per annum and above income-group.

Next is the distribution of the benefits from the Federal Housing Scheme among income-groups. According to the housing policy, repayments are based on the cost of the houses. The distribution of benefits among income-groups is based on the result of the survey presented in Appendix D.1. The distribution of benefits from Federal Housing is presented in Table 8.14 and the Lorenz Curve is presented in figure 8b. From the Lorenz curve, it is found that the Gini coefficient of the distribution of housing benefits is 0.17. It is also obtained that the bottom 20% of income earners have benefits of about 12%, the middle 40% income-earners have benefits of 34% while the top 10% have benefits of about 19%. This is an evidence of low-inequality in the distribution of benefits of housing. When the benefits from loans administered by the Federal Mortgage Bank is added to the overall benefits of housing, the inequality in the distribution of benefits is further aggravated.

TABLE 8.14

The Distribution of Benefits of Housing by  
Income Groups

Income Group	Households		Persons		Benefits	
	Number	%age	Number	%age	Value in N'm	%age
0-1,000	11	7.5	35	3.6	19.6	7.7
1,001-2,000	14	9.5	104	10.6	17.6	6.9
2,001-3,000	27	18.4	139	19.2	37.7	14.3
3,001-4,000	40	27.2	272	27.7	64.9	25.5
4,001-5,000	26	17.7	160	17.2	40.7	16.0
5,001-6,00	18	12.2	106	10.3	43.0	16.2
6,001 & above	11	7.5	58	5.9	31.0	12.2
	147	100	983	100	254.5	100

Source: Estimated by the researcher on the basis of the result of the survey on housing.

The inequalities in the distribution of benefits of housing is a result of many factors. First, the administration of the housing scheme rests in the hands of top administrators in the civil service. These people are more likely to approve the applications of their counterparts who belong to the same income and educational level (see Table 7.14) than lower income-earners, who are also less educated.



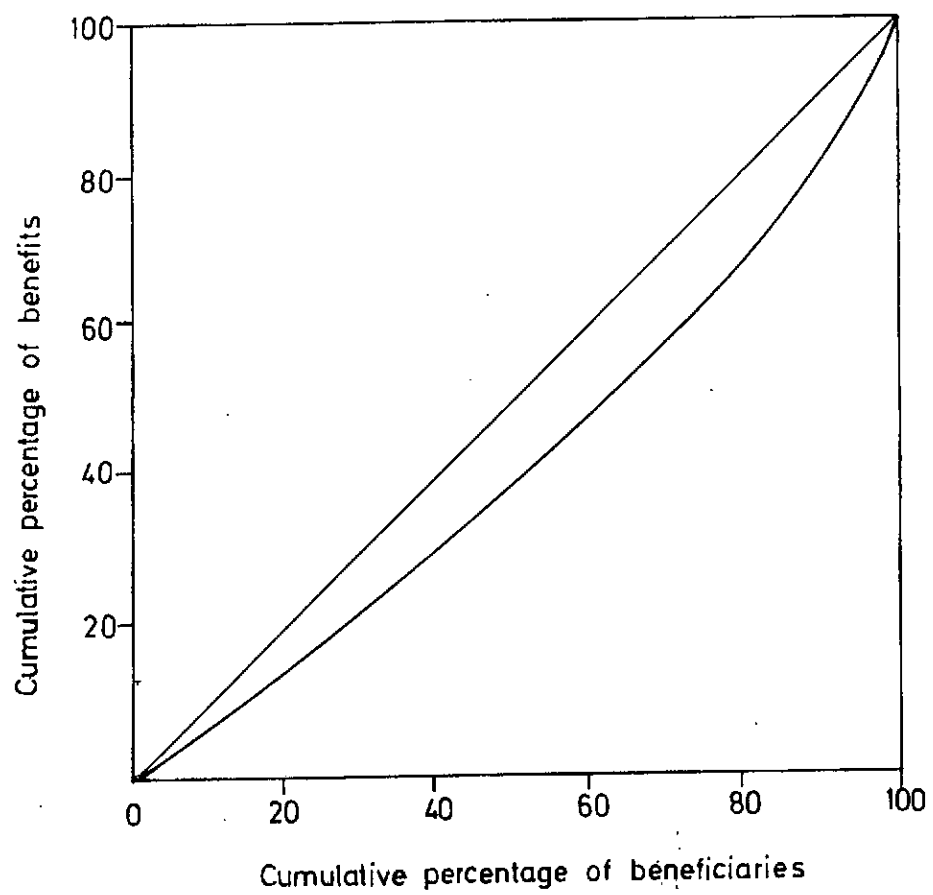


Fig.8.b LORENZ CURVE SHOWING THE DISTRIBUTION OF BENEFITS OF HOUSING

The second factor is that although the one and two bedroom types are meant for the lower income earners, the top civil servants use their positions to secure these houses which they sometimes sub-let to other people. A third contributing factor is the relatively small number of the one-bedroom type. The smallness of the number means that most of the lower income earners cannot benefit from the housing scheme. A fourth factor is the conditions for granting and repayment of the mortgage loan which makes it impossible for the lower and middle income earners to benefit. These are the factors to look into if government expenditure on housing is to serve as a means of redressing income inequalities.

#### 8.4 The Distributional Impact of Power Expenditure Among Income Groups

The National Electric Power Authority (NEPA) is the only producer of electricity in Nigeria. This body was formed in 1972 from the amalgamation of Electricity Corporation of Nigeria (ECN) and the Niger Dams Authority (NDA).

The major programmes of this sector are power generation, transmission extension and improvements for area supply and rural electrification. Government total expenditure for power was N161.95 million in

1976/77 of which N1.95 million was for current expenditures and N160 million was for capital expenditures. The division of total expenditure into programmes in order to identify beneficiaries is not necessary in this case since each programme is an input to the other with the ultimate aim being the supply of electricity.

In order to obtain the benefits of power the total cost of capital projects is discounted appropriately and the benefits for a year is added to the current expenditures. The estimated benefits of power for 1976/77 amount to N19.52 million.

Expenditures for power benefit industrialists and commercialists as well as households all of which constitute the major consumers of electricity. The benefits from power expenditure is therefore allocated to these consumers of electricity in proportion to their consumption of total electricity generated. The data used for the allocation is presented in Appendix D.2. The allocation of benefits of power among major beneficiaries is presented in Table 8.15.

The allocation of benefits of power among income groups is undertaken by considering each major consumer of electricity. In order to be able to distribute the benefits of power consumed by industrialists and commercialists among income-groups, one must have certain

TABLE 8.15

Allocation of Benefits of Power among Major Consumers  
(Million Naira)

Major Consumers	1976/77
Residential	8.11
Commercial and Industrial	11.37
Street lighting	0.04
Total	19.52

Source: Estimated by the researcher

specific data about the major shareholders in these establishments which would facilitate such an analysis. The specific data that will facilitate distribution among income groups should include data on the distribution of shareholders and the value of their shares on income-group basis. These data could not be obtained because the major industrial and commercial establishments refused to provide a detailed list of their shareholders from whom these information can be obtained. In the light of this, the benefits of power consumed by industrialists and commercialists were not analysed. It is however reasonable to assume that majority of the shareholders are likely to belong to the high income-groups who have the knowledge and money

to buy shares. Many poor Nigerians do not know the importance of owning shares and the few that know have no money for the purchase of shares.<sup>6</sup>

The only benefits of power distributed among income groups are those consumed by households. Estimates of the distribution is obtained on the basis of the survey of which result is presented in Appendix D.1. The estimated benefits by income-groups is presented in Table 8.16 and the Lorenz curve is presented in figure 8c. From the Lorenz curve, it is estimated that the Gini coefficient of the distribution of power benefits is 0.37.

It is also estimated that the bottom 20 per cent income earners have benefits of only 9 per cent, the middle 40 per cent income earners received benefits of about 31 per cent. While such distribution of benefits of electricity consumption is inequitable, a number of factors might be responsible for this. Electricity consumption depends partly on income and partly on availability of supply in the

TABLE 8.16

The Distribution of Benefits of Electricity Consumption  
by Income Groups

Income-Group	Households		Persons		Benefit	
	Number	%age	Number	%age	Value in N'm	%age
0-1,000	29	9.5	252	11.7	0.4	4.9
1,001-2,000	57	18.6	479	22.3	0.8	9.3
2,001-3,000	57	18.6	467	21.8	1.2	15.3
3,001-4,000	54	17.6	383	17.8	1.4	17.6
4,001-5,000	34	11.1	197	9.2	0.9	11.1
5,001-6,000	27	8.8	143	6.7	1.1	13.6
6,001-7,000	48	15.7	225	10.5	2.3	28.1
TOTAL	306	100	2,146	100	8.1	100

Source: Estimated by the researcher on the basis of  
the result of the survey on electricity  
consumption.

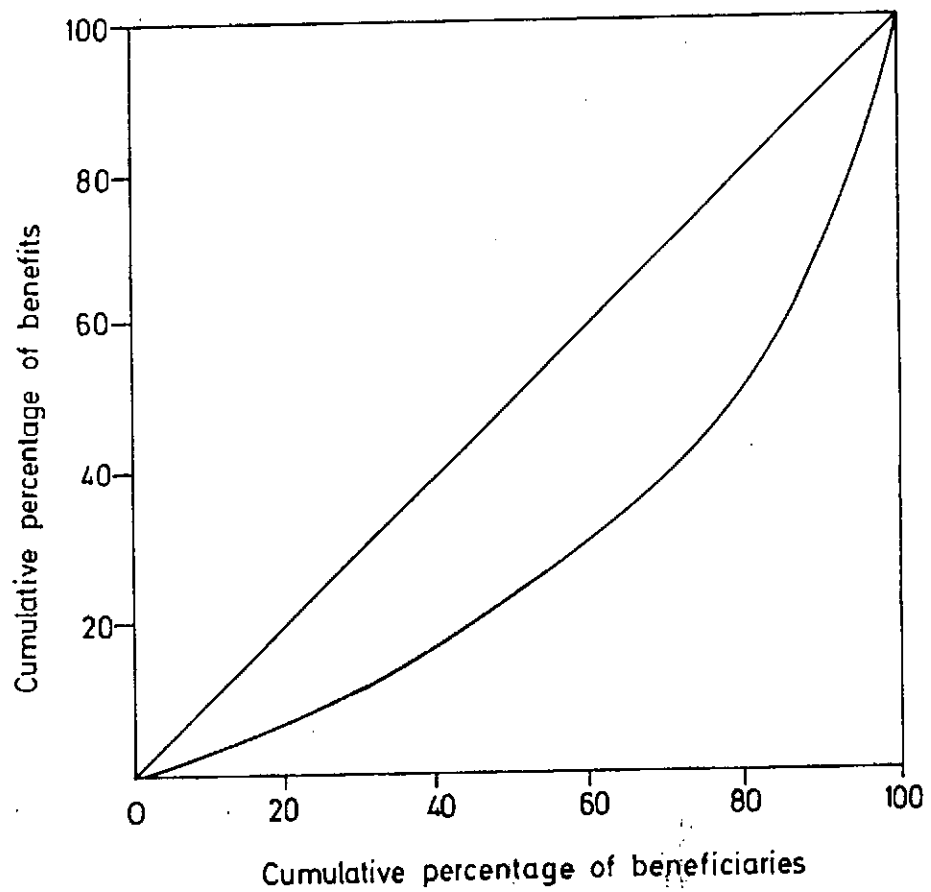


Fig. 8.c LORENZ CURVE SHOWING THE DISTRIBUTION OF BENEFITS OF POWER

town and area of residence. Since electricity is more available in the urban areas than in the rural, it is possible for some-one in the higher income-group who resides in the rural area not to enjoy electricity. It is equally possible for low income-earners in the urban areas to enjoy electricity by living in rented houses which have electricity supply. In view of the fact that there are more people in the rural areas (where electricity supply is less), than in the urban areas (where electricity is more), it should therefore be expected that the distribution electricity supply in Nigeria is the major factor which determines who benefits from electricity. Since the distribution of electricity is urban-bias, where the richer population reside, the pattern of distribution of electricity consumption by income-group as revealed in Table 8.16 should be expected.

#### 8.5 The Distributional Impact of General Services Expenditures Among Income-Groups

General services consist of defence and security and general administration. The major expenditure areas in this sector are defence, police and prisons, external affairs, custom and excise, federal board of inland revenue, establishment, judiciary, federal fire services and immigration.



Government current and capital expenditures for general services for 1976/77 fiscal year were ₦995 million and ₦1,059 million respectively, totalling ₦2,054 million. The expenditures of this sector produce "collective goods" which benefit every citizen of the country. It is therefore unnecessary to divide the expenditure of this sectors into programmes for the purpose of analysis.

In order to obtain benefits of general services, the cost of capital projects are discounted and appropriate proportion is added to the current expenditure. On this basis, the total benefits of general services is estimated as ₦1,111.3 million.

The allocation of benefits from general services was on the assumptions that the rich benefit more because they have more property to protect. Benefits are therefore allocated among income-groups according to income. This is the only criterion that truly reflects the Nigerian situation. The distribution of benefits from general services by income-group is presented in Table 8. . and the Lorenz curve in Figure 8d. From the Lorenz curve, it is obtained that the Gini coefficient is 0.35. It is also estimated that the lowest 20 percent income-earners obtained only 6 percent benefits, the middle 40 percent income-earners obtained 31 percent benefits, while the top 10 percent income-earners obtained 24 percent of

TABLE 8.17

The Distribution of Benefits from General Services  
By Income-Groups

Income-Group	Beneficiaries		Benefits in N'm
	Number	Stage	
0-1,000	252	11.7	21.1
1,001-2,000	479	22.3	123.4
2,001-3,000	427	21.8	200.0
3,001-4,000	383	17.8	230.0
4,001-5,000	197	9.2	152.2
5,001-6,000	143	18.7	134.5
6,001-& above	225	10.5	250.5
	2,146	100.0	1,111.3

Source: Estimated by the Researcher.

benefits.

8.6 The Distribution of Benefits from Federal  
Government Expenditures by Income-Groups

First, the distribution of total benefits from Federal Government expenditures is obtained by summing up all the expenditure categories analyzed excluding expenditure for general services.

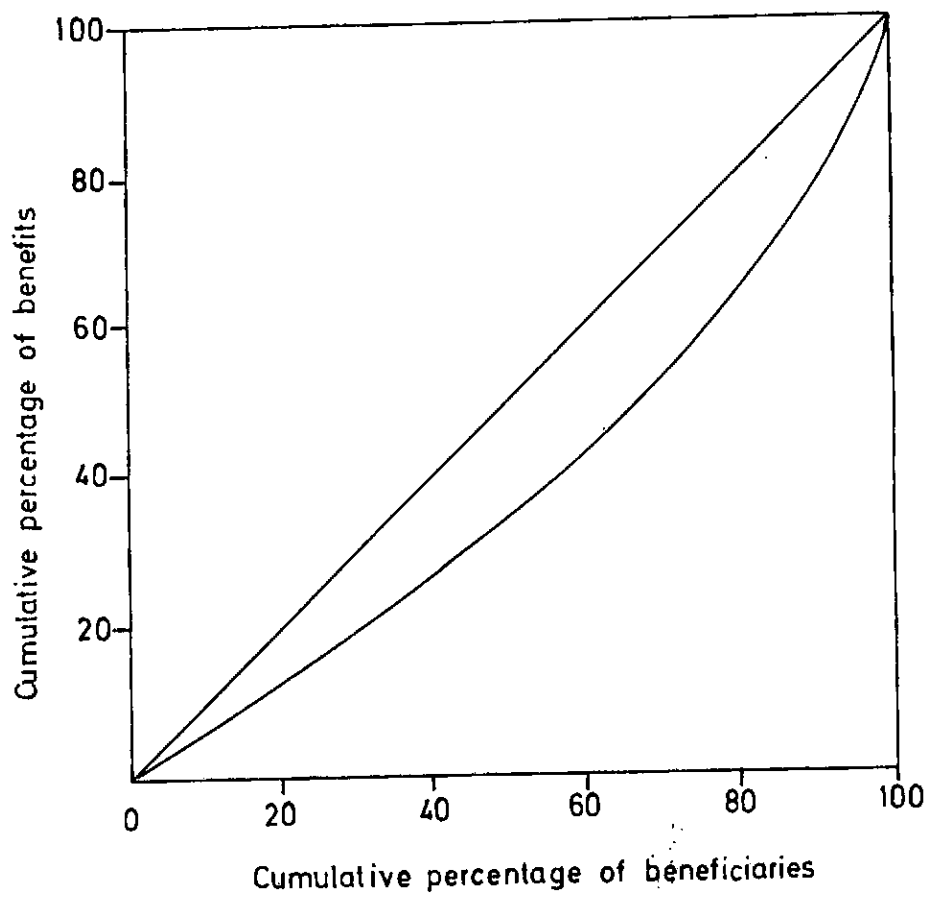


Fig. 8.d LORENZ CURVE FOR TOTAL BENEFITS EXCLUDING GENERAL SERVICES

The result is presented in Table 8.18 and the Lorenz curve is presented in figure 8e. The estimated Gini coefficient is 0.20. It is estimated that the bottom 20 per cent income earners received 15 per cent of benefits, the middle 40 per cent income earners, received 30.6 per cent benefits while the top 10 per cent income earners, received 22.7 per cent of benefits. This is a regressive (i.e. pro rich) benefit distribution pattern.

Next the distribution of total benefits from Federal Government expenditure including general services is obtained. This result is presented in Table 8.19 and the Lorenz curve is presented in Figure 8f. From the Lorenz curve it is estimated that the Gini coefficient of benefit distribution is 0.25. It is also estimated that the bottom 20 per cent income-earners received benefits of 11.3 per cent, the middle 40 per cent income-earners, received 33.4 per cent benefits and the top 10 per cent income-earners, received 22.3 per cent benefits. This is a regressive (i.e. pro-rich) benefit distribution pattern.

TABLE 8.18

The Distribution of total Benefits from Federal  
Government Expenditures by Income-Groups Excluding  
General Services (Nm)

Income-Group	Education	Health	Housing	Power	Total	%age	No.	%age
0-1,000	75.8	16.9	19.6	0.4	112.7	11.7	774	12.8
1,001-2,000	86.0	11.2	17.6	0.8	115.6	12.0	1175	19.1
2,001-3,000	89.0	8.8	37.7	1.2	136.7	14.1	1242	20.1
3,001-4,000	85.7	8.5	64.9	1.4	159.8	16.5	1157	18.8
4,001-5,000	69.6	3.0	40.7	0.9	114.2	11.8	638	10.3
5,001-6,000	52.2	2.6	43.0	1.1	98.9	10.2	466	7.6
6,001 & above	194.8	0.9	31.0	2.3	229.0	23.7	702	11.3
	652.5	51.9	254.5	8.1	966.9	100.0	6154	100.0

Source: Estimated by the Researcher.

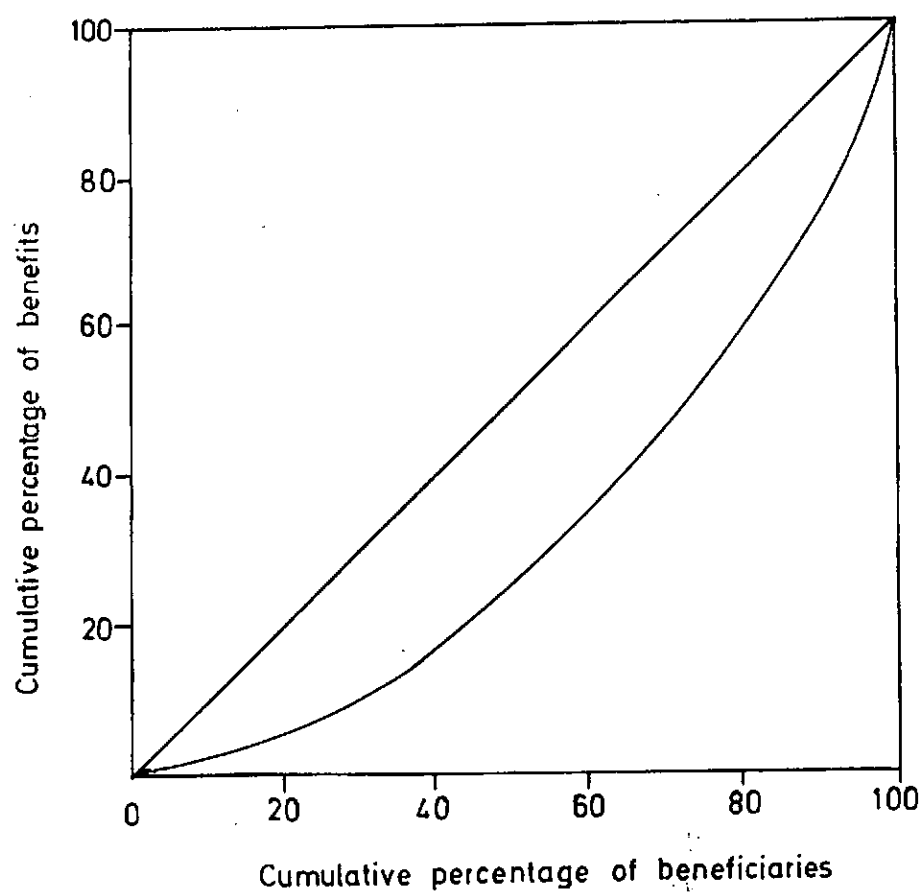


Fig.8.e LORENZ CURVE FOR TOTAL GENERAL SERVICES

TABLE 8.19

The Distribution of total Benefits from Federal  
Government Expenditures by Income-Groups;

Income-Group	Education	Health	Housing	Power	General Service	Total	%age	Number	%age
0-1,000	75.8	16.9	19.6	0.4	21.1	133.8	6.4	1026	12.4
1,001-2,000	86.0	11.2	17.6	0.8	123.4	239.0	11.5	1654	19.9
2,001-3,000	89.0	8.8	37.7	1.2	200.00	336.7	16.3	1709	20.6
3,001-4,000	85.7	8.5	64.9	1.4	250.0	390.5	18.7	1540	18.6
4,001-5,000	69.6	3.0	40.7	0.9	152.2	266.4	12.8	8835	10.1
5,001-6,000	52.2	2.6	43.0	1.1	134.5	233.4	11.2	609	7.3
6,001 & above	194.8	0.9	31.0	2.3	250.0	479.0	23.1	927	11.2
	652.5	51.9	254.5	8.1	1111.3	2078.3	100.0	8300	100.0

Source: Estimated by the Researcher.

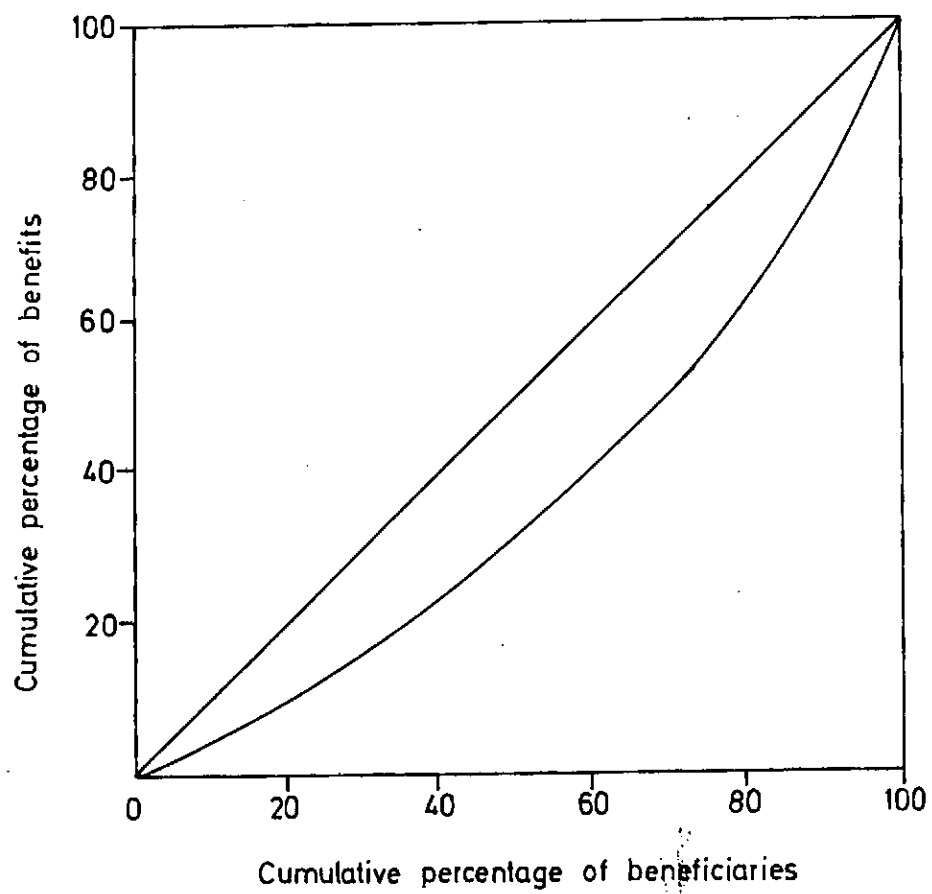


Fig. 8.1 LORENZ CURVE FOR TOTAL BENEFITS



FOOTNOTES

1. Federal Ministry of Economic Development, Third National Development Plan, 1976 - 80, Vol. 1, p. 246.
2. Ibid.
3. Emmanuel C. Anusionwu and V.P. Diejomaoh, "Distributive Incidence of Public Education Subsidy In Nigeria", West African Economic Journal Vol.1, No. 1, 1980.
4. Federal Ministry of Economic Development, op.cit, pp. 261 - 271.
5. Ibid, p. 306.
6. As a matter of fact, most Nigerians hardly subscribe to shares. Shareholding in Nigeria has generally been dominated by foreigners until 1972 when the then military government under the leadership of General Yakubu Gowon, promulgated the Nigerian Enterprises Promotion Decree. This Decree which was later amended in 1977 increased Nigerias participation in the economic and industrial activities of the country and consequently increased Nigerians holdings of shares in commercial and industrial enterprises.

CHAPTER NINECONCLUSION & POLICY RECOMMENDATIONS

This research has focussed on the distributional impact of government expenditures by analyzing 1976/77 Federal Government expenditures. The first aspect of the research, deals with the growth and structure of government expenditures. The second aspect analyses the impact of government expenditures from the perspective of regions. The last aspect estimates the distribution of benefits from government expenditures among income-groups. It is necessary to caution that the results of studies on the impact of government expenditures generally depend upon the various assumptions made in a particular study. This one is no exception. The important factor is whether these assumption can be justified from the knowledge of the economy. Another important consideration about the results of such studies is that, the distribution of benefits among the various income-groups compares the benefits of an average individual in one income-group with the benefits of another average individual in another income-group. There is no doubt that there are variations within each income-group. These factors among others which indicate the difficulties involved in the estimation of the distributional impact of government expenditures, point to the fact that the quantitative manner in which the results have been presented does not necessarily mean that the results were obtained with

utmost accuracy. Hence, the results should be viewed with some degree of caution.

One of the findings of the research concerns the structural pattern of government expenditures. It was found that while the size of the government sector rose during the period under review, the proportion of total expenditures devoted social services did not show any tendency to rise with the expenditures. If government expenditure is to be made more progressive, it is recommended that an increasing proportion of government expenditures should be devoted to social services in view of the fact that social services generally contribute more to the income of lower income-groups to that of the higher income-groups.

A second finding of this research is related to the structural pattern of government expenditure. It was found that the proportion of government expenditures which contributes directly to personal income in the form of employment and interest receipts decline over the years, an indication that government expenditures is increasingly been devoted to the provision of goods and services. Put differently, the government is now using less men to produce more goods and services. This phenomenon can be adduced to the fact that in the earlier years of independence, the government used direct labour to execute a number of its projects. In recent years, the complex and technical nature of the projects necessitated their being contracted out to specialist for execution. The implication of this is that the method of production, whether capital or labour intensive is not

determined by the government but by the contractors who handled its projects. In order to reduce unemployment and income inequality, government should resort to direct execution of its projects. Such a change in policy will enable them use a more labour intensive method of production.

A third important result of the research is that government expenditures have been inequitably distributed among the regions of Nigeria. Considering the large disparities that still exist between the regions in terms of economic activities, it is desirable for the government to make deliberate efforts to locate projects in a manner to ensure a proper balance between the regions. Such a policy of regional balance will represent a step towards securing a reduction in poverty and inequality.

When the distribution of government expenditures between urban and rural areas is considered, it was found that government expenditures have largely been urban-biased. The implication of this policy is that rural-urban migration is encouraged, leading to stagnation of economic activities in the rural areas. Since majority of the people live in the rural areas and derive their livelihood from agriculture, any policy to reduce inequality should be rural-biased. It is therefore recommended that government expenditures policy should deliberately be geared towards the rural areas and agriculture in particular.

Considering the overall pattern of the distributional impact of government expenditures, it was found that it is regressive, that is pro-rich. Thus,

government expenditures in Nigeria are responsible for perpetuating income inequality, contrary to government declared objectives in successive development plans since independence. The result of the overall pattern of benefits does not lead us to any meaningful policy recommendation unless the result of each expenditure sector is considered separately.

The benefits of education is inequitably distributed in favour of the rich. Instead of education contributing to a reduction in inequality, the result has shown that the reverse is the case in Nigeria. This result corroborates the results of related studies for Nigeria by Umo,<sup>1</sup> and Anusionwu and Diejomaoh.<sup>2</sup> Unequal access to good quality primary and secondary school is possibly responsible for this finding. In order to make education a means of reducing income inequality, standards in all private and public primary and secondary schools should be uniform as they are in the Polytechnics, Colleges of Education and the Universities. This can be achieved by ensuring that all primary and secondary schools are placed under the same management. When a body is set up to manage all the institutions throughout the state, variations in the standards will be minimized. In other words, private and special government institutions which cater for the interest of privileged few should be abolished, giving way to institutions governed by one body throughout the state. Under such a situation, there will be no tendency for some institutions to be better equiped and staffed than the others. All the children of both the rich and poor in the state are bound to attend the same type of schools, efforts will therefore be made by those in authority to ensure that standards are high and uniform throughout the state.

The present policy by the military of introducing school fees in whatever manner of disguise will tend to perpetuate inequalities through education policy. This is because, poor parents will find it difficult to send their children to schools. It is therefore recommended that education should be free at least in the primary and secondary levels. These are the levels of education which graduates have been shown to be most crucial to the development of a country in studies on education and development.

Considering the fact revealed in the study that the children of educated parents benefits more from education than the children of uneducated parents in all the levels of education, it is hereby recommended that the UPE introduced in 1976 should be vigorously pursued and extended to the secondary level in the form of Universal Secondary Education (USE). This is the only way by which the children of uneducated parents can increase their benefits from education.

The benefits of health expenditures has been shown to be progressive, that is pro-poor. One major factor responsible for this pattern is that government programmes in health are not designed exclusively for particular income-groups, hence the income-group that is large in number gets larger amounts of benefits than the others. A look at the establishments of health institutions in Nigeria show that they are disproportionately located in urban areas, with poor facilities and high doctor per-patient ratio. To enable expenditures for health be a better means of reducing inequality, more health institutions should be

located in the rural areas where most of the population reside. Efforts should also be made to ensure that they are better equiped and services are rendered free to the patients. Alternatively, patients could be charged minimum fees for services rendered in order to prevent undue waste.

In the case of housing, the research has shown that they benefit mostly the higher income-groups due to the manner of its administration. The number of houses built show that the government cannot cope with the demand. The cost of production, the condition of granting and repayment of loans and the personnel involved in the allocation of houses built, point to the fact that only higher income-earners can benefit from government housing expenditures. There is an urgent need to change policy. Government continued involvement in the direct construction of houses means that the total number of houses built will remain small in relation to demand and that only the rich and highly placed can benefit through their connections with government officials. Hence there is need for the government to encourage individuals to build their own houses to their own specifications, in areas of their choice, by providing the necessary personnel and technical assistance. Loans should be tailored to particular target income-groups, mainly the lower income-groups. No lump-sum amount should be given to beneficiaries but rather, the amount given should be related to the progress made during construction of the houses. The interest rates which are generally too high should be reduced to that level meant to pay back service charges alone.

The benefits from power has also been shown to be inequitably distributed in favour of the rich. The major factor responsible for this unfavourable distribution is the disproportionate provision of electricity in the urban centres to the neglect of the rural areas. Income is not a major factor that determines the benefit from electricity but availability of supply in the area of residence. A major policy change of deliberate extension of electricity supply to the rural areas is hereby recommended. While this will enable the majority poor in the rural areas to benefit, it will also help to stop rural-urban migration since the availability of electricity is likely to increase the establishment of industries in these areas.

Finally, this thesis on the distributional impact of government expenditures concentrated on analyzing only those expenditures whose beneficiaries can easily be identified excluding a large portion of government expenditures. The thesis also focussed on the distributional impact of these expenditures from the perspectives of regions and income-groups. Further research is therefore necessary to study the distributional impact of other types of government expenditures not as they affect income-groups and regions alone but in terms of other variables such as sex, occupation, factor-shares and so on. Such a research when undertaken will throw more light on the implications of government expenditure policy and help to compliment this modest efforts in the quest for ensuring a better income distribution in Nigeria.



FOOTNOTES

1. Joe U. Umo, "Rates of Return to Investment in Nigerian Higher Education", West African Economic Journal Vol. 1 No. 2, 1982.
2. Emmanuel. C. Anusionwu and V.P. Diejomaoh, "Distributive Incidence of Public Education Subsidy in Nigeria," West African Economic Journal, Vol. 1 No 1, 1981

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# APPENDIX A.1

## FUNCTIONAL ANALYSIS OF FEDERAL GOVERNMENT EXPENDITURE

1959/60 - 1979/80 N'million

YEAR FUNCTION	1959/60			1960/61			1961/62		
	CURRENT	CAPITAL	TOTAL	CURRENT	CAPITAL	TOTAL	CURRENT	CAPITAL	TOTAL
General Services	30.3	18.6	38.9	38.1	9.2	47.3	41.5	10.5	52.0
Social and Community Services	19.5	16.1	35.6	18.5	12.3	10.9	23.5	11.1	34.6
Education	9.2	1.8	11.0	9.4	1.7	11.2	10.7	3.6	14.3
Health	3.1	2.5	5.6	3.1	1.4	4.6	6.9	1.2	8.1
Other Social and Community Services	7.2	11.8	1.9	3.0	9.2	15.2	5.9	6.3	12.2
Economic Services	11.0	32.2	43.1	11.3	43.8	55.6	15.0	38.2	53.2
Unallocated	11.5	15.3	46.8	11.2	33.9	45.1	6.8	15.2	22.0
Total	72.4	72.1	144.5	79.7	99.3	179.0	86.8	75	161.8



APPENDIX A.1 (Cont'd)

F U N C T I O N	1962/63			1963/64			1964/65		
	CURRENT	CAPITAL	TOTAL	CURRENT	CAPITAL	TOTAL	CURRENT	CAPITAL	TOTAL
General Services	40.3	18.2	58.5	58.5	24.8	70.3	60.2	26.7	86.9
Social and Community Services	21.3	9.7	30.9	16.7	8.0	24.8	21.4	16.9	38.2
Education	10.2	5.4	15.6	6.8	3.7	10.5	8.1	10.5	18.6
Health	8.9	1.5	10.4	9.4	1.9	11.4	11.2	1.8	13.0
Other Social and Community Services	2.2	2.8	5.0	0.5	2.4	2.9	2.1	4.6	2.4
Economic Services	12.5	32.8	45.2	12.1	27.3	39.4	15.1	25.8	40.9
Unallocated	121.0	29.4	150.4	123.2	58.9	182.1	152.6	47.0	199.6
Total	195.1	90	285	197	119.2	316.6	249.3	116.4	365.7

APPENDIX A.1 (Cont'd)

F U N C T I O N	1965/66			1966/67			1967/78		
	CURRENT	CAPITAL	TOTAL	CURRENT	CAPITAL	TOTAL	CURRENT	CAPITAL	TOTAL
General Services	67.7	20.9	88.6	62.1	14.1	76.2	76.2	83.9	73.8
Social and Community Services	23.7	13.5	37.1	31.1	14.5	45.7	21.4	10.5	31.9
Education	7.8	5.0	12.8	16.9	10.3	27.3	6.2	7.6	13.8
Health	13.5	0.5	14.0	12.0	0.5	12.6	13.3	0.5	14.3
Other Social and Community Services	2.4	8.0	10.4	2.2	3.7	5.9	1.4	2.4	3.8
Economic Services	30.4	52.6	82.9	17.3	47.5	64.3	17.4	56.8	74.2
Unallocated	158.6	30.9	189.5	170.7	55.8	226.5	155.7	20.1	175.8
Total	280.2	118.0	398.2	281.3	131.9	413.2	278.4	161.3	439.7

APPENDIX A.1 (Cont'd)

F U N C T I O N	<u>Y E A R</u> 1968/69			<u>1969/70</u>			<u>1970/71</u>		
	CURRENT	CAPITAL	TOTAL	CURRENT	CAPITAL	TOTAL	CURRENT	CAPITAL	TOTAL
General Services	137.5	79.1	216.6	320.0	118.0	438.0	343.4	62.4	405.8
Social and Community Services	23.3	10.0	33.3	15.8	3.4	19.2	12.0	6.2	24.2
Education	15.0	5.4	20.6	3.2	3.0	6.2	1.9	1.6	3.5
Health	7.2	0.3	6.8	11.8	0.2	12.0	2.0	4.0	6.0
Other Social and Community Services	0.9	4.3	5.2	0.8	0.2	1.0	14.1	0.6	14.7
Economic Services	19.3	45.3	64.5	20.8	35.2	56.0q	25.8	40.8	63.6
Unallocated	143.8	37.8	181.6	305.6	18.4	324.0	386.4	30.4	416.8
Total	323.8	171.5	495.3	662.2	175.0	837.2	773.6	136.0	913.4

APPENDIX A.1 (Cont'd)

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F U N C T I O N	1971/72			1972/73			1973/74		
	CURRENT	CAPITAL	TOTAL	CURRENT	CAPITAL	TOTAL	CURRENT	CAPITAL	TOTAL
General Services	247.5	94.4	341.9	454.3	133.8	588.1	570	199	763
Social and Community Services	79.6	38.5	109.1	31.1	40.4	71.5	36	50	86
Education	27.6	25.9	53.9	10.4	16.3	26.7	13	30	43
Health	11.7	5.3	17.0	13.3	16.6	34.9	20	10	30
Other Social and Community Services	31.3	7.3	38.6	2.4	7.5	9.9	3	10	13
Economic Services	44.2	177.9	222.1	52.4	249.5	301.9	60	276	336
Unallocated	303.4	57.9	361.3	675.3	130.5	805.8	90	242	332
Total	665.7	368.7	1,034.4	1,213.1	554.2	1,767.3	755	767	1,522

APPENDIX A.1 (Cont'd)

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F U N C T I O N	1971/72			1972/73			1973/74		
	CURRENT	CAPITAL	TOTAL	CURRENT	CAPITAL	TOTAL	CURRENT	CAPITAL	TOTAL
General Services	247.5	94.4	341.9	454.3	133.8	588.1	570	199	763
Social and Community Services	78.6	38.5	109.1	31.1	40.4	71.5	36	50	86
Education	27.6	25.9	53.9	10.4	16.3	26.7	13	30	43
Health	11.7	5.3	17.0	18.3	16.6	34.9	20	10	30
Other Social and Community Services	31.3	7.3	38.6	2.4	7.5	9.9	3	10	13
Economic Services	44.2	177.9	222.1	52.4	249.5	301.9	60	276	336
Unallocated	303.4	57.9	361.3	675.3	130.5	805.8	90	242	332
Total	665.7	368.7	1,034.4	1,213.1	554.2	1,767.3	755	767	1,522

APPENDIX A.1 (Cont'd)

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F U N C T I O N	<u>1974/75</u>			<u>1975/76</u>			<u>1976/77</u>		
	CUR. ENT	CAPITAL	TOTAL	CURRENT	CAPITAL	TOTAL	CURRENT	CAPITAL	TOTAL
General Services	709	308	1,017	1,136	1,153	1,289	995	1,059	2,054
Social and Community Services	163	437	600	377	1,012	1,389	742	1,126	1,868
Education	129	179	308	295	750	1,045	601	563	1,169
Health	29	13	42	70	41	111	93	53	146
Other Social and Community Services	5	245	250	12	221	243	48	505	553
Economic Services	100	672	772	152	1,555	1,707	138	2,672	2,810
Unallocated	86	433	519	555	479	1,034	165	475	640
Total	1,058	1,850	2,908	2,220	4,199	6,419	2,040	5,332	7,372

## APPENDIX A.1 (Cont'd)

Y E A R F U N C T I O N	1977/78			1978/79			1979/80		
	CURRENT	CAPITAL	TOTAL	CURRENT	CAPITAL	TOTAL	CURRENT	CAPITAL	TOTAL
General Services	1,212	1,126	2,338	1,212	779	1,991	1,266	1,038	2,304
Social and Community Services	397	916	1,313	419	683	1,102	530	942	1,472
Education	261	294	555	263	211	479	369	391	760
Health	100	55	155	81	35	116	97	80	177
Other Social and Community Services	36	567	603	70	437	507	64	471	535
Economic Services	222	3,469	3,691	191	2,407	2,598	244	4,456	4,700
Unallocated	767	428	1,195	770	457	1,227	850	815	1,665
Total	2,598	5,939	8,537	2,592	4,326	6,918	2,890	7,251	1,014

SOURCES:

1959/60 - 1968/69 Analyses of Government Accounts G.O.S., 1979.

1969/70 - 1972/73 African Statistical Year Book, 1976

1973/74 - 1979/80 Federal Ministry of Finance.

APPENDIX A.2

POPULATION, GNP AND PER-CAPITA GNP OF NIGERIA  
(MILLIONS)

YEAR	POPULATION	GNP	PERCAPITA GNP
1959/60	51.6	2399.0	46.5
1960/61	52.9	2529.1	47.8
1961/62	54.3	2766.2	51.8
1962/63	55.7	2901.9	52.1
1963/64	57.0	3067.8	53.8
1964/65	58.5	3203.4	54.8
1965/66	60.0	3435.6	57.3
1966/67	61.4	2886.2	47.0
1967/68	63.0	2764.4	43.9
1968/69	64.6	3699.8	57.5
1969/70	66.2	5359.0	81.0
1970/71	67.8	6720.0	99.1
1971/72	69.5	7123.0	102.5
1972/73	71.2	8225.8	115.5
1973/74	73.2	14060.9	192.1
1974/75	75.0	16384.9	218.5
1975/76	76.9	21105.3	274.5
1976/77	78.6	25702.8	327.0
1977/78	80.6	27716.8	343.9
1978/79	82.6	28171.3	341.1
1979/80	84.7	30109.9	355.5

Sources:

- i) Population - World Tables (1980) and Federal Office of Statistics.
- ii) GNP - World Tables (1980), Central Planning Office.
- iii) GNP per-capita - Calculated from columns 2 and 3.



APPENDIX B.1

DISTRIBUTION OF FEDERAL GOVERNMENT CAPITAL EXPENDITURE BY STATE 1971/72  
IN MILLION NAIRA

SECTORS	B/F	E.C.	Kano	Kwara	Lagos	M/W	N.C	N.E.	N.W	Rivers	S.E	Western	Allocation Criteria
<u>I. AGRICULTURE</u>													
1. Moor Plantation Building Lab. and Utility Services	-											0.02	
2. Fruit and Vegetable Research Station, Ibadan												0.28	
3. Rice Research Stations in Warri and Birnin-Kebbi						0.01			0.01				Equally by State
4. Oil Palm Staff Quarters, Benin						1.0							
5. Research on industrial crop												0.01	
6. Soil Fertility Res. unit, Ngala								0.07					
7. Plant Quarantine Station, Ibadan												0.02	
8. Cocoa Res. Dev. of Gambari- main plantation												0.7	
9. Cocoa Res. Dev. of Ikom and Mambilla substations								0.08			0.08		- ditto -
10. Expansion of Lab. Equipment (N.A.)													
11. Trypanosomiasis research: Building		0.2					0.02						- ditto -

APPENDIX B.1 (Cont'd)  
DISTRIBUTION OF FEDERAL GOVERNMENT CAPITAL EXPENDITURE BY STATE 1971/72  
IN MILLION NAIRA

SECTORS	B/P	E.C	Kano	Kwara	Lagos	M/W	N.C	N.E	N.W	Rivers	S.E	Western	Allocation Criteria
12. Rubber Research Inst. Benin						0.04							
13. Satellite Photographic equip. Ikeja (N.A)													
14. Equipment for Agromet, Oshodi and Kano (N.A.)													
15. Upper air services, Oshodi and Kano			0.03		0.03								Equally by State
16. Equipment for printing, reproducing, storage and electronic workshop, Oshodi					0.01								
17. Telecom. Equipment Oshodi, Ikeja and Kano (N.A)													
18. World Weather watch equipment, Fort-Harcourt and Minna (N.A.)													
19. South-Chad irrigation investigation								0.06					
20. South-Chad pilot project								0.4					
21. Mambilla Pilot afforestation scheme								0.12					
22. Grant to research Council, Ibadan												0.1	
23. International Joint Campaign against CBPF: Vehicles ordered (N.A)													

APPENDIX B.1 (Cont'd)

[illegible]

APPENDIX B.1 (Cont'd)

SECTORS	B/P	E.C	Kano	Kwara	Lagos	M/W	N.C.	N.E	N.W	Rivers	S.E	Western	Allocation Criteria
38. Equipment & Services, Samaru							0.2						
39. Equipment & Services, Ibadan												0.03	
40. Ibadan: Tree Improvement of selected Nigerian species												0.02	
41. Sapoba: High Forest Res.													
42. Ibadan: Forest Products and Laboratories												0.1	
TOTAL	0.22	0.06	0.04		0.11	1.1	0.32	0.71		0.02	0.08	1.2	3.8
<u>II. MINIG</u>													
11. Survey of mineral resources (N.A.)													
2. Airborne Geological Survey (N.A.)													
3. Rehabilitation of Enugu Coalmine	0.2												
	0.2											0.2	

APPENDIX B.1 (Cont'd)

SECTORS	B/P	E.C	Kano	Kwara	Lagos	M/W	N.C	N.E	N.W	Rivers	S.E.	Western	Allocation Criteria
<u>III. INDUSTRIES</u>													
1. Pulp and Paper				0.4									
2. Single superphosphate: feasibility (N.A.)													
3. Iron and Steel				1.1									
4. Investment in Industries		0.2		0.2								0.2	Equally by company
5. Industrial Development Centres, Owerri, Zaria, Oshogbo		0.03					0.03					0.03	Equally by State
6. Fed. Inst. of Industrial Research, Oshodi					0.22								
7. Industrial Dev.: Cons. Service NISER (N.A)													
8. Industrial Training Fund (N.A)													
9. Standard Organization(N.A)													
10. Promotion of Small Scale Industry	0.1	0.1		0.1	0.1	0.1	0.1	0.1	0.1			0.1	Equally by States
Total	0.1	0.32		1.8	0.32	0.13		0.1	0.1	0.1		0.33	3.4

APPENDIX B.1 (Cont'd)

SECTORS	B/P	E.C	Kano	Kwara	Lagos	M/W	N.C.	N.E	N.W	Rivers	S.E	Western	Allocation Criteria
<u>IV. COMMERCE AND FINANCE</u>													
1. Nigerian National Supply Company (N.A.)													
2. Nigerian 2nd International Trade Fair					0.00								
3. Weights and Measures: Purchases through Crown Agents (N.A)													
					0.09								0.09
<u>V. FUEL AND POWER</u>													
N.A.	N.A	N.A											
<u>VI. TRANSPORT</u>													
1. Funtua-Chafe Gusau						0.08							
2. Otta - Idiroko													
3. Eko Bridge Extension					1.9								
4. Apapa Road and Ijera Causeway					4.6								
5. Bauchi-Gombe-Numan-Yola									4.8				
6. Maiduguri-Beri-Sheik													
7. Calabar-Incom											1.3		
8. Maintenance of State Roads (N.A. (													
9. Onitsha-Ihiala-Owerri		0.3									0.3		Equally by State
10. Denam Causeway					0.2								

APPENDIX B.1 (Cont'd)

SECTORS	B/P	E.C	Kano	Kwara	Lagos	M/W	N.C	N.E	N.W	Rivers	S.E	Western	Allocation Criteria
11. Lagos-Ibadan-Kano			0.2	0.6	0.2		1.0		1.0			1.0	Based on length in the State
12. Lagos-Ewekoro, Ibadan- Abeokuta					0.04							0.2	- ditto -
13. Jos-Pambezua-Kaduna	0.03						0.03						- ditto -
14. Ilorin, Kabba, Lokoja Oturkpo	0.3			0.9									- ditto -
15. Shagamu-Benin-Asaba						1.3						0.7	- ditto -
16. Shagamu-Benin bridges						0.13						0.2	- ditto -
17. Calabar-Ekang-Yahe											0.6		- ditto -
18. Kano-Kari			3.2					0.3					- ditto -
19. Kano-Katsina			1.3				1.3						- ditto -
20. Sokoto-Ilela									1.3				
21. Jos-Aliade-Oturkpo	5.4												
22. Maiduguri-Gamboru									0.1				
23. Replacement of bridge and minor roads		0.2								0.2	0.2		- ditto -
24. Ife-Ilesha-Akure-Benin						0.03						0.03	- ditto -
25. Kaduna-Kafanchan-Gimi							0.01						
26. Jaredi-Yelwa-Kontagora								0.17					
27. Zaria-Funtua-Gusau							0.01						
28. Ibadan-Ife												0.07	
29. Maiduguri-Mefa-Gamboru								0.07					
30. Road, Bridges at Mkurii and Jebba	2.04												

APPENDIX B.1 (Cont'd)

SECTORS	E/P	E.C.	Kano	Kwara	Lagos	M/W	N.C	N.E	N.W	Rivers	S.E	Western	Allocation Criteria
31. Lagos-Ibadan-Expressway					0.06							0.12	Equally by State
32. Cater Bridge repairs					0.4								
33. Western Avenue/Agege Motor Road					0.66								
34. Bauchi-Gombe-Numan-Yola								1.3					
35. Niger Bridge permanent repair				0.9									
36. Calabar-Itu-Ikot Ekpene											0.006		
37. Yaba-Maryland-Ikeja					0.17								
38. Ibadan-Kano-Daura			0.004	0.004			0.004		0.004			0.004	- ditto -
<u>Civil Aviation</u>													
39. Lagos Airport New Terminal													
40. Lagos Airport runway apron. Extension					0.9								
41. Other Airport extension													Equally by State
42. Reconstruction of airports at Ilorin, Enugu & Kaduna		0.03	0.02				0.02						Based on progress report
43. Communication equipment			0.8		0.8								Equally by State
44. Mechanical handling, fire equipment and rescue			0.02		0.02								- ditto -
45. Aviation ground training, Ikeja													
46. Aircraft purchases (N.A)													



APPENDIX B.1 (Cont'd)

SECTORS	B/P	E.C.	Kano	Kwara	Lagos	M/W	N.C	N.E	N.W	Rivers	S.E	Western	Allocation Criteria
47. Lake Chad,, Hydrological Studies (.N.A.)													
48. Provision of repairs Dockyard													
49. Rehabilitation of Port- Harcourt dockyard													
50. Rehabilitation of Calabar dockyard													
51. " " " Warri						0.006							
52. " " " Lokoja				0.006									
53. Establishme of hydrolo- gical networks				0.001	0.001	0.001				0.001	0.001		equally by State
54. Dredging & River training works				0.04									
55. Minor Works				0.01									
56. Inland Waterway Dept.	0.004			0.004									equally by State
57. Maritime Services,=Opobo											0.003		
<u>Ports</u>													
58. Rehabilitation of Ports						1.0				2.1	1.0		Based on progress report
59. Development of Lagos Port				0.3									

APPENDIX B.1 (Cont'd)

SECTORS	B/P	E.C	Kano	Kwara	Lagos	M/W	N.C	N.E	N.W	Rivers	S.E	Western	Allocation Criteria
60. Trailer Section dredger					0.8								
61. Nigerian Railway: Purchases (N.A.)													
Total	5.8	6.8	5.4	1.7	10.3	2.5	2.3	7.0	2.3	2.3	3.6	2.1	46.13
VII. COMMUNICATIONS													
N.A.													
VIII. RESETTLEMENT AND <u>REHABILITATION</u>		1.6				1.6				1.6	1.6		Equally by States
Total		1.6				1.6				1.6	1.6		6.3
IX. EDUCATION													
1. Expansion of Primary Sch. Educ. in the Northern States	0.6		0.4	0.5			0.5	0.6	0.5				According to number of schs.
2. Assistance to war affected areas		0.48								0.48	0.48		Equally by State
3. Library development in Primary School													
4. Science & Maths. Teaching for Primary school													
5. Asst. to prim. Sch. Teachers Training Grants	0.005	0.2	0.003	0.003	0.003	0.13	0.004	0.004	0.004	0.003	0.1	0.3	According to number of schools
6. Fed. Govt. Col., Warri and Sokoto						0.001			0.001				Equally by State

APPENDIX B.1. (Cont'd)

SECTORS	B/P	E.C	Kano	Kwara	Lagos	M/W	N.C	N.E	N.W	Rivers	S.E	Western	Allocation Criteria
7. Financial Assistance for Sec. Sch. expansion in the Northern States	0.3		0.08	0.34			0.13	0.17	0.17				According to number of schs.
8. Fed. Science sch.					0.34								
9. Expansion of Facilities Yaba Col. of Technology					0.4								
10. National Tech. Train. Col.					0.003								
11. National Technical Inst.					0.007								
12. Emergency T.T. Programme: bills to students (N.A.													
13. NUC		6.0			6.1		4.0					5.8	NUC annual report

APPENDIX B.1 (Cont'd)

SECTOR	B/P	E.C	Kano	Kwara	Lagos	M/W	N.C.	N.E	N.W	Rivers	S.E	Western	Allocation Criteria
14. Scholarship Scheme (N.A)													
15. Educational Statistics (N.A)													
16. Citizenship and Leadership Training Centre		0.008											
17. Sch. Broadcasting Equipment (N.A)													
18. National Archives: Design (N.A.)													
<b>TOTAL</b>	<b>1.0</b>	<b>6.7</b>	<b>0.6</b>	<b>0.8</b>	<b>7.0</b>	<b>0.2</b>	<b>4.8</b>	<b>0.8</b>	<b>0.7</b>	<b>0.5</b>	<b>0.6</b>	<b>6.1</b>	<b>29.8</b>

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X. HEALTH

1. New Equipment for Yellow Fever and Smallpox Vaccine lab.(N.A)													
2. Expansion of drug manufacturing laboratory					0.7								
3. New Chemistry Lab.													
4. Fed. Sch. of Radiography					0.001		0						
5. Expansion of Teaching Hospitals					2.7		2.7				2.7		Equally by hospital
Total					2.7		2.7				2.7		8.1

XI. INFORMATION

Machinery & Equipment (N.A.)

APPENDIX B.1 (Cont'd)

SECTOR	B/P	E.C.	Kano	Kwara	Lagos	M/W	N.C.	NE	N.W	Rivers	S.E	Western	Allocation Criteria
<u>XII LABOUR &amp; SOCIAL WELFARE</u>													
1. Reconstruction of damaged labour offices		0.001									0.001		Equally by State
2. Mobil Eye Clinics			0.006			0.006	0.0006	0.006					
3. Completion of National Stadium Phases II & III					1.9								
Total		0.001	0.006		1.9	0.006	0.006	0.006			0.001		1.96
<u>XIII. TOWN AND COUNTRY PLANNING</u>													
1. Surveys N.A													
2. Staff Quarters Lagos					0.08								
3. Metropolitan Low-cost housing scheme					0.27								
4. Niger Delta development Board						0.12							
					0.3	0.12							0.47
<u>XIV. WATER AND SEWERAGE</u>													



## APPENDIX B.2

### DISTRIBUTION OF FEDERAL GOVERNMENT CAPITAL EXPENDITURE BY STATE 1976/77

## IN MILLION NAIRA

[illegible]

## APPENDIX B.2 (Cont'd)

[illegible]



## APPENDIX B.2 (Cont'd)

SECTORS	B/P	E.C.	Kano	Kwara	Lagos	M/W	N.C	N.E	N.W	Rivers	S.E	Western	Allocation Criteria
29. Anambra and Imo State Rice Project		0.75											
30. Cross River rice project											0.3		
31. Large scale mixed farming; feasibility (N.A.)													
32. Assistance to Sch. offering agric. (N.A.)													
33. Large scale food crop farm; feasibility (N.A.)													
34. Oyo, Ogun & Bendel States Cocoa Project						0.41						0.82	Based on Project Report
35. Cross River State oil Palm Project											0.75		
36. Oyo, Ondo, Ogun States Oil Palm Project												1.11	
37. Bendel State " " "						1.001							
38. Anambra/Imo States " "		1.0											
39. Bendel State rubber replanting						2.031				0.55		0.55	
40. Cash crop rehabilitation scheme		0.55				0.55				0.55		0.55	Equally by State

[illegible]

## APPENDIX B.2 (Cont'd)

SECTOR	B/P	E.C	Kano	Kwara	Lagos	M/W	N.C.	N.E.	N.W	Rivers	S.E	Western	Allocation Criteria
60. New Farm	0.005												
61. Nutritional Biochemical Res. (N.A)													
62. Lab. Technology	0.02												
63. Tsetse Examination (N.A)													
64. " Southern States Office Lab.		0.07										0.03	According to location
65. " Training Centre, Bara								0.04					
66. " " School, Kaduna							0.12						
67. National Animal Health Vaccination (N.A)													
68. Quarantine Station Kano & Ikeja			0.02		0.02								Equally by State
69. Livestock Control Posts, Jebba				0.11									
70. Federal Livestock Dept., Mokwa and Kaduna Building				0.02			0.02						Equally by State
71. Federal Govt./IBRD Ranches							0.23	0.23	0.23				By Location
72. Staff Housing				0.07			0.07					0.07	" "
73. N'dama Cattle Project							0.17	0.17	0.17				Equally by State
74. Regional pasture Improvement Unit								0.24					
75. Dev. of Grazing Reserves			0.13	0.13			0.13	0.13	0.13				"
76. Relocation of the Animal Herds in Niger-Benue Valley	0.31												
77. Field facilities for extension of animal production							0.1						

## APPENDIX B.2 (Cont'd)

SECTOR	B/P	E.C	Kano	Kwara	Lagos	M/W	N.C	N.E	N.W	Rivers	S.E	Western	Allocation Criteria
78. Staff Housing							0.14						
79. Planning Division, Building							0.1					0.1	Equally by State
80. Public and animal HQ, Kaduna							0.14						
81. State Office at Mokwa				0.05									
82. Fed. Livestock Dept. HQ Building							0.33						
83. Additional Tannery Sokoto & Zaria							0.01		0.01				"
84. Reconstruction of Oji River Tannery		0.12											
85. Survey & Feasibility Study Livestock (N.A.)													
86. Animal Feed programme							0.19	0.19	0.19				"
87. Special livestock programme							0.33	0.33	0.33				"
88. Importation of Chilled and Frozen meat (N.A.)													
89. Experimental ranch				0.05									
90. Leather Institute: land acquisition and quarters							0.14						
91. Hides & Skin improvement unit							0.008						
92. Laboratory building							0.002						
93. Workshop building							0.002						
94. Library Building							0.002						
95. Staff Quarters							0.002						

## APPENDIX B.2 (Cont')

SECTORS	B/P	E.C	Kano	Kwara	Lagos	M/W	N.C	N.E	N.W	Rivers	S.E	Western	Allocation Criteria
96. Improvement in the Northern part			0.001				0.001	0.001	0.001				Equally by State
97. Protection Forestry	0.05	0.05										0.05	"
98. Forest Plantation Development		0.04	0.04	0.04		0.04			0.04		0.04	0.04	"
99. Rebuilding of Jos School of Forestry	0.05												
100. National Accelerated Fish Prod.	0.02	0.02	0.02	0.02	0.02	0.02	0.02		0.02	0.02	0.02	0.02	"
101. Inshore fishing project					0.001	0.001				0.001	0.001		"
102. Building Projects					0.004								
103. Fed. Fisheries School, Lagos					0.25								
104. Fresh water fisheries in New Bussa				0.12									
105. Fish Product. Dev. Centre					0.008								
106. Kainji Lake Res. Project building				0.60									
107. Lake Chad fisheries Development								0.25					
108. Brackish water fish culture: building										0.22			
109. Nigerian Inst. of Oceanography					0.50								
Total	2.8	6.3	3.8	7.5	1.3	4.4	14.4	60.6	32.6	1.07	1.3	5.1	144.3

## APPENDIX B.2 (Cont'd)

SECTORS	B/P	E.C	Kano	Kwara	Lagos	M/W	N.C	N.E	N.W	Rivers	S.E	Western	Allocation Criteria
<u>II. MINING AND QUARRYING</u>													
1. Geological survey (N.A.)													
2. Construction of HQ offices & Lab.							0.11						
3. Geological survey: staff quarters							0.43						
4. Ririwari mines Ltd.			0.40										
5. N.M.C. participation in mining companies	0.21						0.21	0.21					equally by State
6. Lead and Zinc	0.18	0.18											
7. Tin and allied minerals	0.18		0.18				0.18	0.18					"
8. Appraisal of mineral deposit(N.A)													
9. Manpower training (N.A)													
10. New Offices & Staff Quarters	0.35	0.35			0.35							0.35	"
11. Petroleum Training Inst.										17.3			
12. Expansion of Enugu coal mine		11.3											
13. Bulk ore termina Bonny										0.08			
14. Dev. of other coal mines	0.42			1.2									"
Total	1.3	11.9	0.58	1.2	0.35		0.93	0.39		17.5		0.35	34.5

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## APPENDIX B.2 (Cont'd)

SECTORS	B/P	E.C	Kano	Kwara	Lagos	M/W	N.C	N.E	N.W	Rivers	S.E	Western	Allocation Criteria
14. Calabar wood working complex											1.2		
15. Direct reduction Iron & Steel						0.28							
16. Loan to new salt company						2.5						2.5	
17. Truck assemblies		0.46	0.46									0.46	By Location
18. NIDB (N.A.)													
19. Nigeria Standard Organization: building		0.08			0.08								Equally by State
20. Nigerian Steel deposit authority				15.0									
21. Federal Institute of Industrial Research: Building & Lab.												0.61	
22. Warri refinery						143.4							
23. Kaduna refinery							102.7						
24. LNG										0.21			
25. Aba Textile Mills		3.6											
26. Single Phosphate Factory							5.0						
27. Wood Furniture, Ondo												0.1	
28. Skid mounted petroleum references Port Harcourt and Ughelli						41.2				41.2			Equally by location
Total	1.3	17.6	1.6	23.7	0.38	199.96	107.73	8.2	1.8	4.1	32.1	13.6	449.3



SECTORS	B/P	E.C.	Kano	Kwara	Lagos	M/W	N.C	N.E.	N.W	Rivers	S.E.	Western	Allocation Criteria
<u>IV. COMMERCE AND FINANCE</u>													
1. Trade Fair					35.5								
2. Nigerian Stored Product Research Inst. HQ building, Lagos					0.04								
3. Food Storage demonstration and Training Centre, Ibadan & Kano			0.01									0.01	equally by State
4. Fed. Produce Inspection Service Office accommodation & Stores					0.45								
5. Fed. Palace Hotel, Expansion					1.9								
6. Hotel development Kano, Lagos			0.5		0.5								Equally by State
7. NICON House complex, Lagos					1.13								
8. C.B.N. Sub-centres				1.0				1.0	1.0		1.0		equally by State
9. Nigeria Security Printing; Factory Development				0.63									
TOTAL			0.5	1.02	45.8			1.02	1.02		1.02		50.5
<u>V. COOPERATIVES &amp; SUPPLY</u>													
Construction of Head Office							0.5						
							0.5						0.5



## APPENDIX B.2 (Cont'd)

SECTORS	B/P	E.C	Kano	Kwara	Lagos	M/W	N.C	N.E	N.W	Rivers	S.E	Western	Allocation Criteria
18. Nine mile Corner-Enugu-Oturkpo	5.0	5.0											Based on length in State
19. Jos-Gimi	2.2						2.2						
20. Maiduguri-Benishek Road								0.1					
21. Maiduguri-Gamboru Road								0.6					
22. Port-Harcourt-Aba-Enugu		10.5								2.6			- ditto -
23. Jos-Bauchi-Benisheik	1.4												
24. Makurdi Bridge	6.2												
25. Awgu-Oji River		0.08											
26. Calabar-Ibom widening											1.9		
27. Ikoma-Ogoja-Katsina Ala	1.5										1.9		- ditto -
28. Katsina Ala-B'u Road	3.2							15.9					- ditto -
29. Katsina Ala-Bridge	6.7												
30. Road bridge at Numan								2.0					
31. Jimeta-Little Gombi-Gwaza-Bama								3.5					
32. Gembi-Hamtari-Mayo-Belwa-Yola-Jimeta Road								0.33					
33. Road Bridgeaat Jimeta								0.87					
34. Takum Beli-Jalingo-Belwa								0.70					
35. Jalingo-Mayo-Belwa								0.83					
36. Jiberu-Sorau								0.30					
37. Otta-Idiroko												1.4	
38. Shagamu-Benin												16.1	
39. Benin-Asaba						8.9							

## APPENDIX B.2 (Cont'd)

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## APPENDIX B.3 (Cont'd)

SECTORS	B/P	E.C. Kano	Kwara	Lagos	M/W	N.C	N.E	N.W	Rivers	S.E	Western	- Allocation Criteria
57. Okene-Ajaokuta, Ayangba			9.4									-
58. Mokwa-Bida-Keffi-Akwanga	0.07		0.03				0.03					- ditto -
59. Akwanga-Shendam-Katungo-Jalingo	0.15						0.05					- ditto -
60. Kabutu-Jos Reconstruction	0.5											
61. Bakori-Tegina								0.04				
62. Gusau-Sokoto								6.8				
63. Gusau-Zaria						2.7		2.7				- ditto -
64. Zaria-Pambegua						6.03						
65. Jibiya-Katsina						8.9						
66. Jibiya-Katsina						0.12						
67. Kano-Kari		0.5										
68. Kaduna-Gimi						4.7						
69. Falomo Bridge				3.9								
70. Lagos Inner Ring Road				0.12								
Oworonshola-Ikeja				16.0								
72. Third Axial Road and Bridge				21.1								
73. Oyingbo Yaba Roundabout				0.005								
74. Ikorodu-Airport Road				11.3								
75. Western Ave.-Agege Motor Road				3.1								
76. Malu-Kirikiri				0.01								
77. Eko Bridge Extension				0.12								
78. Herbert Macaulay				2.2								
79. Access Road to New Secretariat				0.006								

APPENDIX B.2 (Cont'd)

[illegible]

## APPENDIX B.2 (Cont'd)

SECTORS	B/P	E.C	Kano	Kwara	Lagos	M/W	N.C	N.E	N.W	Rivers	S.E	Western	Allocation Criteria
100. Igbogor-Ogbesse-Okomo												1.2	
101. Ilushi-Uromi-Uzzeba						2.5							
102. Ilushi-Nsukka		0.24											
103. Ilesha-Ado Ekiti												0.26	
104. Ado-Ekiti-Ikare-Ibillo						0.02						0.1	
105. Kabba-Omuo				1.4									
106. Yandev-Taki-Biam-Wakuri	6.0												
107. Makurdi-Yandev	0.2												
108. Beli-Jantari	0.4												
109. Share-Lafiaji-Pategi				4.0									
110. Agana, Nasarawa-Lafia	0.07												
111. Lafia-Shendam	9.4												
112. Daki-Takwa-Zuru-Biu Yauri									5.2				
113. Wudil-Kefin-Hausa-Potiskum									0.4				
114. Maichi-Daki-Takwas									3.1				
115. Kuduru - Argugun-Haredi										0.37			
116. Dutsima-Kankiya							1.2						

## APPENDIX B.2(Cont'd)

SECTORS	B/P	E.C	Kano	Kwara	Lagos	M/W	N.C	N.E	N.W	Rivers	S.E	Western	Allocation Criteria
117. Gusau-Kaura Namoda-Jibiya									0.26				
118. Sokoto-Sabon-Birnin									0.18				
119. Ago-Are-Shaki-Kosubusu												0.20	
120. Kalgo-Kamba												1.8	
121. Ijebu-Ode-Hoiken												2.7	
122. Ijebu-Ode-Ayunre												0.2	
123. Gbogan-Sekona-Oshogbo												0.37	
124. Oshogbo-Okuku												0.14	
125. Itarla-Ile Oluyi-Ipetu												0.06	
126. Akure-Ondo												0.5	
127. Akure-Ado Ekiti-OmuAran												0.18	
128. Kajyi.-Gummi Daki-Pakwas									3.7				
129. Gunmi Bridge approaches									0.9				
130. Owo Omua- Egbe-Pategi				0.09								0.09	- ditto -
131. Pategi-Bida-Zungeru-Tegina									0.16				
132. Sabon-Birnin Gusari-Funtua-Yashi							0.70						
133. Shinkafi Bridge									2.4				
134. Ipele-Isua-Kabba				0.01								0.01	- ditto -
135. Ughelli-Ozoro-Ole Junction						0.18							
136. Ozoro-Kwale						0.33							



Sectors	B/P	E.C.	Kano	Kwara	Lagos	MW	NC	NE	NW	Riv.	S.E.	WN	Allocation Criteria
137. Onitsha-Adani		0.18											
138. Ahoada-Omoku-Okwuzi										0.43			
139. Ahoada-Degema-Buguma										1.1			
140. Uyo-Itu-Araku -Abakaliki		0.13											
141. Ikom-Wula-Obudu Junction/Ranch		0.28											
142. Bridge at Ibi	0.06												
143. Kunya-Babura			3.3										
144. Frestan-Mata-Nigi Saminaya		0.57											
145. Bauchi-Tafawa Balawa-Dawaki								0.25					
146. Gombe-Ashaka								11.4					
147. Nafada-Potiskam								6.6					
148. Ganye-Yola								0.16					
149. Damaturu-Gashua-Geidam								0.35					
150. Dikwa-Monguno								0.09					
151. Bama-Gulumba-Kala-Ngala								0.11					
152. Pulka-Kurawa								0.11					
153. Nigerian Railway: Purchases (N.A)													
154. Civil Aviation Training Centre							1.5						
155. Dockyard development at Warri & P. Harcourt						0.16				0.16			- ditto -
TOTAL	47.6	36.8	15.8	28.8	130.5	46.8	41.4	81.8	67.7	4.3	23.5	65.8	589.0

## VIII. COMMUNICATION

N.A.

## APPENDIX B.2 (Cont'd)

## IX. EDUCATION

[illegible]

Sectors	B/P	E.C	Kano	Kwara	Lagos	MW	NC	NE	NW	R.V	S.E	WN	Allocation Criteria
13. Six Fed. Advanced T. Colleges	2.9			2.9			2.9	2.9	2.9			2.9	Equally by State
14. Expansion of N.T.T.C. Yaba					0.5								
15. Establishment of N.T.T.C Gombe								0.6					
16. Nat. Teachers Institute Kaduna							6.7						
17. Training for Special education (N.A)													
18. Teachers Bursary (N.A)													
19. Undergraduate Bursary (N.A)													
20. Post-graduate Bursary (N.A)													
21. Students Loans Scheme (N.A)													
22. Schl. Broadcasting (N.A)													
23. IBRD Education Project	3.6	1.2								1.2	1.2		Equally by State NUC Report
24. N.U.C	3.6	8.2	4.4	2.8	16.4	15.9	15.2	2.8	2.8	2.8	3.6	18.1	
TOTAL	27.3	44.6	43.3	21.2	37.5	32.0	41.0	42.3	34.3	13.7	27.6	39.8	404.6

X. HEALTH

	Sectors	B/P	E.C	Kano	Kwara	Lagos	MW	NC	NE	NW	RV	SE	WN	Allocation Criteria
1.	Teaching Hospital Ibadan													
2.	" " Lagos					4.2							7.8	
3.	A.B.U. Teaching Hospital							5.5						
4.	Ife " "												2.5	
5.	Benin " "						3.0							
6.	Eruwa " "		3.3											
7.	P.Harcourt " "										15.5			
8.	National Materia Control (N.A)													
9.	Control of Communicable disease N.A													
10.	National Institute of Public Health					0.15								
11.	Fed. School of Radiography					0.06								
12.	" " " Dental Tech. & Hygiene		0.12											
13.	" " " Dispensing													
	Assistants					0.15								
14.	College of Nursing							0.06						
15.	Fed. Pharmaceutical Mfg Lab					0.03								
16.	Drug Quality Control Lab.					0.3								
17.	Port Health Office for Seafarers					0.01								
18.	N.A. Health Secretariat					0.05								

Sectors	B/P	E.C	Kano	Kwara	Lagos	MW	NC	NE	NW	RV	SE	WN	Allocation Criteria
19. Chemistry Lab. in Lagos					0.13								
20. Expansion of Fed Med. Store Oshodi					0.07								
21. Nig. Medical Research Council Office					0.3								
TOTAL		3.4			5.5	3.0	5.6			15.5		10.3	43.3

XI. INFORMATION

1. Extension of External Broadcasting	1.3
2. Second Channel Studio Lagos	0.4
3. R & D Unit Workshop & Lab.	0.3
4. Countrywide colour TV. Building	14.1
5. Training Schl. Sargunle	0.5
6. Nigeria Nat. News Agency Building	0.3

	Sectors	B/P	E.C	Kano	Kwara	Lagos	MW	NC	NE	NW	RV	SE	WN	Allocation Criteria
7.	Lagos HQ building					0.17								
8.	Film Unit building					0.24								
9.	Printing Division Melu Rd.					0.34								
10.	Library: Construction of HQ					0.8								
11.	National Archives					0.25								
12.	National Museum					0.02								
13.	Library Auditorium					0.32								
14.	Museum Jos	50,000												
15.	" Gron Reconstruction											0.01		
	TOTAL	50,000				18.8						0.01		8.9

## YII SOCIAL DEVPT. YOUTH & SPORTS

1.	Rehabilitation Centre	0.33												
2.	Central Stores					0.05								
3.	Camping Centre Badegry					0.1								
4.	Development of Ogunblane Drive					0.03								
5.	National Stadium Phase IV					1.1								

XV SEWERAG & DRAINAGE

## XVI HOUSING

	Sectors	B/P	E.C	Kano	Kwara	Lagos	MW	NC	NE	NW	RV	SE	WN	Allocation Criteria
1.	Fed Mortgage Bank (N.A)													
2.	Fed. Housing Programme Anambra		1.5											
3.	Fed. Housing Programme Bornu								3.5					
4.	" " " Kaduna							1.6						
5.	" " " Kano			2.0										
6.	" " " Lagos					3.5								
7.	" " " Oyo												2.2	
8.	" " " Rivers										0.5			
9.	" " " Sokoto									2.0				
10.	" " " Lagos Area					85.8								
TOTAL			1.5	2.0		89.3		1.6	3.5	2.0	0.5	2.2		103.9

## XVII TOWN &amp; COUNTRY PLANNING

1.	Development of Tafawa Balawa Square					6.4								
2.	Installation & maintenance of of Street lights in Lagos					0.5								
TOTAL						6.9								6.9



Sector		B/P	E.C	Kano	Kwara	Lagos	MW	NC	NE	NW	RV	S.E	VN	Allocation Criteria
<u>XVII</u>	COMMUNITY DEVELOPMENT													
	N.A													
<u>XIX</u>	GENERAL ADMINISTRATION													
1.	External Affair HQ Office						0.1							
2.	Accommodation for Nig. Mission Abroad N.A													
3.	Radio link with Nig. Mission N.A													
4.	Technical Assistance with African countries (N.A)													
5.	Office expansion Inst. of In Internal Affairs						0.25							
6.	Staff Housing Inst. of Internal Affairs						2.5							
7.	HQ Fire Station Lagos						0.08							
8.	Barracks for rank & file						0.2							
9.	Sub-fire Station Surulere						0.2							
10.	Fire equipment (N.A)													
11.	Expansion of joint frontierpost						0.03							
12.	Preventive Service Operations Ikeja						0.03							

[illegible]

	Sectors	B/P	E.C	Kano	Kwara	Lagos	MW	NC	NE	NW	RV	S.E	WN	Allocation Criteria
26.	AfCON					1.2								
27.	Fed. Training Centre Ilorin				0.13									
28.	Fed. Civil Service Club					0.02								
29.	Residential building for Fed. Dept. of Agric.					0.38								
30.	Nigerian Council for Science & Technical Secretariat					0.02								
31.	'Think Tank'					0.01								
32.	Fed. Capital Development: Survey (N.A)													
33.	Federal Secretariat					11.6								
34.	Jetter & Ferry Service					0.05								
35.	Fed. Mtn. of Works HQ					1.7								
36.	Mechanical & Electrical Artisan Schls. Ijora & Abeokuta					0.03								Equally by State
37.	New Mechanical Workshop Ijora					0.31								

Sectors	B/P	EC	Kano	Kwara	Lagos	MW	NC	NE	NW	RV	S.E	WN	Allocation Criteria
38. Nigerian Law Schl. Expansion					0.07								
39. Supreme Court Office Block					0.2								
40. Fed. Min. of Housing, Urban Development Residential Quarters					9.1								
41. Fed. Min. of Works Housing					0.17								
42. Constituent Assembly Quarters					3.11								
43. Fed. Govt. Staff Housing Loan (N.A)													
TOTAL				0.13	3.5				0.14			0.03	35.12

APPENDIC B.3POPULATION OF NIGERIA BY STATES POPULATION IN MILLION

STATES	1972	1977
Benue Plateau	4.9	5.6
East Central	8.9	10.1
Kano	7.2	8.1
Kwara	2.9	3.4
Lagos	1.9	2.7
Mid-West	3.1	3.6
North Central	5.1	5.8
North Eastern	9.7	10.9
North Western	7.1	8.1
Rivers	1.9	2.2
South Eastern	4.5	5.1
Western	11.8	13.6
NIGERIA	69.0	78.7

Source: National Population Bureau, Demographic  
Division, Lagos.

APPENDIX B.4

CALCULATION OF COEFFICIENT OF VARIATION FOR VARIOUS CATEGORIES OF  
EXPENDITURE PER-CAPITA

Category of Expenditure Per-Capita	1971/72				1976/77			
	$\sum x$	$\bar{x}$	$\sum d^2$	S	$\sum x$	$\bar{x}$	$\sum d^2$	S
Total Expenditure Per-Capita	167	13.9	1045094	29.5	867.1	72.3	153762.1	113.2
Current Expenditure Per-Capita	139.4	11.6	8410.8	26.4	442.3	36.9	12115.2	31.8
Capital Expenditure Per-Capita	27.6	2.3	113.2	3.1	434.8	36.2	19628.2	40.4
Economic Services Exp. per-capita	16	1.3	22.5	1.4	290.5	24.2	7069.3	24.3
Soc. Services Expenditure Per-Capita	10.5	0.9	34.2	1.7	155	12.9	4087.5	18.5

Notes:

$\sum X$  = Sum of the expenditure per-capita

$\bar{X}$  = Mean of the expenditure per capita

$\sum d^2$  = The sum of the squared deviations from the mean

S = Standard deviation of the expenditure per-capita

APPENDIX C.1LIST OF EDUCATION INSTITUTIONSA. Secondary

1. Federal Government College Kaduna, Kaduna State
2. Federal Government College, Bakori, Kaduna State
3. Federal Government College, Idoani, Ondo State
4. Federal Government College, Sokoto, Sokoto State
5. Federal Government College, Enugu, Anambra State
6. Federal Government College, Yola, Bororo State
7. Federal Government College, Benin, Bendel State
8. Federal Government College, Ikot Ekpene, Cross River State.

B. COLLEGES OF EDUCATION AND POLYTECHNICS

1. National Technical Teachers College, Akoka, Lagos State
2. Yaba College of Technology, Yaba, Lagos State
3. College of Education, Okene, Kwara State
4. Federal College of Technology, Bauchi, Bauchi State
5. College of Education, Pankshin, Plateau State
6. College of Education, Abeokuta, Ogun State
7. Federal College of Technology, Akure, Ondo State
8. College of Education, Kotagora, Niger State.

C. UNIVERSITIES

1. Ahmadu Bello University, Zaria, Kaduna State
2. University of Lagos, Lagos, Lagos State
3. University of Benin, Benin, Bendel State
4. University of Maiduguri, Borno State
5. Bayero University, Kano, Kano State
6. University of Nigeria, Nsukka, Anambra State

APPENDIX C.2LIST OF HEALTH INSTITUTIONS

1. Ahmadu Bello University Teaching Hospital, Zaria.  
Kaduna State
2. University of Ibadan Teaching Hospital, Ibadan
3. University of Nigeria Teaching Hospital, Enugu

APPENDIX C.3LIST OF STATE HOUSING

1. Plateau State - Jos
2. Kano State - Kano
3. Festival Town - Lagos
4. Anambra State - Enugu
5. Cross River State - Calabar
6. Bendel State - Benin

APPENDIX C.4LIST OF TOWNS WITH ELECTRICITY

1. Azare, Bauchi State
2. Zaria, Kaduna State
3. Maiduguri, Borno State
4. Ilorin, Kwara State
5. Owo, Ondo State
6. Auchi, Bendel State
7. Enugu, Anambra State
8. Ikot-Ekpene, Cross River State



APPENDIX C.5

Department of Public Administration  
Institute of Administration,  
Ahmadu Bello University,  
Zaria.

Dear Mr., Mrs., Miss,

QUESTIONNAIRE

As part of a study of the impact of government expenditure on income distribution, this questionnaire is designed to find out the number of people who benefit from certain categories of federal government provided goods and services and an estimated value of such benefits on the basis of income-groups. The information required is purely for academic research purpose and will be treated as absolutely confidential.

Please, complete the questionnaire at your earliest convenience.

Thank you.

Yours faithfully,

(Sgd.)  
J.B. LONGE

6

APPENDIX C.6

(Put the Number of the appropriate answer in  
space provided)

A. EDUCATION

I. Sex      1. Male    2. Female

☐

ii. Level of student's education

☐

1. Secondary

2. Polytechnic, Technical School of  
NCE

3. University

iii. Father's or Guardian's estimated annual  
before tax in Naira:

1. 0 - 1,000

☐

2. 1,001-2,000

3. 2,001-3,000

4. 3,001-4,000

5. 4,001-5,000

6. 5,001-6,000

7. 6,001 and above

iv. Father's or Guardian's educational level:

1. No formal education

2. Below school certificate or equivalent

☐3. Below first degree or equivalent but not  
lower than school certificate or equivalent4. University first degree or equivalent  
and above.

6

v. Father's or Guardian's employment status:

1. Unemployed
2. Self-employed
3. Earner

APPENDIX C.7

(Put the number of the appropriate answer in the space provided).

B. HEALTH: ☐

i. Sex      1. Male      2. Female

ii. Nature of Hospitaliz tion:

1. Out-patient

2. In-Patient ☐

iii. If In-patient how many days spent in hospital:

1. Less than 3 days

2. Between 3 days and 1 week

3. Between 1 week and 2 weeks

4. Between 1 week and 2 weeks

5. Between 2 weeks and 3 weeks ☐

6. Between 3 weeks and 4 weeks

7. Above 4 weeks

iv. Patient's estimated annual income before tax in

Naira:

1. 0 - 1,000

2. 1,001-2,000

3. 2,001-3,000


4. 3,001-4,000 ☐

5. 4,001-5,000


6. 5,001-6,000

7. 6,001 and above

## v. Patient's educational level:

1. No formal education
2. Below school certificate or equivalent. 
3. Below first degree or equivalent but not lower than school certificate or equivalent
4. University degree or equivalent and above.

## vi. Patient's employment status:

1. Unemployed
2. Self-employed 
3. Earner

APPENDIX C.8

(Put the number of the appropriate answer in the space provided)

C. HOUSING: ☐

## i. Location of Housing:

1. Rural

2. Urban ☐

## ii. Type of House:

1. One bedroom

2. Two bedroom ☐

3. Three bedroom

4. Four bedroom

## iii. Estimated monthly rent in naira:

1. 0-40

2. 41-60

3. 61-80 ☐

4. 81-120

iv. Estimated annual income of Landlord before tax  
in Naira:

1. 0 - 1,000

2. 1,001-2,000

3. 2,001-3,000 ☐

4. 3,001-4,000

5. 4,001-5,000

6. 5,001-6,000

7. 6,001 and above

## v. Educational level of Landlord:

1. No -formal education
2. Below school certificate or equivalent. ☐
3. Below first degree or equivalent but not lower than school certificate or equivalent.
4. University degree or equivalent and above.
- 5.

## vi. Employment Status:

1. Unemployed
2. Self-employed ☐
3. Earner

## vii. Size of household.

APPENDIX C.9

(Put the number of the appropriate answer in the space provided)

E. ELECTRICITY: ☐

## 1. Rent Status of Landlord:

1. Rental
2. Owner occupier and rental ☐
3. Owner occupier

## ii. Estimated amount spent on electricity per month in Naira:

1. 0 -18
2. 11 - 20
3. 21 - 31 ☐
4. 31 - 40
5. 41 - 50
6. 51 - 60
7. 61 and above

## iii. Educational level of landlord:

1. No formal education
2. Below school certificate or equivalent ☐
3. Below first degree or equivalent but not lower than school certificate or equivalent
4. University degree or equivalent and above.

## iv. Employment Status of Landlord:

1. Unemployed
2. Self-employed ☐
3. Earner

## v. Estimated annual income before tax of landlord in Naira:

1. 0 - 1,000
2. 1,001-2000
3. 2,001-3000
4. 3,001-4,000
5. 4,001-5,000
6. 5,001-1,000
7. 6,001 and above

## vi. Size of household.



APPENDIX D.1ALLOCATORS USED IN ESTIMATING BENEFITS OF GOVERNMENT  
EXPENDITURES

Expenditure Category	INCOME GROUP						
	0-1000	1001-2000	2001-3000	3001-4000	4001-5000	5001-6000	6001 and above
Primary Education	31.5	14.8	19.8	18.4	6.7	4.9	3.9
Secondary Education	10.1	7.0	10.1	10.5	5.7	12.3	44.1
Polytechnic, Technical and Colleges of Education	30.0	20.1	12.1	12.5	10.3	8.5	11.6
University	10.8	7.0	8.2	10.1	12.7	8.2	43.0
Health	32.9	22.6	16.5	16.1	5.5	5.1	1.3
Housing	8.6	10.6	19.2	27.7	17.2	10.8	5.9
Power	4.9	9.3	15.3	17.8	11.1	13.6	28.1
General Services	1.9	11.1	18.0	20.7	13.7	12.1	22.5

Source: Survey by the Researcher.

APPENDIX D.2ELECTRICITY CONSUMPTION IN THOUSAND Kwh

YEAR	RESIDENTIAL	COMMERCIAL AND INDUSTRIAL-- LIST	STREET LIGHTING	TOTAL
1970/71	445,197	699,032	3,786	1,148,015
1971/72	573,507	888,739	5,492	1,467,738
1972/73	633,593	1,113,592	4,615	1,751,800
1973/74	752,068	1,280,765	6,613	2,039,446
1974/75	894,779	1,442,708	5,690	2,343,177
1975/76	1,021,897	1,693,284 \	n.a.	2,715,181
1976/77	1,357,246	1,902,555	6,505	3,266,306
1977/78	1,496,201	2,117,389	13,834	3,627,474
1978/79	2,082,094	2,079,225	16,548	4,177,867

Source: Annual Abstract of Statistics, 1981 Edition p.92.