**CURRENCY EQUIVALENTS**

<table>
<thead>
<tr>
<th>Currency Unit</th>
<th>=</th>
<th>Cruzado</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cz$1.00</td>
<td>=</td>
<td>US$.006</td>
</tr>
<tr>
<td>US$1.00</td>
<td>=</td>
<td>Cz$160.6</td>
</tr>
</tbody>
</table>

**FISCAL YEAR**

January 1 - December 31
Preface

This report is based on the findings of a mission which visited Brazil in June 1987, as well as on earlier sector work by World Bank staff and consultants in the social sectors. The mission included William Paul McGreevey (mission leader), Maria Helena Cordeiro (deputy mission leader), Alan Berg (Nutrition Adviser), Donald Holsinger (Education Specialist), Jacomina de Regt (Health Specialist), Philip Musgrove (Adviser in Health Economics, Pan American Health Organization), Alberto Carvalho da Silva, Antonio Carlos Coelho Campino, Sonia Fleury Teixeira, Andre Medici, Alberto de Mello e Souza, Thomas Merrick, Francisco de Oliveira, Fernando Rezende, Hamilton Tolosa, David Vetter, and Donald Winkler (Consultants). The consolidated estimates of federal social spending presented in this report were prepared by Solon Magalhaes Vianna, Sergio Francisco Piola, and Lucia Pontes de Miranda Baptista.

The report was written by Barbara Bruns and William P. McGreevey. Much information was drawn from consultant reports and recent World Bank reports, including the sector report "Policies for Reform of Health Care, Nutrition and Social Security in Brazil," prepared by William P. McGreevey, and sector work on education, "Finance of Primary Education," prepared by Donald Winkler. These provide more detailed discussions of particular issues. Background papers prepared for this report, and related prior reports, are listed in the bibliography. The report benefited from comments of Bank staff of the Brazil Department, the Latin America and Caribbean region Technical Department, and the Policy, Planning and Research complex, as well as comments of Brazilian experts. Andree Plant provided superb and tireless word processing assistance.

The report also incorporates many valuable comments made by Government technical staff during discussions held in Brasilia and Washington, in March and April 1988.
EXECUTIVE SUMMARY

i. Each year, Brazil spends a significant share of its gross domestic product on social services of all kinds -- including health care, education, water supply, sanitation, housing, nutrition, and social security (pensions, and disability insurance). Total Brazilian social expenditure in 1986 was an estimated 25 percent of GDP, comprised of federal government programs and services (9 percent of GDP), state and local government social expenditures (another 9 percent of GDP), and a rough estimate of private household (non-reimbursed) spending on health and education alone (7 percent of GDP). Although cross-country comparisons are difficult to interpret given the very different structure of social services in different countries (particularly the extent to which services are provided and financed by the private, rather than public, sector), the Brazilian share of GDP expended on social services appears to be higher than that of other middle-income developing countries.

ii. Compared to the same countries, however, Brazilian social welfare indicators are strikingly low. Infant mortality in Brazil is well above the average for countries in its income group, and in the Northeast of Brazil it is higher than in much of sub-Saharan Africa. Brazilian children complete fewer years of schooling than anywhere in Latin America except El Salvador and Nicaragua, and whereas 90 percent of Korean children age 15-19 attend secondary school, only 21 percent of Brazilian children do. These low average indicators, furthermore, hide striking differences in welfare between low and high income groups, between rural and urban areas, and between the Southeast and the Northeast. With a reasonable portion of the population -- concentrated in the urban Southeast -- enjoying good health and education, the low national averages mean others are truly disadvantaged. Low literacy rates and high incidence of chronic infectious diseases and malnutrition are not only undermining the welfare of the Brazilian population, they are also robbing the economy of a critical resource for future economic growth: a skilled and productive labor force.

iii. This report examines why Brazilian social expenditure has not, to date, resulted in higher average levels of social welfare. It focuses on federal government expenditure, both because it is an important share of the total and because the federal government influences the expenditure patterns of state and local governments and the private sector through its policies, regulations, and revenue-sharing. The report concludes that there are two major reasons why Brazilian federal expenditure has not achieved more: i) resources have not been effectively targeted to the poorest and most vulnerable segments of the population, and, in fact, a large share of social expenditure actually subsidizes higher-income groups; and ii) resources are poorly managed within agencies and programs. Contributing to these problems are the types of taxes and other mechanisms used to finance social programs, and inappropriate policies with respect to involvement of the private sector in the delivery of social services.
iv. Chapter I discusses indicators of Brazil's level of social welfare compared to other countries and reviews current government policy. The chapter introduces the overall structure of public social expenditure, which totalled an estimated US$47.2 billion in 1986, divided equally between federal level outlays and state and local government programs, and describes the major sources of revenues for social programs: payroll taxes; other earmarked contributions; general federal receipts; state and local taxes; and domestic and external borrowing.

v. Chapter II outlines the major issues regarding the way public resources for social programs are raised and used. It points to three different forms of mistargeting of social sector resources: i) mis-targeting within sectors, such as education and health, that result in relatively high public subsidies for the types of programs that are not likely to reach the poor, and low subsidies for the types of programs that would reach the poor; ii) mis-targeting across sectors, with relatively high public subsidies for those sectors, such as social security and housing, that currently serve primarily the middle-class and the rich, compared with sectors, such as nutrition, that primarily serve the poor; and iii) failure within programs to reach the poorest and neediest groups. An estimated 78 percent of all public spending on health is still devoted to high-cost curative hospital services, especially in the urban south of Brazil, and only 22 percent to all forms of basic (preventive) health care, such as immunization programs, malaria control, and maternal and child health -- despite the fact that the latter programs are many times more cost-effective in reducing mortality and are much more likely to benefit the poor, particularly the rural poor. In education, given the government's policy of free tuition at public universities, the cost to the public for each university student is almost 18 times higher than government expenditure per student at the primary and secondary level. This policy skews the benefits of public education expenditure heavily towards the rich; almost 50 percent of students in public universities come from families with income above 10 minimum salaries, and less than 6 percent come from families with income of two minimum salaries or less.

vi. The chapter examines the probable distribution of social program benefits on the basis of income and age and estimates that: i) the poorest 19 percent of the Brazilian population (with less than one-quarter of a minimum salary income per household member) receives on the order of 6 percent of social benefits, and ii) low-income children under 5 years of age (perhaps the most critically important target group) constitute 13 percent of the population but receive only about 7 percent of public social spending.

vii. In its review of the management of social programs, Chapter II highlights four major sources of internal inefficiency: i) over-centralization of some programs; ii) a complex and non-transparent system of intergovernmental financial transfers; iii) inappropriate use of the private sector in social service delivery; and iv) lack of incentives for cost-effective approaches at all levels of government. Among examples of
waste due to poor management, it cites estimates that only 52 out of every 100 cruzados the federal Ministry of Education allocates to Northeast Brazil is actually spent on teachers, books, and other direct classroom inputs, implying that an excessively large share of funds is spent on administrative functions, with little direct impact on education quality. The chapter also finds that the public sector puts too many resources into subsidies for "private goods" -- such as curative medicine and technical and higher education -- that could be financed directly by many of the higher-income individuals who benefit from these services, and thereby also discourages the private sector from supplying many of these on a cost recovery basis. Conversely, government policies, such as price controls on private school tuition rates, sometimes discourage existing private sector activity, in this case probably limiting the expansion of private schools and undermining the quality of instruction.

viii. Finally, Chapter II argues that the way social programs are financed contributes to the problems of mis-targeting and inefficiency. First, the large share of revenues that are earmarked (sometimes outside of the overall budget process) to particular federal agencies and activities has tended to build empires and impede the rational allocation of resources in light of changing social -- and overall fiscal -- priorities. Second, the heavy reliance on payroll taxes and payroll-based social contributions (which account for about 50 percent of revenues for federal social expenditure) has distortionary effects on the overall economy and regressive effects on the poorest segments of the population. Third, the use of opaque and discretionary conventions to govern revenue transfers from the federal to state and local levels creates inefficiencies (because the level and timing of funding is highly uncertain from year to year, causing "stop and start" expenditure patterns) and inhibits the accountability of agencies. Finally, through inadequate use of direct cost recovery for social services, the government misses opportunities not only to supplement public sector resources, but also to stimulate greater quality, efficiency, and attentiveness to end-users in the delivery of social services: if services are not efficient, it quickly becomes difficult for agencies to recover costs from users.

ix. Chapter III provides more detail on the organization and financing of the major social programs: social security, education, housing and urban services, including water and sanitation; health; and nutrition. For each sector, the discussion indicates how the financing and delivery of services affects achievement of the targeting (or equity) and efficiency objectives discussed in Chapter II. The chapter is not an exhaustive survey of the issues in these sectors, but it reflects current thinking among experts inside and outside Brazil about some of the major problems.

x. Chapter IV presents some options for change in the way social programs in Brazil are organized and financed. Possible changes are grouped into four categories: changes that would improve the targeting of social expenditures; changes that would encourage greater efficiency in the way social programs are managed; changes in the way revenues for social expenditures are mobilized; and expansion of the federal government's role
in providing quality control and consumer information for social services organized and delivered by other levels of government and by the private sector. In each of these areas, Chapter IV discusses options that are primarily if not wholly in the domain of the federal government; though many social services are delivered by state and local governments, reform in their organization and financing must begin at the federal level. The options are presented recognizing that political and technical constraints will affect the timing as well as the possibility of particular options.

xi. Possibilities for improved targeting include a shift in emphasis within certain sectors toward programs (such as primary education and basic health care) that assist the poor, and away from programs (such as university education and curative hospital care) that currently subsidize the middle-class and the rich. Targeting could also be improved by reorienting existing programs toward serving children, the rural poor, and other specific population groups, for example, eliminating such untargeted food programs as worker feeding and the wheat price subsidy; and by assuring that programs such as social security pensions and housing are fully financed by the assessed contributions of beneficiary groups. There are a number of mechanisms the government can consider to improve the targeting of public subsidies without reducing the size of such subsectors as university education and hospital care, which in an absolute sense may not be too large. These include greater use of user charges for those able to pay and more private sector provision of social services, accompanied by such steps as expansion of student loan programs, increased consumer information regarding private medical care and insurance, and deregulation of prices of private social services. Also proposed is decentralization of some federal programs to state and local governments to encourage greater flexibility in the targeting of programs.

xii. Improvements in the management and thus the efficiency of programs run at all levels of government can be encouraged at the federal level through more rapid decentralization to the states of the responsibility for certain programs, including, for example, the school meal program and INAMPS-administered health care in hospitals and other INAMPS facilities. With the proposed tax reform, significant decentralization of financial responsibility is envisaged, but the federal government will continue to control some transfers and can encourage greater efficiency in its revenue-sharing through the use of federal "matching fund" arrangements (at varying degrees of proportionality) and by relying on transparent, objective criteria for transfers (such as population size and per capita income) in place of convenios.

xiii. The major options for change in the way social programs are financed are reduced reliance on payroll taxes, which are likely to be regressive, in favor of greater reliance on income and value-added taxes and corporate profits taxes, as well as greater local cost recovery; and the elimination of earmarking of specific taxes and "social contributions" to particular federal agencies.
xiv. Finally, a number of options to strengthen the role of the federal government in providing quality control and consumer information regarding social programs in Brazil are presented. These include an increase in resources at the federal level to strengthen important regulatory activities in the social sectors; the preparation at the federal level of a social budget (consolidating social expenditures at all levels of government); an annual review of social welfare indicators; and the establishment of an ongoing program of evaluation of public and private social services.
VOLUME I

TABLE OF CONTENTS

Page No.

PREFACE ................................................................. i

EXECUTIVE SUMMARY ........................................... iii

GLOSSARY OF ACRONYMS ........................................ xi

I. BACKGROUND ......................................................... 1

A. Social Welfare in Brazil ...................................... 1
B. Current Government Policy .................................... 5
C. The Structure of Social Expenditure in Brazil ............ 5
D. The Financing of Social Expenditure in Brazil .......... 8

II. ISSUES AND PROBLEMS IN SOCIAL EXPENDITURES .......... 11

A. Mistargeting ....................................................... 11
B. Management of Social Programs ............................... 25
C. Financing Systems ................................................ 30

III. MAJOR SOCIAL PROGRAMS ....................................... 33

A. Social Security .................................................... 33
B. Education .......................................................... 39
C. Housing and Urban Services .................................. 42
D. Health Services .................................................... 46
E. Federal Nutrition Programs .................................... 53

IV. OPTIONS FOR REFORM ............................................ 57

A. Better Targeting .................................................. 57
B. Decentralization and Increased Local Accountability .... 58
C. New Approaches to Financing .................................. 59
D. The Federal Role in Quality Control and Consumer Protection .................................................. 60
E. Options at the Sectoral Level ................................... 63

LIST OF TEXT TABLES

1. Brazil: Social Indicators ....................................... 1
2. Comparative Social Expenditure ................................ 3
3. Federal, State and Local Social Expenditures, by Program, 1986 ...................................................... 6
4. Sources and Uses of Funds for Public Social Spending, 1986 . 9
5. Total Government Spending on Social Programs as a Percentage of GDP, Brazil (1986) and Costa Rica (1982) ............ 14
LIST OF FIGURES

2. Proportion of Households Living in Poverty, Classified by Age and Sex of the Head of Household, 1985............. 17
3. Probable Distribution of Social Benefits, by Income Class of Likely Recipients, 1986........................................ 19

LIST OF BOXES

1.1 Public and Private Goods........................................ 4
2.1 Equity and the Age Distribution of Benefits.................. 16
3.1 Large Early Retirement Benefits.................................. 36
3.2 Rural Workers vs. Early Retirees.................................. 38
3.3 Housing Finance and the Fiscal Deficit.......................... 45

REFERENCES................................................................ 68

VOLUME II

PART ONE - CONSOLIDATED ACCOUNT OF SOCIAL SPENDING

Tables 1 - 21
Tables 1a-19a

PART TWO - OTHER SUPPORTING TABLES
# ACRONYMS

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AH</td>
<td>Atestado de Internação Hospitalar (Hospitalization Certification)</td>
</tr>
<tr>
<td>AIS</td>
<td>Ações Integradas de Saúde (Integrated Health Actions)</td>
</tr>
<tr>
<td>BHRSR</td>
<td>Brazil Human Resources Special Report (see World Bank in Bibliography)</td>
</tr>
<tr>
<td>BNDES</td>
<td>Banco Nacional de Desenvolvimento Econômico e Social (National Bank for Economic and Social Development)</td>
</tr>
<tr>
<td>BNH</td>
<td>Banco Nacional de Habitação (National Housing Bank)</td>
</tr>
<tr>
<td>CAPES</td>
<td>Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (Coordinating Committee for Higher Education)</td>
</tr>
<tr>
<td>CEDEPLAR</td>
<td>Centro de Planejamento e Análise Regional (Center for Regional Planning and Analysis, Belo Horizonte MG)</td>
</tr>
<tr>
<td>CEF</td>
<td>Caixa Econômica Federal (Federal Mortgage and Savings Bank)</td>
</tr>
<tr>
<td>CEME</td>
<td>Central de Medicamentos (State Drug Company)</td>
</tr>
<tr>
<td>CIPLAN</td>
<td>Conselho Intermunicipal de Planejamento (Intermunicipal Council for Health Planning)</td>
</tr>
<tr>
<td>CISS</td>
<td>Comissão Interinstitucional de Serviços de Saúde (Interinstitutional Commission on Health Services)</td>
</tr>
<tr>
<td>CNRH</td>
<td>Centro Nacional de Recursos Humanos (National Human Resource Center, part of planning secretariat)</td>
</tr>
<tr>
<td>COBAL</td>
<td>Companhia Brasileira de Alimentos (Brazilian Food Company)</td>
</tr>
<tr>
<td>CONASP</td>
<td>Conselho Consultivo da Administração de Saúde Previdenciaria (Consultative Council for Health Administration)</td>
</tr>
<tr>
<td>DATAPREV</td>
<td>Sistema de Dados (Social Security Institute Data System)</td>
</tr>
<tr>
<td>DHS</td>
<td>Demographic and Health Surveys, Westinghouse Health Systems</td>
</tr>
<tr>
<td>DRG</td>
<td>Diagnostically Related Group (see also AH)</td>
</tr>
<tr>
<td>ENDEF</td>
<td>Estudo Nacional de Despesas Familiares (National Family Budget Survey, 1974-75)</td>
</tr>
<tr>
<td>FAE</td>
<td>Fundo de Assistência Escolar (Student Assistance Fund)</td>
</tr>
<tr>
<td>FAS</td>
<td>Fundo de Apoio Social (Fund for Social Support)</td>
</tr>
<tr>
<td>FCVS</td>
<td>Fundo de Compensação de Variação Salarial (Fund for Compensation of Salary Variation)</td>
</tr>
<tr>
<td>FGTTS</td>
<td>Fundo de Garantia por Tempo de Serviço (Time-on-Job Guarantee Fund)</td>
</tr>
<tr>
<td>FIBGE</td>
<td>Fundação Instituto Brasileiro de Geografia e Estatística (Brazilian Institute for Geography and Statistics [Census Bureau])</td>
</tr>
<tr>
<td>FINSOCIAL</td>
<td>Fundo de Investimento Social (Fund for Social Investment)</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Description</td>
</tr>
<tr>
<td>--------------</td>
<td>-------------</td>
</tr>
<tr>
<td>FIOCRUZ</td>
<td>Fundação Oswaldo Cruz, Foundation for Medical Research</td>
</tr>
<tr>
<td>FIPE</td>
<td>Fundação Instituto de Pesquisas Econômicas, Institute for Economic Research, University of Sao Paulo</td>
</tr>
<tr>
<td>FSESP</td>
<td>Fundação de Serviços de Saúde Pública, Foundation for Public Health Services</td>
</tr>
<tr>
<td>FUNDACENTRO</td>
<td>National Foundation for Occupational Safety, Hygiene and Medicine</td>
</tr>
<tr>
<td>GIB</td>
<td>Guia de Internaçao Hospitalar, Hospitalization Guide</td>
</tr>
<tr>
<td>HH</td>
<td>Domicilio, Household</td>
</tr>
<tr>
<td>ICM</td>
<td>Imposto sobre Circulação de Mercadorias, Value-Added Tax</td>
</tr>
<tr>
<td>IGP</td>
<td>Índice Geral de Preços, General Price Index</td>
</tr>
<tr>
<td>INAMPS</td>
<td>Instituto Nacional de Assistência Medica e Previdência Social, National Institute for Medical Assistance and Social Security</td>
</tr>
<tr>
<td>INAN</td>
<td>Instituto Nacional de Alimentação e Nutrição, National Institute for Food and Nutrition</td>
</tr>
<tr>
<td>INPS</td>
<td>Instituto Nacional de Previdência Social, National Institute Social Security</td>
</tr>
<tr>
<td>IPEA</td>
<td>Instituto de Planejamento Economico e Social, Institute for Economic and Social Planning</td>
</tr>
<tr>
<td>IPTU</td>
<td>Imposto Predial de Territorio Urbano, Urban Property Tax</td>
</tr>
<tr>
<td>IPF</td>
<td>Imposto sobre Produtos Industrializados, Industrial Products Tax</td>
</tr>
<tr>
<td>ISS</td>
<td>Imposto sobre Servicos, Municipal Services Tax</td>
</tr>
<tr>
<td>LBA</td>
<td>Legião Brasileira de Assistencia, Brazilian League for Social Assistance (component of INPS system)</td>
</tr>
<tr>
<td>MA</td>
<td>Ministerio da Agricultura, Ministry of Agriculture</td>
</tr>
<tr>
<td>MHU</td>
<td>Ministerio de Habitaçao, Urbanismo e Meio Ambiente, Ministry of Urban Development</td>
</tr>
<tr>
<td>MEC</td>
<td>Ministerio da Educação e Cultura, Ministry of Education and Culture</td>
</tr>
<tr>
<td>MPAS</td>
<td>Ministerio da Previdência e Assistencia Social, Ministry of Social Security</td>
</tr>
<tr>
<td>MS</td>
<td>Ministerio da Saúde, Ministry of Health</td>
</tr>
<tr>
<td>NGO</td>
<td>Non-Governmental Organization</td>
</tr>
<tr>
<td>OPAS/OMS</td>
<td>Organização Pan-Americana de Saúde, Organização Mundial de Saúde, Pan American Health Organization, World Health Organization</td>
</tr>
<tr>
<td>OPI</td>
<td>Orçamento Plurianual de Investimentos, Multiyear Investment Budget (1986)</td>
</tr>
</tbody>
</table>
ORT Terapia de Rehidratação Oral
Oral Rehydration Therapy
PAG Programa de Ação de Governo
Government Action Program (1987)
PAISMCI Programa de Assistência Integral para Saúde da Mulher e Criança
Integrated Program for Maternal and Child Health Care
PAP Programa de Alimentação Popular
Popular Food Program
PASEP Programa de Assistência ao Servidor Público
Asset Accumulation Program for Public Servants
PAT Programa Alimentar do Trabalhador
Worker Food Program
PCA Programa de Complementação Alimentar
Program of Complementary Feeding, Ministry of Social Security
PIASS Programa de Interiorização das Ações de Saúde e Saneamento
Grassroots Program for Health and Sanitation
PIS Programa de Integração Social
Program for Social Integration
PLANASA Plano Nacional de Agua e Saneamento
National Plan for Water and Sanitation
PNAD Pesquisa Nacional por Amostra Domiciliar
National Household Survey Study
PNAE Programa Nacional de Alimentação Escolar
National Program for School Feeding
PND Plano Nacional de Desenvolvimento
National Development Plan
PNLCC Programa Nacional de Leite para Crianças Carentes
National Milk Program for Needy Children
PPS Programa de Prioridades Sociais
Program for Social Priorities
PREVSAUDE Programa de Saúde Preventiva
Program for Preventive Health Care
PROAB Programa de Alimentação Brasileira
Brazilian Food Program
PROAPE Programa de Alimentação Pre-Escolar
Preschool Feeding Program
PROSANEAR Program (sanitation investment funds)
Program (sanitation investment funds)
PSA Programa de Suplementação Alimentar
Food Supplementation Program
PVO Private Voluntary Organization
SEAC Secretaria de Ações Comunitárias
Secretariat for Community Action, Office of the President of the Republic of Brazil
SENAI National Service for Industrial Apprenticeship
SENAC National Service for Commercial Apprenticeship
SENAR National Service for Rural Apprenticeship
SEPLAN Secretaria de Planejamento
Secretariat of Planning, Office of the President of the Republic of Brazil
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
</table>
| SFR          | Sistema Financeiro de Habitação  
               System of Housing Finance |
| SPS          | Sistema Financeiro de Saneamento  
               System for Sanitation Finance |
| SINPAS       | Sistema Nacional de Previdência e Assistência Social  
               National Social Security System |
| SM           | Salario Mínimo  
               Minimum Salary |
| VTE          | Vocational Technical Training |
| UNESCO       | United Nations Educational Scientific and Cultural Organization |
| UNICEF       | United Nations Children's Fund |
| UdeS         | Unidade de Serviço  
               Unit of [Medical or Hospital] Service |
I. BACKGROUND

A. Social Welfare in Brazil

1. Brazil has one of the most unequal distributions of national income in the world, and glaring disparities in the living standards, health status, and educational attainment of different segments of its population have persisted despite several decades of remarkable economic growth. Although average per capita income for the nation was US$1,967 in 1986, in Northeast Brazil about 20 million people, or half of that region's population, survived on less than US$300 per person -- a level comparable to that of China, South Asia, and West Africa. The high incidence of poverty, malnutrition, infant mortality, and low educational attainment in this region is an important reason why social indicators for Brazil as a whole lag behind those for other Latin American countries and for comparably developed economies elsewhere in the world. The estimated infant mortality rate of 116 per 1,000 live births in the Northeast, for example, exceeds the rates for Nigeria, India, and Sudan. But even Brazil's better-off regions, such as in the South and Southeast, have higher infant mortality and lower life expectancy at birth and educational attainment than elsewhere in Latin America, as can be seen from Table 1.

Table 1: BRAZIL: SOCIAL INDICATORS

<table>
<thead>
<tr>
<th></th>
<th>Infant Mortality Rate (per 1000 live births)</th>
<th>Life Expectancy at Birth</th>
<th>Secondary School Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northeast Brazil</td>
<td>125 (1976)</td>
<td>116</td>
<td>46</td>
</tr>
<tr>
<td>Rest of Brazil</td>
<td>75 (1976)</td>
<td>52</td>
<td>58</td>
</tr>
<tr>
<td>BRAZIL</td>
<td>104</td>
<td>67</td>
<td>55</td>
</tr>
<tr>
<td>CHILE</td>
<td>107</td>
<td>22</td>
<td>57</td>
</tr>
<tr>
<td>MEXICO</td>
<td>82</td>
<td>50</td>
<td>58</td>
</tr>
<tr>
<td>COLOMBIA</td>
<td>96</td>
<td>48</td>
<td>54</td>
</tr>
<tr>
<td>KOREA</td>
<td>63</td>
<td>27</td>
<td>55</td>
</tr>
</tbody>
</table>

Sources: All country data except for Brazil from World Development Report, 1987; Brazil data from World Bank and IBGE statistics.
2. Brazil's lagging social development not only undermines the establishment of a stable social and political system, it threatens the long-term productivity growth of the economy. This is most obvious for education; improvements in education are associated with 14 percent of the growth of the U.S. economy in the period 1929-69,\(^1\) and are potentially an even greater source of growth in developing countries, where the returns to education are higher. Economic progress, even in middle-income countries such as Brazil that are rich in natural resources, will be increasingly achieved primarily through the creativity and innovation of an educated labor force. The gap between Brazil's secondary school enrollment rate (21 percent in 1984) and those of Mexico and Korea cannot fail to affect its future industrial competitiveness.

3. Brazil's poor social welfare performance does not stem from lower social spending\(^2\) than in other middle-income developing countries. On the contrary, as indicated in Table 2, Brazil for several decades has devoted a comparable or higher share of central government expenditure and national product to social sectors than have countries such as Korea and Mexico. For example, total social sector expenditures in 1985 were 9.3 percent of GDP in Brazil, but only 6.4 percent in Mexico and 4.9 percent in Korea. The table does not include expenditure by other levels of government or private expenditure on social services, and thus provides an incomplete picture -- especially, perhaps, for Brazil, since 50 percent of public social spending in Brazil is by state and local governments (see Table 3, p. 6) and the private sector plays an important role in curative health services and education.\(^3\) Nonetheless, it indicates that the Brazilian national investment in the social sectors has not been lower than that of other middle-income countries.

4. Why, then, has Brazil achieved less than other countries with its social sector expenditure? It started from a low base, in terms of the social indicators in Table 1, but so did several of the other countries depicted; the comparison, for example, of Brazilian and Chilean infant mortality rates over the past two decades is striking. Arguably, Brazil's geographic dispersion makes the nationwide delivery of social services inherently more costly than in smaller countries. A second possibility is that sociocultural and climatic


\(^2\) Public social expenditure, as used in this report, refers to government programs or transfers in the areas of health, nutrition, education and culture, social security and assistance, water and sanitation, urban services, and housing.

\(^3\) In education, close to 40 percent of all secondary-level students and 60 percent of all higher-level students attend private schools in Brazil. In health, more than 75 percent of all hospital beds in Brazil are in private institutions, and an estimated 35-50 percent of all expenditures on health are private (i.e., not reimbursed by government health insurance).
factors which have contributed to the persistent poverty of the Northeast may have created more intractable social development problems than those faced by other countries. The detailed examination of Brazilian social expenditure patterns in this report, however, points consistently to another reason: the seriously inefficient and mistargeted use of public resources. Distortions in what social services the public sector finances, who benefits from these services, and how funds are raised and transferred have been major constraints on Brazil's rate of social progress.

Table 2: COMPARATIVE SOCIAL EXPENDITURE
(Central Government only)

<table>
<thead>
<tr>
<th></th>
<th>Education</th>
<th>Health</th>
<th>Housing/SSec</th>
<th>TOTAL, Social</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRAZIL</td>
<td>1.5</td>
<td>1.2</td>
<td>1.8</td>
<td>6.2</td>
</tr>
<tr>
<td>MEXICO</td>
<td>2.0</td>
<td>0.6</td>
<td>0.4</td>
<td>2.9</td>
</tr>
<tr>
<td>KOREA</td>
<td>2.9</td>
<td>0.2</td>
<td>0.3</td>
<td>1.1</td>
</tr>
</tbody>
</table>

(% of GDP)

<table>
<thead>
<tr>
<th></th>
<th>Education</th>
<th>Health</th>
<th>Housing/SSec</th>
<th>TOTAL, Social</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRAZIL</td>
<td>8.3</td>
<td>6.7</td>
<td>8.5</td>
<td>35.0</td>
</tr>
<tr>
<td>MEXICO</td>
<td>16.4</td>
<td>5.1</td>
<td>1.5</td>
<td>25.0</td>
</tr>
<tr>
<td>KOREA</td>
<td>15.9</td>
<td>1.2</td>
<td>1.4</td>
<td>5.8</td>
</tr>
</tbody>
</table>

(% of Total Central Government Budget)

Notes: Brazil data refers to 1986, not 1985, and is taken from Table 3, this chapter. For 1986, "Health" includes nutrition and Housing/SSec includes Water/Sanitation and Labor. For the other countries, exact classification of expenditures is not known.


5. For example, public subsidies are high in Brazil for curative hospital care compared with basic health programs, such as immunization, prenatal care, and control of vector-borne diseases, despite the fact that the latter programs are far more cost-effective in reducing mortality and are much more likely to serve the needs of the poor. Public subsidies for university education are almost 18 times higher per student than for primary and secondary education, although the social returns to university education are lower, and it is largely the children of better-off families
Box 1.1: PUBLIC AND PRIVATE GOODS

Economists make the somewhat artificial distinction between public goods and private goods, based, among other reasons, on the concept of externalities. At one extreme are purely "private" goods—food, clothing, housing, automobiles, most curative health care—for which all benefits of use are captured by the individual consumer, without any spillover or "external" benefits to others. A hamburger eaten by individual A or a heart-bypass operation received by B are not available for consumer C. At the other extreme are "public" goods, the benefits of which are equally received by all members of a society; consumption by one individual does not reduce consumption by others. Government defense spending provides security equally to all members of society; similarly, clean air enjoyed (or "consumed") by one individual does not interfere with others' enjoyment.

Many goods and services fall between the two extremes. A vaccination benefits the individual but others as well, as it reduces the chances of communicable disease spreading throughout the community. Primary education benefits the individual, but also society as a whole, as it helps ensure a functioning social and political system (particularly important in democratic societies) and a productive economy. Because a single individual cannot capture all of the benefits of public goods—for example, malaria control programs or a neighborhood sanitation system—individuals will tend to underspend on these. Governments can help correct this by providing or subsidizing such public goods. In general, there is little need for government to provide private goods, with the important exception of the special needs of the poor. Low-income groups may not be able to acquire the basic private goods (such as food) they need to guarantee a minimum level of living and, especially, development for their children.

A large share of Brazilian social spending today pays for private goods. Many curative health services, such as heart bypass operations and kidney dialysis, only benefit individuals, and if the government pays for such services, it raises taxes and/or reduces the availability of other government services for everyone else. Basic retirement benefits are a public good (one person's avoidance of poverty in old age helps keep the costs to society for welfare assistance down), but excessive retirement benefits are good for the individual recipient and no one else. Basic education to a large extent has the character of a public good, as it contributes strongly to aggregate productivity increases in the economy and raises everybody's standard of living. University training, on the other hand, may help society if there is a shortage of highly skilled scientists in the country, but for many types of professional training, most of the benefits of specialized skills are captured by individuals, in the form of higher private income; thus, it is difficult to justify financing the full costs of specialized training with public funds. Whether goods are public or private is a matter of degree, and can be different depending upon time and place. As a result, there are no simple guides to the optimal level and allocation of public expenditure. What can be said, however, is that government spending is more efficient, the more emphasis it gives to largely public goods.
who benefit from free public universities. The social security program channels almost 30 percent of its resources to the 9 percent of workers who qualify for early retirement, the majority of whom are relatively high-income persons; until recently, many lower-income workers, such as rural laborers, were not even covered. Large public subsidies for "private" goods (see Box 1.1) and relative neglect by the government of those types of expenditure that are most likely to improve the welfare of the poor are manifestations of poor overall "targeting" of government efforts in the social sectors.

B. Current Government Policy

6. The Government of the Nova Republica that took office in March 1985 brought social welfare issues to the forefront of the political agenda. In late 1987, the federal government was proposing average annual increases in federal social spending of more than 10 percent through 1991. The largest increases were proposed for the housing, water/sanitation, and food and nutrition subsectors. On a per capita basis, these recommendations would mean that federal social expenditure at the end of the program would be about one-third higher (in constant prices) than the current level.4/

7. Given recent macroeconomic developments and growing pressure for sharp reductions in the federal budget deficit, it is not clear that additional federal resources will materialize. Moreover, the current Constituent Assembly proposals for a sweeping reforma tributaria are in many respects moving in the opposite direction, towards greater decentralization of revenue raising and expenditure authority to the state and municipal levels of government. Most importantly, given the evidence discussed throughout this report that current levels of social sector expenditure are not contributing efficiently to the improvement of social welfare in Brazil, increased federal spending is not, at least in the first instance, the answer. Spending reforms are needed first, to increase the efficiency of social programs and to target them more directly towards the neediest segments of the Brazilian population.

C. The Structure of Social Expenditure in Brazil

8. Public social expenditure in Brazil is divided almost equally between federal government outlays and spending by the 23 states and more than 4,000 municipalities (Table 3). In 1986, total social spending by all three levels of government reached an estimated US$47 billion (about 18 percent of GDP).5/ Over 50 percent of this spending, however, for social security and health insurance (INAMPS), is financed by payroll taxes paid by workers and employers. In principle, there is little subsidy in these programs because workers are paying the costs of the programs from which they benefit; social security, therefore, is more in the nature of an


5/ 1986 GDP is estimated by the World Bank as US$270 billion.
intergenerational transfer. These programs are included in this review for several reasons, however. First, the programs are not fully funded -- they can use, and have in the past relied on, general revenues to finance deficits. Second, as discussed in Chapter III, the burden of the social security tax is not borne solely by social security and health insurance beneficiaries. Third, the payroll taxes for social security and health insurance have opportunity costs in terms of the difficulty of imposing and enforcing other taxes to finance social programs. Finally, available data do not allow the subsidy element (which may also change over time) to be separated out.

**Table 3: Federal, State and Local Social Expenditures by Program, 1986/a (US$ millions)**

<table>
<thead>
<tr>
<th>Program</th>
<th>Federal</th>
<th>State and Local</th>
<th>Total</th>
<th>Percentage Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Security /b</td>
<td>13,404</td>
<td>6,649</td>
<td>20,053</td>
<td>42.5</td>
</tr>
<tr>
<td>Education and culture</td>
<td>3,827</td>
<td>6,996</td>
<td>10,823</td>
<td>22.9</td>
</tr>
<tr>
<td>Housing, urbanization</td>
<td>890</td>
<td>6,986</td>
<td>7,876</td>
<td>16.7</td>
</tr>
<tr>
<td>Health /c</td>
<td>4,166</td>
<td>1,732</td>
<td>5,898</td>
<td>12.5</td>
</tr>
<tr>
<td>Water and Sanitation</td>
<td>676</td>
<td>463</td>
<td>1,139</td>
<td>2.4</td>
</tr>
<tr>
<td>Food and Nutrition /d</td>
<td>656</td>
<td></td>
<td>656</td>
<td>1.4</td>
</tr>
<tr>
<td>Urban Transport /e</td>
<td></td>
<td>584</td>
<td>584</td>
<td>1.2</td>
</tr>
<tr>
<td>Labor</td>
<td>173</td>
<td></td>
<td>173</td>
<td>.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>23,792</td>
<td>23,410</td>
<td>47,202</td>
<td>100.0</td>
</tr>
</tbody>
</table>

**Notes:**
- Table refers to gross expenditures. As noted in the text, some of these programs are financed by beneficiary payments or contributions; therefore, the subsidy element varies considerably from program to program.
- Includes social welfare programs of SINAMPS and pensions for public employees. For state and local, includes the broad budgetary function "Labor, welfare, and social security," of which 90 percent is retirement benefits for public employees, including decentralized agencies (see Vol. II, Part Two, Table 27).
- Includes INAMPS and a minor amount of state and local spending on nutrition.
- The federal wheat subsidy (US$1.1 billion in 1986) and the worker feeding program (PAT) are not included, although they have sometimes been defended in Brazil as nutrition programs.
- Does not include federal spending on the "vale transport" service, a transport voucher for low-income urban workers, which was instituted after 1986.

**Sources:**
- Column 1, federal expenditures -- Vol. II, Part One, Table 14: these data transformed at US$1=CZ$1.8; column 2 -- Vol II, Part Two, Table 21, based on FIBGE data for 1984 extrapolated to 1986 by Medici (1987). Column 2 estimates were adjusted downward with data from Vol. II, Part One, Tables 1-7 and Part Two, Tables 46 and 47 to eliminate double counting of federal transfers.
9. In general, the federal level has responsibility for administration of the major "vertical" programs, i.e., those in which benefits are administered directly by the federal government, with little intermediate role for state and local governments -- social security, nutrition, and health programs, although increasing responsibility for health service delivery is now being devolved to state governments. Most responsibilities for service delivery are lodged with the states and municipalities. The private sector also supplies a substantial share of most types of social services, particularly in secondary and higher education, curative health services, and housing construction. Existing data do not permit a consolidated estimate of private expenditure on social services, but for education and health services, it was estimated to be roughly US$21 billion in 1986. 6/ Added to public social spending, the estimated total is nearly US$70 billion, about a quarter of Brazilian (1986) GDP.

10. After social security, education is the second largest area of public social expenditure (US$10.8 billion in 1986), with about two-thirds of the total administered by state and local governments. The federal government's primary responsibility in education is support for the 35 federal universities (which account for about half of total university-level enrollments). The federal government also runs the national school lunch program and school textbook program and oversees the transfer of supplementary resources to state and municipal school systems, mainly via special negotiated agreements called convenios.

11. Housing and urban development programs, which accounted for about 17 percent of public social outlays (US$7.9 billion) in 1986 are largely administered by state and local governments, but they depend on federally subsidized mortgages formerly administered by the defunct National Housing Bank (responsibilities for which have been transferred to the Caixa Economica Federal).

12. The fourth largest component of public social spending is health care, which accounted for US$5.9 billion in 1986. Approximately 78 percent of this expenditure is for curative health services, administered by the National Institute for Medical Assistance and Social Security (INAMPS), which reimburses both private and public hospitals and physicians for services to eligible beneficiaries. INAMPS also operates a large system of ambulatory services and some inpatient facilities; some of that operational responsibility is now being transferred to the states. Basic health programs, such as infectious disease control, the distribution of essential

6/ Private education spending in Brazil (for 1983) has been estimated by the World Bank as double the amount of federal spending. (World Bank 1986, p.14). Private health spending has been estimated by Vieira (1984, tables 6 and 8), on the basis of a 1981 PNAD survey. Both of these estimates were converted to 1986 prices for the aggregate US$21 billion cited above.
drugs, and primary health care, are the responsibility of the federal Ministry of Health and state health secretariats.

13. Federal government interventions in the area of nutrition have proliferated over the past 5 years, with particularly rapid expenditure increases recently (154 percent from 1985 to 1986). Total expenditure on nutrition programs and food subsidies (excluding the wheat subsidy and the worker feeding program, PAT) for 1986 is estimated at US$656 million. Responsibility for nutrition programs is dispersed among 7 different federal ministries, which employ a range of different delivery channels (e.g., PNAE through the schools, PSA through state clinics and health posts, PNLCC through community groups). Costs of the various programs range from US$6-45 per beneficiary; overall coordination is weak. Except for recent pilot efforts to decentralize responsibility for the school lunch program (e.g., allowing the local purchase of fresh foods rather than relying on the powdered foods produced and supplied by the federal government), nutrition responsibilities are almost wholly at the federal level.

14. Public sector outlays on water supply and sanitation services amount to over US$1 billion annually. The vast majority of these expenditures have been for urban water supplies provided by the State Water Companies. Physical performance in this sector has been impressive, with the institutional basis well established (PLANASA, previously executed by the BNH, now by the Caixa Economica Federal, provides financing for the State Water Companies), and coverage is high and still improving (from 53 percent of urban households in 1970 to 82 percent in 1985). Principles of recovering costs from beneficiaries are well established, but compliance is only partially successful. The provision of wastewater disposal systems in urban areas is less satisfactory -- 40 percent of urban households still lack adequate sanitation. In recent years, the level of investment in urban sanitation has increased substantially. Basic services in rural areas are far inferior, and the level of investment still low. Coverage remains very low and institutional responsibility (currently exercised by many agencies, including the State Water Companies, the Fundacao SESP and the state health secretariats) remains to be defined, as do the technical (such as level of service) and financial (tariffs, cost recovery targets) principles for providing services in rural areas.

D. The Financing of Social Expenditure in Brazil

15. The financing of social sector programs in Brazil has 2 striking features: i) heavy reliance on earmarked taxes and/or "social contributions" to generate revenues and ii) extensive transfers of financial resources from the federal to state and local levels of government on the basis of complex, opaque, and often highly politicized negotiated agreements (convenios). Although, as seen above, state and local governments account for about half of total public social sector expenditure in Brazil and have principal responsibility for service delivery, they have little direct revenue-raising authority. States collect the value-added tax (ICM), which is an important source of state and local financing, but cannot unilaterally alter the ICM
Table 4: SOURCES AND USES OF FUNDS FOR PUBLIC SOCIAL SPENDING, 1986
(US$ billions)

<table>
<thead>
<tr>
<th>Sources</th>
<th>Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Payroll-Based Taxes/Contributions 14.6</td>
<td>Pension &amp; related benefits 20.0</td>
</tr>
<tr>
<td>(FPAS) 13.4</td>
<td>(SINPAS system) 10.6</td>
</tr>
<tr>
<td>(FGIS) 1.1</td>
<td>Education and culture 10.8</td>
</tr>
<tr>
<td>(Education Salary) 0.05</td>
<td>Housing, urbanization 7.9</td>
</tr>
<tr>
<td>(FINSOCIAL) 1.2</td>
<td>Health Care 5.9</td>
</tr>
<tr>
<td>Other Earmarked Taxes/Contributions 1.3</td>
<td>Water and sanitation 1.1</td>
</tr>
<tr>
<td>(FINSOCIAL) 1.2</td>
<td>Food and nutrition 0.7</td>
</tr>
<tr>
<td>(FAS) 0.1</td>
<td>Urban Transport 0.6</td>
</tr>
<tr>
<td>Other Federal Revenues 9.2</td>
<td>Other labor benefits 0.2</td>
</tr>
<tr>
<td>Value Added Tax (ICM) 10.3</td>
<td></td>
</tr>
<tr>
<td>Local Taxes (IPTU and ISS) 3.1</td>
<td></td>
</tr>
<tr>
<td>Other Sources /a 8.7</td>
<td></td>
</tr>
<tr>
<td>Total 47.2</td>
<td>Total 47.2</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

/ɑ Includes: PIS/PASEP (the government employees pension fund) and other social funds for which 1986 data were not available; and borrowing.

Sources: Vol. II, Part One, Table 14 for federal treasury and social funds; data transformed at US$1 = CZ$13.8. Uses of funds from Vol. II, Part Two, Table 21, based on FIBGE data for 1984 extrapolated to 1986 by Medici (1987); these estimates adjusted downward with data from Vol. II, Part One, Tables 1-7, to eliminate double counting of federal transfers to state and local governments.
tax rate or base; these are established by a federal council of State Finance Secretaries, chaired by The Minister of Finance. ICM revenues are shared between the states and municipios. The only locally levied taxes are property taxes (IPTU) and a tax on local services (ISS); these have historically generated funds for social services but have declined in importance in recent years, as state and local governments have come to rely increasingly on federal transfers. As recently as 1978, the IPTU, ISS, and local user fees accounted for 48.5 percent of municipal revenues (Mahar and Dillinger, 1983, p. 9); by the mid-1980s, this share had dropped to 40 percent.

16. About one-half of federal social sector expenditure (and one-third of total social expenditure) is financed by earmarked payroll taxes and earmarked "social contributions." Many of these revenues are not consolidated with other federal tax receipts, but are channelled directly to specific social funds, not always included in the federal budget. The largest is the social security fund (SINPAS), followed by the time-on-job guarantee fund (FGTS), the "social needs" turnov... ...ax (FINSOCIAL), and numerous others. These social contributions have proliferated, in part because they are not always included in the federal government budget (thereby avoiding much scrutiny from Ministry of Finance budget managers) and may be easily earmarked for particular programs. This earmarking, however, distorts the allocation of resources and inhibits the periodic reassessment of social expenditure -- and overall fiscal -- priorities. For example, the education salary tax, which is a major source of funds for school construction, may only be used for primary school construction and has contributed to the virtual cessation of public secondary school construction in many states.

17. General revenues of the Federal government cover about a fifth of social spending. Part of these funds are expended directly on federal programs, but substantial amounts are transferred to state and local governments under convenios.

18. Finally, internal and external borrowing is used to cover a significant share of social spending. Although state and local governments usually borrow for particular investments in physical infrastructure, they also often use borrowed funds for general payroll and other current expenses, and it is difficult to isolate the share of state and local debt outstanding that has been used to finance social sector programs.

19. These introductory comments may be summed up briefly. The Government of Brazil is anxious to improve the welfare of poor and vulnerable groups left behind in the process of development. Past governments have committed substantial resources to social programs with results that are far from satisfactory. Comparisons with other countries that have achieved better results suggest that more money alone will not improve social conditions in Brazil. Succeeding chapters address the issues of equity, efficiency, and effectiveness of social spending in order to illuminate the policy choices.
II. ISSUES AND PROBLEMS IN SOCIAL EXPENDITURES

20. This chapter describes 3 major issues regarding the way public resources for social programs are raised and used. These are:

- Mistargeting, that is the allocation of public resources to the types of programs that are not likely to reach the poor and are not effective in improving health, education, and other indicators of social welfare;
- Inefficiency in the way government social programs are managed, due in part to overly centralized systems of financing and providing services, a complex and unwieldy system of intergovernmental transfers, and inadequate use of the private sector in service delivery;
- A system of financing for social program expenditures which relies too heavily on earmarked revenues and regressive payroll taxes, fails to exploit direct cost recovery, and lacks transparency, thereby contributing to mistargeting and inefficiency.

A. Mistargeting

21. The term "(mis)targeting" was coined in a recent paper by Roberto Macedo\(^7\) to convey his overall conclusion that most federal health and nutrition programs in Brazil fail to reach the poor. Mistargeting refers to the failure of a given program to reach the group (for example, the poor) for which it is intended. Mistargeting can significantly increase the costs, and reduce the effectiveness, of public social expenditure. In Brazil, it occurs in 3 major ways:

- within sectors (education, health), relatively high public subsidies for the types of programs that are not likely to reach the poor compared with low subsidies for the types of programs that would reach the poor;
- across sectors, relatively high public subsidies in those sectors (especially housing and social security) that currently serve primarily the middle-class and the rich, compared with those sectors that currently or could potentially serve the poor (nutrition programs); and
- within programs, a failure to reach the poorest and neediest groups.

22. **Mistargeting Within Sectors.** Mistargeting within sectors is probably the most costly form of poor targeting of government social programs in Brazil, and much of this mistargeting can be corrected within specific ministries and agencies at the federal level. As will be shown below, much spending by government in Brazil goes to particular programs within such sectors as health, housing, and education that are not likely to reach the poor. Because low levels of social indicators and living standards among the poor (as much as 40 percent of the overall population) drag down national averages, the failure to reach the poor with social programs means that government is ineffective in improving the living standards and social indicators of the population as a whole.

23. For example, as noted above, public spending is high for curative hospital care compared with basic health programs such as immunization, prenatal care, and control of vector-borne diseases. Yet the latter programs are estimated to be about 5 times as cost-effective in reducing mortality (World Bank, 1986 b), for a number of reasons. First, by their nature they are much more likely to reach the poor, many of whom, in rural areas at least, live far from hospitals; it is the poor among whom mortality and morbidity rates are high. Second, they cost relatively less per life saved or per healthy day saved because, for the most part, they prevent illness before it strikes; they rely much less on expensive and sophisticated medical technologies; and they can be delivered effectively and safely by health workers whose training is shorter and less costly than the training of doctors.

24. Yet in Brazil, an estimated 78 percent of all public spending on health is devoted to largely curative, high-cost hospital care concentrated in urban areas and especially in the urban south. The remaining 22 percent is devoted to all forms of basic health care, including maternal and child health, communicable disease control, occupational health and safety programs, and immunization programs. As recently as 1950, those proportions were reversed, with the bulk of public spending going to largely preventive programs. Over the past few years, reforms described in Chapter III are beginning to redress this imbalance, but the problem is still substantial.

25. Public expenditures for university education in Brazil are extremely high compared with primary and secondary education. An estimated 23 percent of total government education spending (federal, state, and municipio) goes to universities, and only 9 percent to secondary education (Chapter III, Table 9), compared with 11 percent and 37 percent respectively, in Korea (Komenan, Table 15). There is evidence that the private and social returns to all levels of education in most countries of Latin America are high, probably justifying additional spending at any level in Brazil. But, as in other countries, the relatively high cost of higher education -- public university education costs almost 20 times as much per student in Brazil as public secondary and primary education -- means the social returns to higher education, though high, are still lower than the returns to primary and secondary education. (Psacharopoulos, Tan, and Jimenez, 1986, Table 2, report social returns to education for Latin America
to be 26, 18, and 16 percent for primary, secondary and higher levels, respectively.) The implication: Brazil could spend scarce public resources more effectively by increasing allocations for primary and especially secondary education, and reducing the allocation for higher education.

26. Reducing the relative expenditure on higher education would also mean more effective targeting of public education funds to the children of the poor, since the children of middle and higher-income families benefit disproportionately from the current expenditure on higher education. Almost 50 percent of students in public universities come from families with income above 10 minimum salaries; less than 6 percent come from families with 2 minimum salaries or less; and only 1 percent come from families with less than 1 minimum salary (World Bank, 1986a, Table 2). In 1980, public higher education spending on students from high-income families (above 10 minimum salaries) was 44 million cruzeiros (1980 currency), compared with just 1 million cruzeiros in public spending (World Bank, 1986a, Table 7) for students from the lowest-income families (less than one minimum salary income) — despite the fact that the school-age population in the latter income group is about twice as large.

27. The benefits of public spending on secondary education are also skewed, though not nearly to the extent as for higher education (since most children from higher-income families attend private secondary schools, and since spending per student in secondary schools is much lower). Education benefits are greater overall for the poorest families only at the primary level. Largely because of the inequitable distribution of higher education benefits, aggregate benefits from all levels of education are twice as large for the highest-income as for the lowest-income group, or 4 times as large per child.

28. Chapter III provides a more detailed discussion of the problem of mistargeting within each sector; it covers housing, water, nutrition, and social security as well as the health and education sectors. The examples in health and education cited here illustrate an important point at this stage in the discussion, however, namely, that it is possible for social programs in Brazil to be at the same time more cost-effective and more equitable. Put another way, improving the overall targeting of public spending will make that spending more effective. In this sense, there is no tradeoff between efficiency and equity.

29. Mistargeting Across Sectors. Governments generally take financial responsibility for social programs for at least one of two reasons: because the particular program is a public good (such as primary education), or because the program is specifically designed to serve the poor, who could not afford equivalent private services (such as certain nutrition supplement programs). In addition, governments finance some social programs because of the need to correct for certain market failures; capital market failure may justify government subsidies for student loans and health insurance. Programs in the first category need not necessarily be designed to serve a particular target group — indeed such government-financed programs as primary and secondary education and social security or
old age and disability insurance can benefit politically and financially from the participation and support of middle and higher-income households. Depending on the incidence of taxes that support such programs, government financial responsibility may not even involve any public subsidy either to a particular program or to a particular income group.

30. Brazil's relatively high social spending on housing and to a lesser extent on social security compared to other middle-income countries was shown in Chapter I. The table below compares spending on various social programs as a percentage of GDP in Brazil and Costa Rica; Costa Rica, with per capita income 20 percent lower than Brazil's, has much higher life expectancy and education levels, and a pension system considered to be relatively generous. As shown, Costa Rica spends much more than Brazil on health and much less on housing and social security.

Table 5: TOTAL GOVERNMENT SPENDING ON SOCIAL PROGRAMS AS A PERCENTAGE OF GDP: BRAZIL (1986) AND COSTA RICA (1982)/a

<table>
<thead>
<tr>
<th>Health</th>
<th>Social Sec.</th>
<th>Housing</th>
<th>Water</th>
<th>Education</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>2.2</td>
<td>7.4</td>
<td>2.9</td>
<td>0.4</td>
<td>4.0</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>6.1</td>
<td>2.1</td>
<td>0.5</td>
<td>n.d.</td>
<td>4.2</td>
</tr>
</tbody>
</table>

Notes: /a Unlike Table 2, Chapter 1, this table compares total social spending by all levels of government in the two countries.

Sources: For Costa Rica, Petrei (1987). For Brazil, same as for Table 3, Chapter 1.

31. Comparisons of relative spending across programs are difficult to interpret, but they do suggest some value in a closer look at the effectiveness and the distribution of public benefits of those programs which are relatively well-funded in Brazil. As will be briefly described in Chapter III, Brazil's housing program has failed to serve the poor and working classes, and its large subsidies to the middle and higher-income classes have been an important contributor to Brazil's financial sector and fiscal problems. Housing programs have not addressed the fundamental "housing" problems for Brazil's urban poor, namely lack of property rights and poor social and infrastructure services in urban slums, nor have housing programs contributed to the critical need for expansion of the rental housing market for the urban working classes.

32. Brazil's social security program, also discussed in Chapter III, is funded on a pay-as-you-go basis by payroll taxes; although it has not had major financial problems to date, it showed a deficit in 1987, and a larger deficit is currently expected for 1988. If current benefit levels are maintained, however, the system will face persistent and serious deficits well before the end of this century, as the proportion of the population of
working age declines compared with that of retirees. The program's generous benefits encourage early retirement (workers are eligible for early retirement after 30 years of contribution to the social security system, regardless of age) and are highly inequitable, since only relatively high-income beneficiaries are usually able to document long years of social security contributions. The average monthly benefit paid to an early retiree is 3 times higher than the regular retirement benefit, and far exceeds the inflation-adjusted sum of contributions that retiree paid during his or her work life. As noted earlier, payments to early retirees constitute 28 percent of all pension benefits and go to just 9 percent of current pensioned persons.

33. Housing and social security programs need not necessarily be specifically targeted to the poor. In Brazil, both have been funded by payroll taxes, with many benefits accruing to those who contribute. However, to the extent that some contributors are subsidized at the expense of others, the programs are not equitable even among contributors; and to the extent that the relatively better-off are more likely to be subsidized, the programs can be said to be contributing to overall inequity, rather than being at least neutral. The problem with both housing and social security programs in Brazil is that they appear to be financed by beneficiaries, but, in fact, housing has been and social security could become a major drain on the overall public budget. Given this risk, they should be subjected to the same overall scrutiny as other social programs.

34. Furthermore, if an important goal of social programs is to improve living standards and human capital development among the poor, children are inherently an important target; they receive small direct benefits from housing programs and social security compared with health, nutrition, and education programs. In part because the poor have high fertility, and in part because large family size generally reduces a family's per capita resources, most children in Brazil are "poor." In fact, although children (ages 0 to 14) constitute just 36 percent of the Brazilian population overall, they constitute 54 percent of all Brazilians living in poor households (defined as households with income per household member of one-half of the minimum salary or less). As Box 2.1 shows, an analysis of the likely distribution across age groups of Brazil's current social spending suggests that programs are particularly bad at reaching the youngest children (ages 0 to 4); these children constitute about 13 percent of the overall population but receive only an estimated 7 percent of program benefits, mostly in the form of (recently-expanded) nutrition programs. At the other end of the age distribution, the elderly (ages 65 and over), constitute 4.3 percent of the overall population and receive about 28 percent of all benefits, mostly in the form of pension and survivor benefits and health care. The box also shows that 3 in 5 households headed by women under the age of 30, most of whom have children, live in poverty.

8/ Do Valle Silva, 1987, pp. 28-29, based on PNAD 1985 data. The bottom 41 percent of households have income per household member of one-half of the minimum salary or less.
**Box 2.1: EQUITY AND THE AGE DISTRIBUTION OF BENEFITS**

More frequently viewed in a geographic or regional context, the equity issue in Brazil can also be considered in terms of the differential distribution of social program benefits among various age groups. Even if health care, water, sanitation, housing, urban services, and other benefit programs are provided to the community at large irrespective of age, the important share of public spending on retirement payments skews benefits to the elderly. The subsequent lack of consistency between the distribution of social benefits and the age structure of the population is indicated in the chart below.

**Figure 1: AGE DISTRIBUTION OF POPULATION, 1985, AND SOCIAL PROGRAM BENEFITS, 1986**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>65 and over</td>
<td>4</td>
<td>BBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB</td>
</tr>
<tr>
<td>55 to 64</td>
<td>5</td>
<td>BBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB</td>
</tr>
<tr>
<td>40 to 54</td>
<td>16</td>
<td>BBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB</td>
</tr>
<tr>
<td>25 to 39</td>
<td>18</td>
<td>BBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB</td>
</tr>
<tr>
<td>20 to 24</td>
<td>10</td>
<td>BBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB</td>
</tr>
<tr>
<td>15 to 19</td>
<td>10</td>
<td>BBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB</td>
</tr>
<tr>
<td>5 to 14</td>
<td>23</td>
<td>BBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB</td>
</tr>
<tr>
<td>0 to 4</td>
<td>13</td>
<td>BBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB</td>
</tr>
</tbody>
</table>

**TOTAL** 99 100

**Note:** Each N = 1 percent of population; each B = 1 percent of benefits. Benefits are distributed across age cohorts as follows: Health, water and sanitation, housing, urbanization, labor, and urban transport are distributed equally per capita in each age group. Food and nutrition are divided equally between 0-4 and 5-14 age groups. Education and culture are distributed in the same proportion as the sum of federal and state education spending in 1985 (1986 data not available); with all primary spending attributed to the 5-14 age group, secondary to the 15-19 group, and higher education to the 20-24 age group. Social security benefits are distributed as one-third to the 55-64 age group, 60 percent to the 65 and over age group, and the remainder to children age 0-4 for social assistance programs.

**Source:** Age distribution of population (IBGE 1985, 76). Does not add to 100 percent due to rounding errors.

Under the current allocation of social expenditure, low-income children receive little in the way of benefits. Children under 5 years of age constitute 13 percent of the Brazilian population but receive only an estimated 7 percent of total program benefits. The analysis of Pnad85 showed that one-third of the lowest-income households (defined as having household income per family member of less than 1/4 of a minimum salary) have 4 or more children under age 16 to support. Among families in the upper fifth of the income distribution (with household income
per family member over 2 minimum salaries), only 1 household in 50 has 4 children or more under age 14. These data lead to two distinct but related conclusions: The majority of Brazilian children are poor (53.1 percent), and the majority of the poor are children (54 percent) (do Valle Silva 1987, pp. 28-29). Recent expansion of food and nutrition programs accounts for much of the current support for small children.

The elderly (4.3 percent of the population) receive a disproportionately large 28 percent of social program benefits, in the form of health care and pension and survivor benefits. Groups in prime working age, between 25 and 54 years (33.8 percent of population), receive a relatively small share of benefits (11.0 percent). The large share of benefits (22.0 percent) accorded to children aged 5 to 14 years (23.1 percent of the population) seems broadly appropriate given the policy to provide universal public primary education. The dropoff in the share of benefits for those aged 15 to 19 is indicative of the low rate of school attendance at the secondary level. The older middle-aged group, those aged 55 to 64 years, receive an estimated one-third of all pension and survivor benefits because of the frequency of early retirement among people in that age group. Only a few in that age group qualify for this benefit because most low-income workers are unable to document their employment over many years, as required by the social security administration.

Another dimension of age-based social inequity is the likelihood of households headed by young women to be living in poverty, as demonstrated in the chart below:

**Figure 2: PROPORTION HOUSEHOLDS LIVING IN POVERTY, CLASSIFIED BY AGE AND SEX OF THE HEAD OF HOUSEHOLD, 1985 (PERCENT)**

<table>
<thead>
<tr>
<th>Age of Head</th>
<th>Male Head</th>
<th>Female Head</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 30</td>
<td>32.8</td>
<td>59.0</td>
</tr>
<tr>
<td>30-39</td>
<td>36.7</td>
<td>43.8</td>
</tr>
<tr>
<td>40-49</td>
<td>34.3</td>
<td>35.0</td>
</tr>
<tr>
<td>50-59</td>
<td>28.9</td>
<td>29.8</td>
</tr>
<tr>
<td>60+</td>
<td>34.8</td>
<td>37.6</td>
</tr>
</tbody>
</table>


Nearly three in five households headed by women under the age of 30 live in poverty, partly due to the scarcity of wage earners in these families relative to the number of dependents. Households headed by young women are statistically most likely to have many young children who are not yet old enough to work (and who will eventually drop out of school at an early age to help supplement family income).

Sound macroeconomic management help create demand for labor, but these households headed by women are likely to be left behind in the development process. Their prospects for overcoming poverty may depend upon the availability of such basic services as health care, day-care facilities, family planning, food assistance, potable water, and housing. Better targeting — taking into account the sex of the head of household — could help assure that these social programs reach those most in need.
35. Thus the balance among social programs itself has a bearing on the extent to which social programs as a group reach the poor. The problem is by no means unique to Brazil. A major criticism of social programs in the United States has been that the elderly, due in part to their superior political influence in the democratic elective process, have secured large social benefits from government compared with those of children, though it is children whose human capital development is crucial for long-term social progress and economic growth (Moynihan, 1986 and Preston, 1984).

36. Mistargeting Within Programs Brazil has 7 large food and nutrition programs run by 7 different federal ministries and agencies, with overlapping targets and conflicting administration. The bulk of their spending is not effectively targeted to groups most in need. The nutrition sector offers perhaps the greatest potential for increased cost-effectiveness and better targeting through change and reform of existing federal programs.

37. In 1986, an estimated 1.4 percent of all social expenditures in Brazil went to food and nutrition programs (Chapter I, Table 3), excluding the wheat subsidy and the Worker Feeding Program (PAT). Data on the nutritional status of the Brazilian population is limited, but the informed consensus within Brazil is that malnutrition is as serious today as it was in the 1970s, a view that is substantiated in part by the increase in infant mortality experienced during the early 1980s; infant survival rates are highly sensitive to nutritional status. The rapid increase in federal spending for nutrition programs in 1985 and 1986 has represented a strong effort to respond to nutrition problems.

38. In his review of Brazil's federal nutrition programs, Macedo scores them (a simple pass-fail) using such targeting criteria as whether their objectives preclude access by the higher-income groups, whether they cover the rural and informal sectors, and whether they include a particular concern for the Northeast, where the majority of Brazil's poor reside (an estimated 59 percent of all households with per capita income below one-quarter of a minimum salary live in the Northeast.)

9/ In 1986, more than 80 percent of all nutrition spending (Macedo's cost data) went to three large programs which do not preclude access by the non-poor: the consumer wheat price subsidy (subsequently reduced, but again important in early 1988 as inflation has eroded the effect of wheat price increases); the national school lunch program (which has educational benefits as well as nutrition benefits), and the worker's food program. With the exception of one small program, PROCAB, none serves rural areas, and the wheat subsidy and the large national milk distribution program (more than 50 percent of all spending) have no particular concern for the Northeast.

39. Options to improve the targeting of nutrition programs include: elimination of the wheat price subsidy; elimination of the worker feeding program (whose beneficiaries are concentrated in the high-wage

9/ Do Valle Silva, op. cit.
manufacturing sector and in the Southeast); and restriction of federal funds for school feeding programs to schools in poor neighborhoods and/or to states in the Northeast. In addition, existing programs could be more effectively linked to health programs, particularly maternal and child health care programs, since research consistently shows that it is children and pregnant and lactating mothers who are the most vulnerable to malnutrition. Details on Brazil's nutrition programs and on approaches to improved targeting are provided in Chapter III.

40. **Mistargeting: Who Benefits from Government Social Spending?**

Other countries have sponsored surveys to determine which regional, income, or ethnic groups receive the benefits of social expenditures (see Selowsky [1979] on Colombia and Meerman [1978] on Malaysia). No such survey was conducted for this study; thus, for Brazil there are no definitive data on the extent to which persons or households of different incomes and regions benefit from government social spending. However, information from household income and expenditure surveys can be combined with information on the distribution of government spending across different programs to produce a picture of the probable distribution of social program benefits across income groups.

**Figure 3: PROBABLE DISTRIBUTION OF SOCIAL BENEFITS, BY INCOME CLASS OF LIKELY RECEPIENTS, 1986**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;2</td>
<td>NNNNNNNNNN</td>
<td>16</td>
<td>SSSSSSSSSSSSSSSSSEEEEEUUUUUHHW</td>
<td>34</td>
</tr>
<tr>
<td>1 - 2</td>
<td>NNNNNNNNNN</td>
<td>18</td>
<td>SSSSSSSSSSSSSSSSEEEEEUUUHHW</td>
<td>22</td>
</tr>
<tr>
<td>1/2- 1</td>
<td>NNNNNNNNNNN</td>
<td>24</td>
<td>SSSSSSSSSSSSSSSSEEEUHHLW</td>
<td>24</td>
</tr>
<tr>
<td>1/4-1/2</td>
<td>NNNNNNNNNNN</td>
<td>22</td>
<td>SSSSSSSSSSUHHLHFF</td>
<td>14</td>
</tr>
<tr>
<td>&lt;1/4</td>
<td>NNNNNNNNNNN</td>
<td>19</td>
<td>SSSSSSSSSSSSSSSSSSSHHH</td>
<td>6</td>
</tr>
<tr>
<td>===</td>
<td></td>
<td>99</td>
<td></td>
<td>100</td>
</tr>
</tbody>
</table>

**Note:** Each N = 1 percent of population, which in 1985 totalled 135 million. Population percentages add to 99 because of rounding.


**Sources:** Income groups from PNAD85, special tabulations presented in do Valle Silva (1987), p. 15. Percentage distribution of benefits is based on Table 3, p. 6 and assumptions described in the accompanying text.
41. Figure 3 compares two distributions. On the left is the Brazilian population divided into income groups, with each letter N representing 1 percent of the population. At the bottom are the 19 percent of Brazilians who live in households with average income per household member below one-quarter of the minimum salary -- about US$180 per year per household member in 1985, when the survey underlying these data was conducted. The next higher income group, comprising 22 percent of Brazilians, consists of households with average income per member of no more than one-half of the minimum salary. By almost any standard of absolute income, these 2 groups, which account for 41 percent of the population, can be considered poor. At the other end of the income distribution, about 16 percent of Brazilians live in households with income per household member above two minimum salaries, or more than US$1,440 annually per person in 1985.

42. The right side of Figure 3 illustrates the probable distribution of the benefits of Brazilian social programs across income groups, combining estimates explained below for each of the programs. It should be noted that the figure illustrates the distribution of benefits without taking into account the extent to which some programs, such as social security, are financed through the payroll contributions of future beneficiaries.

43. Social security (S) is the largest program, accounting for 42 percent of social expenditure in 1986. Its distribution reflects the fact that for the two bottom income groups, only 1 in 5 heads of households are social security affiliates (do Valle Silva, 1987, 26). On the basis of this, and data indicating that somewhat less than half of all Brazilian workers are covered by social security, it is estimated that the 41 percent of the population in the 2 lowest income groups receive about 8 percent of all social security benefits. The other income groups are assigned successively more on a per capita basis (and presumably contribute successively more).

44. Education (E) is distributed to reflect the results of previous research (World Bank 1986a) on income distribution and enrollment shares for each level of the Brazilian public school system and estimates of total public expenditure on each level of education (Vol. II, Tables 62-64.)\textsuperscript{10} For Figure 3, the same pattern of educational participation and the same breakdown of public spending among primary, secondary and higher education that were found in 1982/1983 were assumed to hold for 1986. The highest shares of total education benefits were captured by families in the top three income groups, and benefits per capita increased with increasing income, due largely to the high participation of upper income groups in public university education, which is much more expensive per student than secondary and primary schooling. The lowest income group, with 19 percent of the population, on the other hand, received less than 15 percent of

\textsuperscript{10} Annex Table 62 shows the distribution of students at each level of education based upon family income (for 1982). In order to convert these data to the format of Figure 3, an average family size of four (IBGE Anuário Estatistico do Brasil, 1985) was assumed.
education benefits, reflecting the fact that few children from these households advance beyond primary school. It should be noted, however, that, overall, the distribution of education benefits is fairly progressive compared with other social programs, mainly because low-income households have significantly more school-age children than do higher-income households (see Box 2.1, p. 16).

45. The distribution of housing (U) and health (H) benefits is based on the assumption that the lowest income group is mostly rural and receives no housing benefits and few health benefits. Despite the government’s objective of extending these services to the poor, much remains to be done to provide rural coverage.\textsuperscript{11/} The benefits from nutrition and food programs (F), were assigned to the second-lowest income group which is assumed to include more of the urban poor than does the lowest income category. Transport (T) benefits were also allocated to the second-lowest income group, as these families are more likely to live in urban areas and to have a regular wage earner than are families in the lowest income group, yet are less likely to own a car than are families in the higher income groups. Unemployment and related labor benefits (L) were distributed to the middle income group (1/2 - 1 minimum salary per household member), as this is the income class of workers most likely to have established rights to these benefits. Water supply benefits were assigned to the three highest income groups, because access to piped water and sanitation services is better in higher-income areas.

46. The estimates of Figure 3 can also be viewed in terms of social benefits per capita for each of the 5 income groups. Graph 1 translates the aggregate value of social expenditure in 1986 (US$47.2 billion) into social spending per capita -- ranging from approximately US$110 per year for individuals with family income of less than 1/4 of a minimum salary per household member to US$737 per year for those with income above 2 minimum salaries per household member.

\textsuperscript{11/} A study in neighboring Colombia found that health services, especially maternal and child care, offered through the health ministry do go preferentially to the poor. Services offered by that country’s social security system were, in contrast, mostly received by middle income groups (Meldau 1980). Brazil is broadly similar to Colombia in this respect; the equity of services offered through the health ministry and state health secretariats is probably greater than those provided by INAMPS, which has 8 times more resources than the federal health ministry. Thus, the current consolidation of INAMPS facilities under state health secretariats should improve equity as it proceeds.
47. Because the distribution of social program benefits developed for Figure 3 is largely notional and not based upon any detailed studies, the dollar values in Graph 1 are indicative only. The broad trend represented -- of increased program benefits with increasing per capita household income -- is clear, however. The lowest income group, which constitutes 19 percent of the Brazilian population, receives well under 10 percent of program benefits. The next higher income group, 22 percent of the population, receives less than 15 percent of social program benefits. The highest income group -- with 16 percent of the population -- receives over a third of total social benefits. Estimated social program benefits per capita for the rich, as Graph 1 shows, are seven times higher than benefits per capita for the lowest income group.

48. How does this distribution of social spending by income class compare to the distribution of income? Calculations drawn from the data shown in Figure 3, and consistent with previous findings about Brazilian income distribution (Tyler and Denslow, 1983, p. 17), show that the top group (with household income per family member over 2 minimum salaries) received about 60 percent of aggregate household income in 1985. In descending order, the next four groups received an estimated 19 percent, 13 percent, 6 percent, and 2 percent, respectively.

49. When the estimated distribution of social benefits per capita is compared with the estimated distribution of income per capita (Graph II), a
somewhat different perspective emerges. Per capita social spending in Brazil is clearly skewed to the middle and upper classes, but far less than the distribution of income. For a complete picture, of course, the incidence of taxation among these income groups would also have to be considered, as it is likely that the higher income groups also pay more in taxes (including indirect taxes and social contributions). Actual data on the incidence of taxation by income groups are not available; however, if it is broadly assumed that taxation is to some degree proportional to income, the data in Graph II suggest that social expenditure patterns are to some extent redistributive, helping to mitigate some of the effects of an extremely unequal income distribution.

Graph II: Social Benefits and Income

Probable Distributions (1986)

- Benefits/Capita
- Income/Capita

Sources: Figure 3, do Valle Silva (1985), Denslow and Tyler (1983)

This broad conclusion requires an important caveat, however. In the distribution of social benefits above, the average value of program benefits was assumed to be constant across income groups. In reality, there are very large disparities in the quality and unit costs of social services available in different regions in Brazil -- or available to lower-income families compared with richer ones. For just one example, the unit value of primary education (per student) assumed in Figure 3 and Graph I was US$149 per year (see p. 39). Ministry of Education surveys (MEC, 1984) have shown, however, that annual costs for state primary education range from US$32.6 per student in Piaui to US$306 per student in Rio de Janeiro. The situation is similar for hospital care and health services, housing, water
supply, and other social services. Therefore, the average values presented
in Graph I almost certainly overestimate the true cost of social benefits
per capita for the lower-income groups and underestimate the value of
benefits for upper-income groups. Nonetheless, it is evident that the
benefits from public social spending are much more important, relative to
their income, for poor families than for middle- and upper-income families.
Put another way, even modest shifts in social expenditure patterns in favor
of low-income families could have significant impact on their total family
resources and (assuming some effectiveness of social spending) welfare. By
the same token, Graph II strongly suggests that among wealthy families, the
impact of modest expenditure shifts may be negligible.

51. Targeting Social Expenditure: Theory and Practice. This chapter
discussed the ways in which mistargeting undermines both the cost-
effectiveness of Brazilian social expenditure and the Government's goal of
improving social equity. With improved targeting, current levels of public
social spending could achieve substantially more, in terms of aggregate
social welfare. It is important, however, to keep the merits of targeting
in perspective. Not all social expenditure should be targeted. As
discussed in Box 1.1, many basic functions of government are of a public
goods nature, and it is most efficient to distribute such services (malaria
control, environmental protection, immunizations, primary education, social
insurance for old age, etc.) to all members of society, regardless of
income.

52. A second consideration is the differential tax burden of different
income groups. To some extent, those who pay higher taxes have a right to
expect a proportional share of the benefits of government expenditure. And
indeed, in most countries, as in Brazil, the benefits of public social
expenditure rise with per capita income (no major studies have actually
correlated social benefits with per capita tax burden). (see Le Grand, et
al., 1987)

53. Despite this reality, most countries accept the need for public
social expenditure to help the poorest and most vulnerable members. Only
with some targeting of public funds to support the poorest groups can these
be assured of opportunities to build their human capital through education,
and improve their productivity with adequate health care. Only with
targeting can vulnerable groups such as infants, children, the elderly and
the infirm be shielded from hunger, chronically poor health and disease,
and the social and economic costs of illiteracy. Targeted social
expenditure can help reduce the gap in living standards, educational
attainment, nutrition and health status between the poorest and the richer
members of society, and, in doing so, help assure the long-run growth
potential of the economy, political stability, and social order. For these
reasons, the development of a social "safety net" is an explicit goal of
social programs in many countries.

54. In theory, a social "safety net" should be aimed at the lowest-
income population. In practice, however, income-based targeting can be
difficult and administratively costly, even in countries with well-
developed tax systems and income reporting (Kanbur, 1988). In most
developing countries, such as Brazil, though, considerable improvement in
targeting is possible well short of perfect income-based targeting. Other
indicators can be used to identify target populations efficiently, such as
neighborhoods (most slums are overwhelmingly inhabited by poor people) or
age (health programs, for example, can easily be targeted to infants and
small children), or status (pregnant and lactating mothers, an important
target group for nutrition interventions, are easily identifiable).
Targeting based upon neighborhood was successfully introduced in a nutrition
project in Northeast Brazil financed by the World Bank in the late 1970s; in
place of the distribution of food coupons to households on the basis of
estimated household income, the project used subsidies for basic foods at
small retail stores in poor neighborhoods. Leakage of benefits to people
not in need was estimated to be small, compared with the administrative
costs of a coupon program (World Bank, 1986c).

55. A greater barrier to effective targeting is often a political one,
since targeting can require reduction of existing benefits enjoyed by the
middle-class and the rich. For many programs, it may also be difficult to
assure stable funding unless there is a firm base of support from the
middle-class; indeed, in the case of public education in Brazil
(particularly secondary schools), the withdrawal of middle-class support and
interest over the past twenty years has undoubtedly contributed to the
deterioration of education quality. Some programs that are currently
untargeted, such as the school food program and nutritional supplementation,
on the other hand, could probably be better targeted to poor children
without loss of political support. The lesson, in any event, is the need to
examine the targeting objective on a program-by-program basis, taking into
account both administrative costs and political realities.

B. Management of Social Programs

56. Controlling the costs and maximizing the internal efficiency of
social services is inherently difficult. Owing to their "public goods"
nature (see Box 1.1) and the prevalence of government subsidies,\footnote{12/}
public social services are rarely in direct competition with the private sector,
and public sector administrators face few pressures for accountability and
cost-effectiveness. In general, the more tenuous the links among those who
pay for, provide, and utilize social services, the easier it is for
inefficiency to arise.

57. Public sector social services in Brazil are no exception to these
tendencies, and, although the management of many programs is the
responsibility of state and local agencies, federal expenditure patterns are

\footnote{12/ In 28 developing countries surveyed by Jimenez (1987, p. 2), the
share of public costs recovered through fees for higher education was 9
percent; secondary education, 15 percent; primary education, 5 percent; and
health, 7 percent.}
a major contributor to internal inefficiency in social service delivery. There are 4 main reasons for this:

i) centralization at the federal level of certain programs that could be more efficiently managed in a more decentralized fashion;

ii) a complex and non-transparent system of intergovernmental resource transfers, which is a source of excessive transactions costs, financial uncertainty, and political manipulation;

iii) inappropriate use of the private sector in social service delivery; and

iv) lack of incentives for cost-effective approaches to social service delivery at all levels of government.

58. Overly Centralized Federal Programs. The nationwide school lunch is an example of the program inefficiencies that arise from overly centralized administration. While the Fundo de Assistencia Escolar (FAE) has begun a limited decentralization program, to date it affects only 83 municipalities and 1.6 million out of a total of 32 million students. FAE's highly centralized system of food production, storage, and nationwide delivery has been plagued by significant spoilage and theft of foodstuffs from FAE warehouses as well as high transportation costs. Cash transfers to the municipalities could result in reduced costs as well as stimulation to local economies resulting from local procurement of foodstuffs.

59. Similar difficulties characterize the federal in-kind transfer programs for textbooks and school supplies (also FAE). These highly centralized programs are not responsive to local needs. The textbook program, for example, allows school teachers to list preferences for textbooks, but they do not know which textbook they will receive and the textbooks sometimes do not arrive until after the start of classes. Several states (Parana, Sao Paulo) have opted for their own textbook distribution systems, on the grounds that their more efficient administration outweighs the large volume discounts that FAE commands from publishers. Further decentralization should be considered, after examination of comparative costs.

60. Inefficient Intergovernmental Transfers. More important than the efficiency losses of centralized federal programs are inefficiencies associated with the unwieldy system of federal resource transfers for state and locally administered social programs. Even where transfers are made on the basis of clearly defined and objective criteria, uncertainty generally surrounds the timing of these transfers, and in an inflationary economy the real value of the resources can be quickly eroded, forcing agencies into inefficient budget adjustments, "start and stop" construction programs, disrupted procurement, and delayed maintenance. Of even greater concern are the 26 percent of federal revenue transfers which are governed by convenios -- specific and highly discretionary negotiated agreements between federal agencies and individual state or municipal agencies. These generally
complex and opaque agreements preserve the longstanding tradition of "clientelismo" and tend to reduce efficiency even where political interests are not at stake. They also, as discussed below, reduce the incentive for states and municipalities to contain the costs of programs.

61. Reliance on federal transfers via convenios is greatest in the North and Northeast, which in 1985 received 28 percent and 11 percent, respectively, of their total social expenditure resources through convenios. To what extent it has been exacerbated by the use of convenios is unclear, but in the Northeast poor accountability in the use of federal resources has reached alarming proportions. Unpublished estimates by the federal Ministry of Education last year, for example, suggested that for every 100 cruzados in the federal budget allocated to Northeast Brazil primary schools, only 52 cruzados were spent on direct classroom costs (books, teachers, supplies, etc.), indicating that a large share of funds were absorbed by administrative costs (vehicles, office supplies, etc.) and salary payments to large numbers of "teachers" with no classroom responsibilities. A separate Ministry of Education study comparing general administrative costs to direct classroom costs for the state school systems of Piauí and Sao Paulo found similar evidence of gross inefficiency; in Sao Paulo, indirect (administrative) costs per student were 7 percent of direct costs, while in Piauí, administrative overhead equalled 70 percent of direct costs.

62. Similarly detailed cost studies do not exist for other social programs, and it is difficult to say whether this degree of internal inefficiency is widespread. Nevertheless, these examples suggest that for certain kinds of programs, increased federal spending is not an efficient route to increased program effectiveness.

63. **Inappropriate Use of the Private Sector.** There is a large private sector in health, education, and housing in Brazil with potential to contribute substantially to overall social goals. For example, Brazilian households spend an estimated US$21 billion on private health and education services (compared to about US$50 billion spent by all levels of government). In addition, there is a small but rapidly growing private voluntary sector active in health, nutrition, pre-schooling and child care, and other social welfare programs. However, public sector activity in the social areas is often not designed to complement private sector activity by supplying explicitly only those services that the nongovernment sector either cannot or is not likely to provide; or by providing services targeted to the poor, who have limited access to or cannot afford private services. Moreover, public sector displacement of private sector delivery of "private goods" tends to reduce overall efficiency because public sector agencies lack the profit-maximizing, competitive pressures of the private sector.

---

64. As noted repeatedly in this report, the public sector in Brazil is active in such largely "private goods" as curative medicine and technical and higher education, and puts relatively few resources into basic health care, supplementary nutrition for the poor, and primary and general secondary education. The government also gives relatively little attention to public education to encourage better health habits (anti-smoking campaigns, improved diet, family planning options) and to consumer information about the quality and prices of privately provided goods and services (pharmaceuticals, private training centers and universities, private hospitals).

65. Large public subsidies for "private" goods and relative neglect by the public sector of largely public goods is both a cause and a manifestation of the poor overall targeting of government efforts in the social sectors discussed in the previous section. At the same time, the public sector regulates the private sector in ways that reduce the overall efficiency of private and public programs in the social sectors. On the one hand, the government offers some incentives to the private sector that are excessive. For example, as shown in Chapter III, taxpayers are allowed generous deductions for private expenditures on health care, and these are exploited to a significant extent by high-income households; in 1984, 62 percent of all medical deductions were taken by the top quintile of taxpayers. Deductions available for private education spending and home mortgage interest very likely have similar regressive effects.

66. On the other hand, government policies discourage private sector activity in some of the areas where it is most efficient. Studies in a growing number of countries have demonstrated that private schools consistently outperform public schools in terms of student achievement and are an efficient source of providing education (Psacharopoulos, 1987; Cox and Jimenez, 1988; Jimenez, Lockheed, Wattanawaha, 1988); yet in Brazil, government control of private school tuitions has limited the expansion of private education and undermined the quality of instruction. Moreover, the government policy of fully subsidized public university tuition for the few means that private universities cannot really compete for the cream of the crop of able students. It is actually lower-income students who end up paying tuition at private, often low-quality universities. In a vicious circle, regulation of tuition at private universities constrains their ability to raise revenues to improve quality. At the same time, the poor quality of public primary and secondary education means that few who cannot afford private school at these lower levels ever manage to complete more than 4 or 5 years of school, so that only the privileged or the lucky are in a position to compete for fully subsidized university places.

67. Lack of Incentives for Cost-Effectiveness. The lack of transparency and accountability in the organization and financing of social programs inhibits the search for cost-effective approaches at all levels of government. The complex and subjective system of intergovernmental transfers discourages cost control by state and local governments and encourages inflated federal funding requests; why should an agency try to spend less, if it simply means that another agency (or other regions) will
get more? Conditioning increases in federal allocations on improvements in internal efficiency and cost sharing by local governments is a possible solution.

68. In health, the INAMPS system assures reimbursement directly to health care providers, and neither patients nor providers (whether public or private) have an incentive to reduce the number and/or cost of medical procedures. Over the last few years, INAMPS has begun to require that patients have a referral from an INAMPS physician before utilizing private facilities, but the system has far to go in curbing the escalating costs of health care. The problem is by no means unique to Brazil, but it is a serious problem in Brazil, and in the absence of additional incentives to lower costs, could become worse. In recent years, private hospitals contracted by INAMPS have performed, on average, five tests per diagnosis more than the recommended international standard. The number of X-rays reimbursed by INAMPS has increased 10 times faster than medical consultations in the last 15 years, and laboratory tests are increasing by 20 percent per year.

69. A telling example of unnecessary health costs discussed in Chapter III is the very high rate of cesarian section deliveries, 72 percent of which are reimbursed by INAMPS, and a large share of which are performed in private hospitals for middle and upper-income women. Brazil’s rate of cesarian births (31 percent of all hospital births) is the highest in the world. One means of cost control for INAMPS would be to charge middle and upper-income patients for the additional costs of C-sections over normal deliveries. The potential savings from this action alone could finance prenatal services for the 1.5 million Brazilian women who give birth with no access to pre-natal care, but there is no incentive for such expenditure shifts in the Brazilian health care system today.

70. The drive for efficiency in resource use is conspicuously absent at all levels of public social expenditure in Brazil. Agencies in every sector -- echoing the patterns of federal expenditure -- favor high-cost services for the few, rather than cost-effective approaches that could benefit much larger segments of the Brazilian population. In Sao Paulo, where only 350,000 out of 3,000,000 pre-school age children have access to public pre-school, public demand is so strong that the municipality of Sao Paulo this year is constructing more new pre-schools than primary

---

14/ Dr. M. R. Chassin, et al., "Does Inappropriate Use Explain Geographic Variations in the Use of Health Care Services?", JAMA (The Journal of the American Medical Association), Vol. 258, No. 18, November 13, 1987, pp. 2533-2537. The study, which examined the frequency of 3 procedures (coronary angiograms, carotid endarterectomies and upper GI endoscopies) commonly performed on Medicare patients, concluded that as many as one-third were unjustified and that $850 million a year could be saved.

15/ An additional 140,000 children attend private pre-schools in Sao Paulo, but these are overwhelmingly children from upper-income groups.
schools. Nonetheless, its limited budget permits it to serve fewer than 30,000 additional children per year. An important reason for this is the high-cost approach favored by the municipality, which uses only fully-qualified primary-level teachers and new, free-standing buildings. Yet in the same city, researchers at the University of Sao Paulo have tested a dramatically lower-cost approach to pre-school child care (making use of mothers in the community on a rotating basis to supplement trained teachers and using existing community buildings, such as churches) and have demonstrated positive effects on child development and subsequent primary school performance. Adoption of this approach would enable the municipality of Sao Paulo to reach 5 times as many pre-school children with the same budget. However, given entrenched patterns of public expenditure in Brazil, the municipality, and, indeed, similar agencies throughout the country, feel little incentive to reassess traditional approaches. Federal government matching programs that explicitly encourage the development, testing and implementation of more cost-effective modes of delivering social services are needed to alter this environment.

C. Financing Systems

71. The problems of mistargeting and inefficiency in Brazilian social programs are to some extent caused, and to some extent exacerbated, by the way they are financed. In theory, the most efficient way to finance social programs is to match, as closely as possible, the sources and uses of funds (i.e., to approximate user fees). This helps to ensure that resources are allocated to the services in greatest social demand and that service quality is acceptable; otherwise, it quickly becomes difficult to recover costs from the users. Governments deviate from this maxim, however, for a variety of reasons; there may be important economies of scale in resource mobilization (i.e., local government administrative capacities may be limited), or large regional disparities in income which can only be reduced through transfers from a central revenue source. Both of these factors, but particularly the second, are features of the Brazilian fiscal structure.

72. While the use of centralized sources of financing for public social services in Brazil has important justifications, it also creates significant problems. For example, it necessitates large intergovernmental transfers that can, as discussed earlier in this chapter, create financial uncertainty and invite political manipulation. Equally important, as executing agencies become dependent upon centralized financing sources, they become less attuned to service quality and efficiency. Overcoming these problems, while retaining a centrally financed system, requires special attention. Two potentially important aids in this process discussed later in this section are: i) in lieu of convenios, a transparent system of federal government transfers to "match" state and local commitments that

16/ See Educacao e Alimentacao do Pre-Escolar, by Prof. Yaro Gandra et al., Revista de Saude Publica, December 1981.
reflect local consumer demand and community priorities; and ii) the use of
direct cost recovery for services wherever feasible.

73. In addition to these issues, there are 2 major problems with the
types of taxes used to finance social programs in Brazil. First, the very
large share -- approximately 50 percent -- of all federal revenues for
social programs raised through payroll taxes has distortionary effects on
the overall economy and regressive effects on the poorest segments of the
Brazilian population. There is little quantitative information on the
specific effects and incidence of these taxes in Brazil (which depend upon
the supply and demand elasticities for labor, capital, and final goods).
However, on the production side, payroll taxes for social programs add an
estimated 33 percent to the wage bill, almost surely altering relative
factor prices to favor capital over labor and lowering employment. Although
it is commonly believed in Brazil that these payroll taxes are borne by
employers, most economic analyses in other countries have concluded that
they are either borne by workers through lower net wages (if labor supply is
relatively inelastic) or shifted forward into the final prices of goods
produced and thus borne by consumers. In either case, these effects
disproportionately hurt lower-income groups (which, except for the rural
poor, tend to be wage-laborers and which generally consume a higher
proportion of their incomes than do higher-income groups), while, in Brazil
at least, the benefits of the services they finance go disproportionately to
better-off individuals.

74. The second problem is that many of the taxes used to finance
social programs are earmarked and therefore likely to lead to overspending
on particular social services or misallocation of resources within sectors.
As noted in Chapter I, the education salary tax is restricted to
construction of primary schools and has left administrators with a shortage
of funds for secondary school construction; to get around this,
administrators throughout the country hold secondary school classes at night
in the primary school buildings, squeezing teen-aged students into desks
designed for small children. A more profound example is Brazil’s heavy
investment in one of the largest networks of public vocational/technical
training (VTE) institutes in the world; SENAI, SENAC, SENAR and FUNDACENTRO
train some 1.6 million individuals per year. (To put this in some
perspective, the Brazilian public secondary school system graduates about
800,000 students each year.) An important reason for the expansion of
vocational/technical training is the existence since the 1940s of an
automatic, earmarked financing mechanism -- a 1 percent payroll tax on
industrial and service workers -- whereas secondary schools have had to
compete for general budgetary resources. A more efficient educational
structure might result if VTE programs were financed out of a single pool of
resources in competition with other education programs.

75. To improve the efficiency of intergovernmental resource transfers
and to stimulate the mobilization of resources at the state and local
levels, the use of convenios should be replaced with transparent mechanisms
such as federal block grants and matching funds. A good example of the use
of matching funds is provided by current World Bank urban projects for
municipal development in the states of Parana and Santa Catarina. Because of regional income disparities, matching funds should be administered so that the contribution of the federal government varies, in inverse proportion to state per capita income. To address the problem of mistargeting, wider introduction of direct cost recovery for public social services at the state and local level would have numerous advantages. Direct cost recovery is valuable not only as a supplement to public sector resources, but also (and perhaps more importantly) as a stimulus to service quality, efficiency and attentiveness to end-users. Given the evidence discussed in this chapter that a preponderant share of social program benefits and public subsidies in Brazil are claimed by middle and upper income groups, direct cost recovery is the most supple and efficient way to tap these groups’ capacity to pay and to improve the targeting of public social expenditure.

76. In the absence of efforts at direct cost recovery, the federal government is using its tax resources to finance some services — such as retirement and dependents’ insurance, higher education, curative health care, and housing — that might alternatively be purchased or cofinanced by private households and firms. Households that are willing and able to pay for services reduce their spending on education when the federal government funds free universities, and on curative health care when INAMPS provides full reimbursement or the government allows generous tax deductions. High-income households benefit from the wheat subsidy by reducing their own food expenditures. Federal housing subsidies and tax breaks can also distort the urban housing market by subsidizing mortgages and inducing excessive housing purchases, particularly by middle-income households. All of these programs need to be examined to see whether public spending is “crowding out” or substituting for private expenditures, and whether private households’ capacity to pay cannot be efficiently mobilized through direct cost recovery.

77. Finally, it is useful to bear in mind that when public funds are used to finance services that confer most of their benefits on individual recipients rather than on society as a whole, and when government cannot afford to provide everyone with the services, it is knowledgeable (and generally higher-income) individuals who are best able to capture these advantages: by knowing how to solve the administrative problems of receiving retirement benefits; by knowing the physicians who can arrange for quality treatment at public expense; and by paying for quality secondary schooling that opens the door to free public universities. For all of these benefits, the urban middle class has a big advantage over the poor, and particularly the rural poor. If public funds were not used to finance these benefits, middle-income groups could and would pay for them.
III. MAJOR SOCIAL PROGRAMS

78. This chapter provides more detail on the financing and organization of the major social services in Brazil: social security; education; housing and urban services, including water and sanitation; health; and nutrition. For each sector, the discussion indicates how the financing and delivery of services affects achievement of the targeting (or equity) and efficiency objectives discussed in Chapter II. The chapter is, however, by no means an exhaustive survey of issues in these sectors. It reflects the results of the mission as well as current thinking among Brazilian experts about some of the major problems in the social sectors.

A. Social Security

79. Somewhat less than half of all workers in Brazil contribute to and are covered by social security -- less than 10 percent of farm workers but 60 to 80 percent of manufacturing and service workers. Both employees and employers contribute to the social security fund. Contributions and benefits to be provided by social security are specified in Brazilian legislation, and the federal government accepts responsibility to pay any unfunded liabilities. There is no plan to accumulate assets to pay future obligations.

80. Between 1979 and 1983, the percentage of manufacturing workers contributing to the system fell from 79 percent to 62 percent. This change was in part associated with the recession, but in the 1984 and 1985 upturn, the participation rate recovered only half of the lost worker-participant share. The number of noncontributing workers in all sectors rose steadily from 22.5 million in 1979 to 28.1 million in 1985 (Table 6). At an annual rate of 3.8 percent, their numbers grew at double the rate of the labor force as a whole. Many workers and employers may be avoiding employment that requires them to contribute now for benefits far in the future.

Table 6: SHARE OF MANUFACTURING WORKERS CONTRIBUTING TO SOCIAL SECURITY; MILLIONS OF WORKERS NOT CONTRIBUTING (ALL SECTORS); TOTAL CONTRIBUTIONS RECEIVED

<table>
<thead>
<tr>
<th>Year</th>
<th>Contributing in Manufacturing (percent)</th>
<th>Not Contributing (All Sectors)</th>
<th>Total (millions of workers)</th>
<th>Contributions Received (1984 prices)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1979</td>
<td>79</td>
<td>22.5</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
<tr>
<td>1980</td>
<td>n.a.</td>
<td>n.a.</td>
<td>19.5</td>
<td>19.5</td>
</tr>
<tr>
<td>1981</td>
<td>73</td>
<td>22.8</td>
<td>19.1</td>
<td>19.1</td>
</tr>
<tr>
<td>1982</td>
<td>n.a.</td>
<td>n.a.</td>
<td>24.1</td>
<td>24.1</td>
</tr>
<tr>
<td>1983</td>
<td>62</td>
<td>25.4</td>
<td>19.1</td>
<td>19.1</td>
</tr>
<tr>
<td>1984</td>
<td>71</td>
<td>26.7</td>
<td>17.1</td>
<td>17.1</td>
</tr>
<tr>
<td>1985</td>
<td>71</td>
<td>28.1</td>
<td>19.1</td>
<td>19.1</td>
</tr>
</tbody>
</table>

81. As a result, aggregate contributions to social security were about the same in 1985 as they had been in 1980 in real terms. This stability in the real value of contributions contrasts markedly with the 1970s, when contributions grew by 13 percent a year from 1971 through 1981 (MPAS, DATAPREV 1986, 1(2), 8).

82. The system achieved net savings in most years of the 1970s (Table 7). Thanks to indexing, social security revenues readily kept up with inflation; however, increases in benefits contributed to small system deficits in 1976 and 1977. In 1981, the first large deficit appeared; it amounted to nearly 10 percent of system revenues despite a doubling in that year of the federal government’s contributory share of system revenues.\footnote{In 1987, a committee of the Constitutional Convention voted for substantial benefit increases. That vote may in part have been inspired by the surplus of receipts over expenditures experienced in 1986 (see Table 7), despite the fact that this surplus had already turned into a deficit by 1987 and a projected deficit for 1988.}

<table>
<thead>
<tr>
<th>Year</th>
<th>Receipts</th>
<th>Expenditures</th>
<th>Balance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1971</td>
<td>12</td>
<td>12</td>
<td>+ 0.5</td>
</tr>
<tr>
<td>1972</td>
<td>18</td>
<td>17</td>
<td>+ 1.1</td>
</tr>
<tr>
<td>1973</td>
<td>26</td>
<td>23</td>
<td>+ 2.4</td>
</tr>
<tr>
<td>1974</td>
<td>37</td>
<td>34</td>
<td>+ 3.1</td>
</tr>
<tr>
<td>1975</td>
<td>56</td>
<td>53</td>
<td>+ 3.1</td>
</tr>
<tr>
<td>1976</td>
<td>90</td>
<td>91</td>
<td>- 1.2</td>
</tr>
<tr>
<td>1977</td>
<td>139</td>
<td>138</td>
<td>- 1.1</td>
</tr>
<tr>
<td>1978</td>
<td>214</td>
<td>213</td>
<td>+ 1.0</td>
</tr>
<tr>
<td>1979</td>
<td>331</td>
<td>333</td>
<td>- 1.2</td>
</tr>
<tr>
<td>1980</td>
<td>636</td>
<td>683</td>
<td>+ 46.8</td>
</tr>
<tr>
<td>1981</td>
<td>1,369</td>
<td>1,488</td>
<td>- 118.9</td>
</tr>
<tr>
<td>1982</td>
<td>3,363</td>
<td>3,102</td>
<td>+ 260.4</td>
</tr>
<tr>
<td>1983</td>
<td>6,637</td>
<td>6,753</td>
<td>- 116.4</td>
</tr>
<tr>
<td>1984</td>
<td>19,873</td>
<td>19,936</td>
<td>- 62.0</td>
</tr>
<tr>
<td>1985</td>
<td>70,365</td>
<td>67,810</td>
<td>+2,555.1</td>
</tr>
<tr>
<td>1986</td>
<td>197,700</td>
<td>184,812</td>
<td>+12,888</td>
</tr>
</tbody>
</table>

Source: de Oliveira, Henriquez, Beltrao (1986, 40); based on balance sheets of FPAS, for 1971-85; MPAS DATAPREV 1987, 2, 2, 49, 51, monthly averages multiplied by 12, for 1986.

83. Assuming the current level of benefits is maintained, more serious deficits are likely in the future as the current high ratio of workers to
retirees declines. If a deficit looms, the options are to cut or delay payment of benefits, raise contributions, or fund the gap from general revenues. Since the system began operation in 1923, there has been no instance of a cut in benefits. The social contribution of workers and employers has been raised several times and could be raised further. Were there successful political resistance to new increases, general revenues would be needed to finance the system. In recent years, Brazil’s rapid inflation offered administrators opportunities to cut the real value of benefits by delaying adjustments or issuance of payments. This solution has perverse effects, however, as it undermines the credibility of the system, thereby encouraging evasion and reducing voluntary compliance, an essential condition for keeping administrative costs low.

84. There are two major problems with the current system: it is inequitable; and it is probably inefficient, in the sense of discouraging productive work and achieving only at high cost the goal of income insurance in old age.

85. The Equity Problem. The current system is inequitable for several reasons. First, those who receive the benefits of the program may not actually pay the costs of it. As is always possible, the person or organization legally bound to pay a tax may differ from the person whose net of tax income is lowered because of the tax. The actual burden of the social contributions that finance the social security system depends on the elasticities of supply and demand for factors of production (labor and capital) and goods produced. In traded-goods (or export-oriented) sectors, where product prices are set by world markets, any tax on wages is likely to be borne by workers (in the form of lower wages), as it cannot be passed forward into final product prices. In non-traded sectors, if domestic demand is inelastic, (i.e., consumption is little affected by product price) the wage tax is in part passed along to Brazilian consumers.

86. That such a shift of the burden occurs in other Latin American countries is discussed in a recent IMF review of social security in the region: "Institutional rigidities in wage-setting and oligopolistic market structures in the organized sector could result in the tax’s simply being passed on to consumers....A study of social security and other government programs in Chile found that prices were determined by average cost plus a mark-up, suggesting that costs, including payroll taxes, would simply be passed on" (Mackenzie 1987, 28). Similar shifts probably occur in Brazil as well.

87. Inequity also arises among direct contributors to the system. Table 8 shows, for example, that in 1985, the largest share of benefits, 28 percent, was paid to early retirees, who comprised just 9.3 percent of all recipients (Table 8). Box 3.1 provides specific examples of the differences in benefits that arise between early retirees and others.
Box 3.1: LARGE EARLY RETIREMENT BENEFITS

A sense of how benefits are financed and distributed may emerge from some simple examples. A contributor joining the system at age 15, earning 1 minimum salary (SM) throughout his working life, retiring at age 65, and collecting benefits until his death at age 75, would pay in 10 SM and receive 2.6 SM in health benefits and 9.5 SM in retirement benefits, yielding a loss for the system of 2 SM. If the social rate of discount is equal to the rate of growth of per capita income (over 3 percent for Brazil, 1945-80), then the prior payment of contributions yields a viable system with near term contributions able to compensate for the somewhat larger future benefits in retirement.

But many workers retire prior to normal retirement age. Two out of 5 workers retire early on the basis of fulfilling the requirement of a minimum number of years of service, or because of disability. An early retirement scenario might unfold as follows. Work begins at age 20 for 3 SM and continues to age 50, followed by death at age 75. The worker pays 19 SM in contributions during his 30 working years, receives 9 SM of health benefits and 60 SM of retirement benefits. The system loses 50 SM in this case, an amount too large for any normal discount rate to cover. The social security wage tax falls far short of covering the costs of benefits to early retirees (de Azevedo and de Oliveira 1984, 90-92).

Few countries offer early retirement based on years of service: Egypt, Ecuador, Iraq, Italy, Kuwait, and Lebanon are examples (de Azevedo and de Oliveira 1984, 84). Most of these, however, have more stringent requirements for benefit entitlement than does the Brazilian program.
88. As the table also indicates, inequity also arises between urban and rural workers. Eighteen benefits, including the early retirement benefit, are available to urban beneficiaries, and just 6 to rural beneficiaries (not shown). Over the 6-year period 1979 to 1985, early and special retirement pensioners accounted for 36 percent of new urban retirees; these persons received 60 percent of urban benefits paid to that cohort of retirees (de Oliveira 1987, p. 18). In contrast, persons who retired at normal age in the urban program claimed just 7 percent of all benefits distributed in 1985. The average value of the benefits received by early retirees was about US$180 monthly, triple the average benefit. Box 3.2 reports on various possible combinations of reduced early retirement benefits and increased pensions for uninsured rural workers that could be financed over the next decade without raising social contributions.

### Table 8: PERCENTAGE DISTRIBUTION OF MAJOR SOCIAL SECURITY BENEFITS, URBAN AND RURAL, BY VALUE, 1985

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Percentage of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban benefits</td>
<td></td>
</tr>
<tr>
<td>Early retirement</td>
<td>26.2</td>
</tr>
<tr>
<td>Retirement for disability</td>
<td>13.7</td>
</tr>
<tr>
<td>Survivors’ benefits</td>
<td>12.9</td>
</tr>
<tr>
<td>Retirement, normal age</td>
<td>7.0</td>
</tr>
<tr>
<td>Other urban benefits</td>
<td>22.1</td>
</tr>
<tr>
<td>Rural benefits</td>
<td></td>
</tr>
<tr>
<td>Retirement, normal age</td>
<td>8.4</td>
</tr>
<tr>
<td>Survivors’ benefits</td>
<td>3.5</td>
</tr>
<tr>
<td>Other rural benefits</td>
<td>4.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>


89. The Efficiency Problem. Brazil’s social security system is a high-cost approach to risk coverage. The purpose of a social security system is to reduce risk to individuals by sharing risk among many contributors. Early retirement pensions, after 30 years of service, range from 80 to 95 percent of income. Normal retirement pensions range from 70 to 95 percent of average income over the last three working years. Disability pensions range up to 100 percent of income. In contrast, most industrial market economies limit the rate of replacement of income to between 40 and 60 percent of earnings, on the grounds that costs of living in retirement are significantly lower than during the working years, and to encourage private savings for retirement (thus increasing the overall savings rate).
Box 3.2: RURAL WORKERS VS. EARLY RETIREES

Early retirement benefit costs are projected to rise from 4.9 percent of the salary base in 1985 to between 6 and 8 percent of the salary base in the year 2000, when early retirees will receive about a third of all pension benefits. In a simulation study, 3 possible changes in early retirement benefits were examined: limiting early retirement to persons 55 years of age or older; eliminating altogether early retirement based on time of service; and reducing gradually the entitlements of early retirees. If introduced in 1987, the second option would produce large savings by the year 2000, reducing total benefits from 21 to 15 percent of the wage base. (The other options for reducing early retirement benefits would have correspondingly less effect on system costs in that they provide for only partial or gradual reduction of the benefit.) This savings of 6 percentage points of the wage base could be used to pay the cost of extending minimum benefits to all rural workers.

Currently, farm worker benefits are capped at 75 percent of the minimum wage. Urban workers receive benefits on a sliding, and much higher, scale. The principle of equity would be served by making rural and urban benefits comparable. In 1985 only one in 15 farm workers contributed to social security (Medici and Barros Silva 1986, 62).

Brazil's rural population is projected to decline from 38 million in 1980 to 35 million in the year 2000. The rural workforce will remain between 14 million and 15 million; the number of rural beneficiaries could rise from 2.5 million in 1980 to 6 million in the year 2000 (de Oliveira, Henriques, and Iwakami Beltrao 1986). Alternative growth scenarios suggest that the cost of benefits, even for this larger group, would not exceed 3.4 percent of the urban wage bill subject to social security taxes. Compare this 3.4 percent of the wage bill to the potential 6 percent of the wage bill that could be saved from cuts in early retirement benefits. Doubling rural benefits, by extending minimum coverage to those not now eligible, could easily be financed from the saving in early retirement benefits.

The costs of disability retirement are projected to rise from 2.9 percent of the salary base in 1985 to between 3.9 percent and 6.2 percent of the salary base in the year 2000 (de Oliveira, Henriques, and Iwakami Beltrao 1986). Eligibility for this important benefit needs to be carefully monitored to avoid fraudulent applications.
The Brazilian benefit scheme risks what economists refer to as "moral hazard," the threat that an agreement or contract will itself induce people to behave differently than if the contract did not exist. If retirement benefits are generous, some people will retire even if they would continue to work in the absence of the benefit. The issue of moral hazard is particularly germane to the early retirement benefit. Suppose a person begins working at age 15 and continues with the same company for 30 years. At age 45 he is eligible for an 80 percent pension; at age 50 he is eligible for the maximum 95 percent pension. He stops working or he retires with pension benefits and takes another job. It is difficult to imagine that this scenario is consistent with overall development objectives or social policy.

Another large share of benefits, 13.7 percent of the total, pays for disability pensions (Table 8). The majority of these payments are legitimately received by persons incapacitated and unable to work, but disability benefits also may involve an element of moral hazard when there is an incentive to describe oneself as disabled.  

B. Education

Public education spending is the second largest component of Brazil's social budget; total spending by all levels of government was an estimated US$11 billion in 1986 (Table 3, Chapter I), 23 percent of total social spending in that year. State and local governments, which provide virtually all (public) primary and secondary education, spend almost twice as much on education as the federal government. The bulk of their spending is financed by transfers from the federal government of the ICM (value-added tax), the education salary tax, and other federally collected revenues. The federal government finances and administers a public university system in cooperation with the states. In addition, training for primary school graduates in general and vocational skills is provided through a number of quasi-public agencies (SENAI, SENAC, SENAR and FUNDACENTRO), in cooperation with the private and state enterprise sectors financed by a separate payroll tax.

In 1986, public spending on education in Brazil by all levels of government was an estimated 4.0 percent of GDP, compared with an unweighted average of 3.8 percent of GDP for 20 Latin American countries; 8 Latin American countries spend a larger share of GDP on education than does Brazil, however. As noted in Chapter I, Brazil has lower indicators of educational attainment than other middle-income countries of Latin America, implying that, if anything, higher spending on education is warranted, since social returns to such investment are almost surely still higher than in other countries. Key competitors in East Asia, Korea, and Singapore spend considerably more on education than Brazil to support their much higher

---

18/ A recent social security commission report noted the large number of such benefits and recommended more careful scrutiny of applications, including more thorough medical certification of disability (MPAS 1986).
levels of enrollment, especially at the secondary level. None of the industrial economies spends less than 4.5 percent of GDP on public education (World Bank 1986b, Appendix Table 2). These comparisons place Brazil somewhat above the spending levels of its less advanced neighbors but below the level of spending which it may need to maintain a leadership role among middle-income countries.

94. **Targeting and Equity.** As noted in Chapter II, the poor receive relatively little benefit from Brazil's pattern of spending across levels of education. Table 9, which consolidates education spending estimates for all levels of government, shows that public spending per student in university and higher education is almost 18 times higher than spending at the primary and secondary levels. It is children of relatively high-income families who benefit most from the huge subsidy per student in higher education. Children in households that earn less than 1 minimum salary (about 13 percent of all children) represent only 1.0 percent of higher education enrollments (and only 4 percent of public secondary education enrollment). The 11 percent of children at the other extreme of the income distribution, in families earning more than 10 times the minimum salary, account for more than 48 percent of public higher education enrollment and 16 percent of public secondary education enrollment (World Bank, 1986a, p. 11).

<table>
<thead>
<tr>
<th>Level of Instruction</th>
<th>Aggregate Spending (US$ millions)</th>
<th>Amount per Beneficiary (US$ per student)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary</td>
<td>3,480 (68%)</td>
<td>149</td>
</tr>
<tr>
<td>Secondary</td>
<td>466 (9%)</td>
<td>144</td>
</tr>
<tr>
<td>University, higher</td>
<td>1,203 (23%)</td>
<td>2,586</td>
</tr>
<tr>
<td>Total spending</td>
<td>5,149</td>
<td>...</td>
</tr>
</tbody>
</table>

Source: Mission estimates.

95. The strikingly small amount spent at the secondary level helps to perpetuate the near-monopoly of higher-income families on the higher-education subsidy. Public spending on secondary education is so small that 38 percent of all students attend private schools, including almost 30 percent of all students from households with income below 1 minimum salary and more than 60 percent of students from households with income above 10 minimum salaries (World Bank, 1986, p. 11.) The quality of the private schools these children attend, however, varies radically.

96. There are other inequities in the system. Spending per pupil is lower in municipal than in state schools, lower in rural than in urban schools, and lower in schools in the Northeast than in those elsewhere in Brazil. The greatest differences in spending at the primary level are within
the Northeast, where spending per pupil on primary education Northeast is 3 times higher in state-run schools than in schools run by municipios (World Bank, 1986a, p. 28).

97. Efficiency Issues. Direct measures of learning in Brazilian education are rare, but recent tests in rural areas of the Northeast indicate most children cannot yet read or do simple arithmetic after 2 years in school (Armitage, et. al, 1986). The major available indicators of the ineffectiveness of the Brazilian school system are strikingly high national repetition and drop-out rates. For example, it takes on average 2.2 years to pass first grade in Brazil and 3.7 years in the rural Northeast. After 8 years of schooling, the average Brazilian child has only completed grade 5 (Fletcher and Castro, 1985). No other Latin American country except Suriname has higher rates of repetition. A recent UNESCO study indicated that only 36 percent of children who begin primary school in Brazil ever complete the standard 8 years, and only 14 percent, nationally, complete all 8 grades in 8 consecutive years. In Piauí, only 4 percent of children complete eighth grade in 8 years. Only 2 countries, El Salvador and Nicaragua, have poorer survival rates to eighth grade than Brazil (World Bank 1986b Appendix Table 11). One major reason for the ineffectiveness of Brazilian schools is the short school day. Even where class size is relatively small (e.g., 25-35 students), triple or quadruple shifts with fewer than 3 hours of instruction a day are standard in metropolitan areas, with many teachers working the 2 or more shifts at different schools. Class size in many areas is relatively small because of poor attendance; high enrollment on the first day sets official class size, but is a poor indicator for the year as a whole.

98. Many of these problems reflect poor management of education resources rather than a lack of financial resources. For example, Brazilian school systems generally spend a high share of their budgets on teacher salaries, but some of these trained teachers perform only administrative functions, many of which could be performed by less trained and lower paid personnel. Even worse, in the Northeast, the existence of large numbers of "ghost" teachers (not actually employed in any function in the school system) is a serious management -- and political -- issue. When one Northeast state recently tried to verify the 14,000 teachers on the state education payroll, it found that 6,000 individuals regularly collecting salaries could not be located. A second, and related problem, is poor teacher quality. Less than half of the teachers in municipal schools in the Northeast have themselves completed primary school. Although the problem of attracting and retaining better qualified teachers (particularly in rural areas) is a complicated one, there is no doubt that being able to pay more would help. However, given current budgetary constraints, it is likely to be impossible for most school systems in Brazil to increase teachers' salaries unless the types of management problems raised above are resolved.

99. The availability and quality of other important education inputs, such as books and teaching materials, has improved since a 1985 school survey demonstrated the need in most primary schools (Castro and Fletcher, 1985). The National Textbook program (Programa Nacional do Livro Didatico) distributed 45 million books to 24 million students in 1986. The School
Supply program (Programa de Modulo Escolar) provided notebooks, pencils, and related materials to about 5.5 million primary school students in 1986. These programs have assured the nationwide delivery of adequate quantities of materials over the past several years, but some inefficiencies have arisen due to the highly centralized organization. Textbooks are often not delivered until after the start of the school year, and teachers have complained about lack of advance notice about which textbooks will be supplied, thereby making it difficult for them to prepare courses. Centralized federal provision is probably warranted for the poor and rural regions of the country, but economically diversified states such as Sao Paulo and Parana claim that their textbook distribution plans are more efficient.

100. Recent Policy Changes. Education has been given somewhat higher priority in government spending in recent years, as reflected by the passage in 1983 of the Calmon Amendment.19/ Primary education has been designated as having the highest priority, as stated in Educacao Para Todos (Ministry of Education and Culture 1985), but higher education has greater lobbying power so that much of the recent increase in educational spending has benefited universities and not primary or secondary education. Higher education’s share of spending by the federal Ministry of Education increased from 55 percent in 1985 to 58 percent in 1986.

101. Recently introduced policy changes include decentralization, on an experimental basis, of the school lunch program to some municipalities; and transfer of the responsibility for regulating private university tuition charges from the federal to state education councils. Other important policy changes are planned and, funds permitting, will be implemented: expansion of the student loan program; further decentralization of the school lunch program; more evaluation of undergraduate instruction in the federal universities; reestablishment of federal subsidies to selected private higher education institutions; and more efficient utilization of federal university buildings by offering night classes.

C. Housing and Urban Services

102. The third largest component of social spending by all levels of government combined is housing and urban development. With water and sanitation services added, in 1986 this sector constituted about a fifth of the social budget and nearly 4 percent of GDP (Chapter 1, Table 3).

103. Population growth of more than 2 percent a year and continuing migration from countryside to city have resulted in a population growth rate of 4.2 percent in urban areas in the 1980s, and are expected to result in the formation of 10 million new urban households by the end of the decade: about 4 million between 1980 and 1984 and 6.3 million more between 1984 and 1990. Two

19/ The Calmon Amendment of 1983 stipulates that federal, state, and municipal governments spend specified minimum percentages of their budgets on education. Perhaps as a result of that amendment, educational spending as a proportion of GNP increased in 1985.
examples of urban policy in response to this growth, water supply and housing finance, demonstrate that Brazilian government policies can function both well and badly.

104. **Water Supply and Sanitation: A Partial Success.** Except in the rural Northeast, improvements in water supply since 1970 have been impressive. Despite economic recession, progress continued in the 1980s; more than a million households a year secured general water network connections between 1980 and 1985, and by 1985, almost 70 percent of all households, and more than 82 percent of urban households, had access to potable water supply (Table 10).

<table>
<thead>
<tr>
<th>Table 10: HOUSEHOLDS WITH PIPED WATER, 1970-85 (percentages)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>1970</td>
</tr>
<tr>
<td>1980</td>
</tr>
<tr>
<td>1982</td>
</tr>
<tr>
<td>1983</td>
</tr>
<tr>
<td>1984</td>
</tr>
<tr>
<td>1985</td>
</tr>
</tbody>
</table>

Source: Vol. II, Part Two, Table 55.

105. Potable water is not free to users. The national plan for water and sanitation services (PLANASA) began with the presumption that households that benefit from water connections should pay at least the marginal costs of providing service. Since 1978, federal law has also provided for a sliding scale of user charges that permits higher fees for households that consume more water and cross subsidies of the poor by the rich. Cost recovery is an accepted feature in urban water supply and has been critical to the program’s ability to finance continuing expansion. The persistent erosion of real tariffs in recent years, however, constitutes a threat to the viability of urban water supply systems throughout Brazil.

106. On the other hand, coverage of sewerage or other sanitation facilities is much less complete (see Vol. II, Part Two, Table 57). Investment costs per household are as much as 50 percent higher than the cost of providing potable water. About 41 percent of all urban households, and 73 percent of households in the urban Northeast, were not connected to a septic tank or general sewerage network in 1984. One estimate suggests that proposed sanitation investments in the 1986-89 period will serve only 15 percent of the 6 million households currently without adequate systems. Most low-income households will not get sanitation services until the mid-1990s or later (Campbell 1986, 8). The PROSANEAR program aimed at poor households is projected to receive little more than 10 percent of sanitation investment funds.
in the near term. Alternative standards and technologies are, however, being actively explored under urban projects in Bahia and Pernambuco.

107. In contrast to the progress in urban areas, the development of sustainable, replicable water supply and sanitation systems in rural areas has been slow. A viable institutional and financial framework has yet to be evolved in most areas.

108. Public Housing: A Failure.20/ Few governments can resist pressures to intervene in housing markets. The needs of the poor seem so obvious, and the solutions so clear, that governments, by one means or another, are drawn into building, financing, and subsidizing public housing. The Brazilian government is no exception; it collects an 8-percent tax on the wage bill and earmarks those revenues for payment into FGTS, the Time-on-Job Guarantee Fund. That fund in turn finances certain worker benefits, such as unemployment assistance and housing finance, and from residual funds can finance low-income housing and water and sanitation services. Beginning in the 1970s, these funds were made available to the National Housing Bank (BNH), which in turn allocated resources to housing, water, and sanitation projects.

109. The system functioned reasonably well until it was undermined, in the early 1980s, by recession and inflation. The system now faces a deficit of billions of cruzados. As explained in Box 3.3, because nominal mortgage payments fell well behind inflation, most borrowers today pay only a fraction of what would be necessary to amortize the principal of their loan, let alone cover their interest payments. The implicit subsidy has been much greater for middle and higher-income groups.

110. Lessons: Water Supply and Housing. What lessons does this experience suggest? The provision of water supply in urban areas is a classic public good. Individual households cannot, on their own, achieve the kind of low-cost solution that joint action can achieve. This fact, coupled with the effective demand for water services at prices that assured adequate cost recovery and allowed differential prices to rich and poor, underlay the accomplishment of extending potable water coverage in the face of unprecedented city growth. This potential was harnessed by carefully developing an appropriate institutional framework (PLANASA/autonomous state water companies) and viable pricing policies.

20/ An in-depth review of the failure of public housing is to form part of separate World Bank studies on a) Housing Finance and the Financial Sector, and b) Housing Policy, Institutions and Construction, which are currently under preparation. This summary highlights the subsidy issue.
Salary policies between 1979 and 1984 cut incomes for salaried workers; the higher the salary, the greater the drop in real purchasing power. A worker earning 1 minimum salary in May 1979 lost 2.6 percent of real purchasing power by the time of his salary adjustment of May 1983; one earning 40 minimum salaries lost 58.6 percent. Most mortgage holders lost half or more of their real income over this period. Delinquencies began to rise, and housing prices plummeted, leaving many borrowers with unamortized principals greater than the market price of their units. Loan repayments contracted, so BNH agreed to lengthen the maturity of its loans.

In 1984, the loan payments of the borrowers opting for the most generous concessions were raised by 144 percent, compared with a monetary correction of 191 percent. The resulting unamortized balance remaining at the end of the term of the loan was to become the responsibility not of the borrower, but of the Fund for Compensation of Salary Variations (FCVS), a federal financial institution. This Fund, which had been created with the contributions of borrowers, would now require massive infusions from the federal budget. In 1985, loan payments were adjusted by 112 percent, far less than the monetary correction of 246 percent, for those opting for semiannual monetary correction of their loan payments. In 1986, housing finance policies adopted as part of the first Cruzado Plan again raised nominal mortgage payments less than the monetary correction. With inflation rising in 1987 (to a peak of 30 percent a month in June), the situation worsened further. Under Plano Cruzado II, the unpaid balance of mortgages receives full monetary correction, while the monthly payments rise only 60 days after each "trip" of the salary trigger for those with salary equivalence; thus the size of the potential deficit continues to increase.

Today, most borrowers pay only a fraction of what would be necessary to amortize the principal of their loan or even to cover the interest payments. The FCVS will have to cover the unamortized residuals, a paper loss in the value of the financial assets of the savings system. It will appear on the books of these institutions only at the end of the terms of the mortgages in the portfolio; its total size is estimated by various experts to range from US$7 billion to US$25 billion. This subsidy for borrowers will be paid for by Brazilian taxpayers.

The table below shows that the benefits of this subsidy have been distributed in a way that favors higher-income households. More than half the amount needed to grant the concessions of 1985 went to people with large loans and high incomes:

**DISTRIBUTION OF SUBSIDIES TO BORROWERS (OF THE SHF) BY VALUE OF LOAN, JUNE 1985, (US$)**

<table>
<thead>
<tr>
<th>Income Level</th>
<th>Value of subsidy (US$ millions)</th>
<th># of Contracts ('000)</th>
<th>Subsidy per contract</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 5 Min. Salaries</td>
<td>3,323</td>
<td>1,984</td>
<td>1,675</td>
</tr>
<tr>
<td>&gt; 5 Min. Salaries</td>
<td>3,677</td>
<td>452</td>
<td>8,160</td>
</tr>
<tr>
<td>Total</td>
<td>7,000</td>
<td>2,436</td>
<td>2,874</td>
</tr>
</tbody>
</table>

Note: The subsidy for each loan value group was estimated by calculating the difference between the loan payments with adjustment at 246 percent and 112 percent. This difference was then multiplied by the number of contracts in each loan value category.

Source: Volume II, Part Two, Table 62

Borrowers with income above 5 minimum salaries received an average subsidy worth US$8,000 over the prospective life of their loans. Borrowers with income below 5 minimum salaries received an average subsidy worth $1675.
The role of government in housing finance and construction is far less compelling. Housing is not a public good. The experience with public intervention in housing markets has been lamentable in many countries (United Nations 1979; Mayo, Malpezzi and Gross 1986). Brazil’s experience with rent controls distorted housing markets in Rio de Janeiro for many decades; abandonment of controls in the 1960s brought some benefits for urban housing (United Nations 1979, 45-48). In the decade after rent controls were loosened in several stages, rents declined by about 25 percent. Today, about 1 in 4 urban families lives in rental accommodations (FIBGE 1985), so that policy on rent control affects more people more directly than does a subsidy to many fewer beneficiaries of urban housing construction.

Because of the role of housing in national savings mobilization, further study is required and fundamental policy reform is likely to be necessary. Instead of subsidizing housing, or attempting to control rents, local governments could tax property and regularize the property holdings of the millions of urban land occupants with insecure tenure, so that the process of upgrading can move forward. Emphasis on public housing diverts attention from the real and complex issue of unclear property rights that plagues Brazilian cities. With a million new households being added to Brazilian cities each year, the construction of 20,000 or even 50,000 subsidized dwellings can have little direct impact on the supply of housing.

Since 1982, federal price policy has kept rent increases below inflation (Vetter 1987). For example, the application of the government rent controls allowed a total rent increase of 3,648 percent between December 1982 and March 1987, versus a total inflation of 7,659 percent. Rents subject to government control in 1987 are less than half of what they would be if they had been fully adjusted to keep pace with inflation. In this same period, there has been little new investment in rental housing, and landlords have sought to sell off their rent-controlled units. The resulting reduction in the supply of rental housing greatly increased rents for the “free” segment of the market. For example, the average price of a two-bedroom apartment in Sao Paulo in cruzados of constant value rose by 143 percent between January 1986 and January 1987.

D. Health Services

The fourth largest component of public social spending is health care. In 1986, health care spending comprised about 13 percent of all social spending by government at all levels. Private spending on health is substantial — possibly as great as public spending — so that total public and private spending probably amounts to about 4 percent of
Brazil, though spending a significant share of GDP on health, still spends a small amount per capita (about $44) when compared to the developed countries, or even to Spain, Venezuela, and Portugal. North Americans spend about 15 times as much as Brazilians, the British 5 times as much. On the other hand, Brazil spends more than enough to provide a basic package of preventive and simple curative services that would meet the medical needs of 90 percent of the population—a package costing between $5 and $15 per capita, according to the World Health Organization (see World Bank, 1987).

Higher incomes, and larger shares of GNP devoted to health care, do not necessarily buy better health conditions. Comparisons across countries, both developed and developing, show that there is little correlation between mortality indicators and health or medical expenditures (Maxwell 1981, 40). Good health and low mortality depend on the way health expenditures, especially in the public sector, are spent, and on many factors other than medical expenditures, including exposure to communicable disease and income and education levels.

Organization of Health Care. Six agencies of 3 ministries of the Brazilian government supervise the delivery of health services and related activities in the sector:

Table 11: AGENCIES IN THE HEALTH SECTOR II: BRAZIL

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Ministry</th>
<th>Target Group, Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>INAMPS</td>
<td>Social Security</td>
<td>Provision and financing of medical services (largely individual curative)</td>
</tr>
<tr>
<td>SUCAM</td>
<td>Health</td>
<td>Communicable disease control</td>
</tr>
<tr>
<td>CEME</td>
<td>Health</td>
<td>Drugs, manufacturing, distribution</td>
</tr>
<tr>
<td>FSESP</td>
<td>Health</td>
<td>Basic health services, Northeast Brazil</td>
</tr>
<tr>
<td>FIOCRUZ</td>
<td>Health</td>
<td>Health services research, production of vaccines, etc.</td>
</tr>
<tr>
<td>INAN</td>
<td>Health</td>
<td>Nutrition and food supplementation</td>
</tr>
<tr>
<td>MEC</td>
<td>Education</td>
<td>University hospital services, training of physicians and other health professionals</td>
</tr>
</tbody>
</table>

Brazilian experts differ in their estimates of private health care spending. Results of a 1981 survey (PNAD81 analyzed in Vieira 1984) suggest that private spending is about equal to public spending for health care, so that the bill for health care, both publicly and privately financed and provided, will reach US$12 billion in 1987, about 4.3 percent of GDP. Other analysts estimate a lower figure for private health care resulting in an estimate of 3.9 percent of GDP (Barros Silva and Medici 1987). Brazil's health share (the component of total national resources devoted to health) approaches the health share of the UK, which in recent years has been about 5.2 percent of GDP. The health share is still well below that of the USA (11 percent) and most other industrial countries.
117. INAMPS, that branch of the social security fund charged with financing health care services for affiliates of the social security system, is the largest public provider of health services. Until recently, most of its resources were used to pay private hospitals and physicians who provide services on a fee for service basis to INAMPS affiliates and their dependents. INAMPS also maintains a network of its own hospitals and health care posts.

118. The Ministry of Health supervises the work of SUCAM (Superintendencia de Campanhas de Saude Publica, or Superintendency for Public Health Campaigns), which specializes in communicable disease control; CEME, which produces, purchases, and distributes essential drugs; FSESP, which manages some basic health services in Northeast Brazil; FIOCRUZ, which conducts health research and manufactures biological products and lab reagents; and some lesser units which support overall ministry objectives.

119. The Ministry of Education oversees the activities of state-operated medical schools and the teaching and research hospitals associated with the medical schools. The larger states also contribute to the budgets of these institutions with local tax revenues. These institutions make substantial and continuous investments in hospitals and sophisticated medical equipment that support teaching and research activities of the medical schools.

120. State and local governments also deliver health services, partly financed with transfers from the Ministry of Health, INAMPS other federal agencies.

121. The Unified and Decentralized Health System (SUDS). In 1987, the government announced a new approach to the organization and financing of health care services. The SUDS built on several other program efforts, beginning in the 1980s (including the Program of Integrated Actions (AIS) to unify the functions of INAMPS and the Ministry of Health at the (decentralized) state and municipal level. Under the SUDS, INAMPS has recently signed agreements with all states which, if implemented, will transfer ownership and management of INAMPS facilities and financial resources to the states, as well as management of contracts with private profit-making and philanthropic hospitals.

---

22/ INAMPS payments to private providers, which were 58 percent of its total spending in 1984, have been declining in recent years; the share was 41 percent in 1986.

23/ Under the AIS and now the SUDS, interinstitutional health commissions at the state and municipal levels coordinate delivery of care, using an agreed common budget (the POI -- or integrated budget).

24/ The agreements specify how the money is to be spent, and INAMPS will continue to have the right to inspect and evaluate state programs.
122. Through unification of the formerly divided health system (divided between the largely hospital sector financed by INAMPS and the largely "basic" or preventive health care system administered by the Ministry of Health and state health secretariats), the SUDS allows for a major reorganization of the health care system in at least three ways. First, it permits development of a referral system in which clients can (and should) enter the system at the nearest health post or health clinic and have most of their medical problems resolved at that level, thus avoiding the use of currently overloaded hospitals, where costs are high. Second, it should encourage a gradual reallocation of now-unified resources in favor of more cost-effective preventive services and simple curative services at the nonhospital level. Third, with reorganization, the health care system should become open to all persons, irrespective of whether they are affiliates of the social security system. In addition, because the unification of the systems is occurring at the decentralized state level (and at the municipal level in cases such as Sao Paulo where the state is now making agreements with municipalities), the health system as a whole should become more responsive to local needs.

123. Targeting and the Composition of Spending. Though implementation of the SUDS holds out hope for eventual improvement in both the effectiveness and equity of public spending on health, at the moment public spending still heavily favors the hospital system, and still benefits largely the middle-class and rich in urban areas. The problem is illustrated by a comparison of spending by government on curative vs. preventive health care (an oversimplified but still useful comparison) between 1949 and 1986, shown in Table 12. In the beginning of the period, 87 percent of public spending on health was for collective, largely preventive programs administered by the Ministry of Health and the state health secretariats. In the subsequent decades, however, the INAMPS system, an individual-oriented, largely curative health subsystem financed through social contributions, grew rapidly; by 1982 it was absorbing 85 percent of all government spending on health. The earlier percentages were thus completely reversed.

<table>
<thead>
<tr>
<th>Year</th>
<th>Curative</th>
<th>Preventive</th>
</tr>
</thead>
<tbody>
<tr>
<td>1949</td>
<td>13</td>
<td>87</td>
</tr>
<tr>
<td>1965</td>
<td>36</td>
<td>64</td>
</tr>
<tr>
<td>1969</td>
<td>59</td>
<td>41</td>
</tr>
<tr>
<td>1975</td>
<td>70</td>
<td>30</td>
</tr>
<tr>
<td>1982</td>
<td>85</td>
<td>15</td>
</tr>
<tr>
<td>1986</td>
<td>78</td>
<td>22</td>
</tr>
</tbody>
</table>

Source: McGreevey, Baptista, Gomes Pinto, Vianna, Piola (1984), 14, for 1949 through 1982. World Bank estimates for 1986, based upon Annex Tables 14, 18 and 19. Preventive care spending is estimated as the sum of the total Ministry of Health budget plus INAMPS' expenditure on "Reorientation and Rationalization of Medical Assistance" in Annex Table 19.
124. Table 12 also illustrates the potential for change, however, due to the AIS and now the SUDS. Over the past several years there has been a welcome shift towards greater emphasis on basic, or preventive, health care.

125. The bulk of public spending that goes to largely curative hospital care is itself distributed unequally among regions, families, and persons. Northeasterners received only half as many medical consultations per capita as Southeasterners in 1985, and INAMPS spent twice as much per capita in Southeast as in Northeast Brazil in 1986 (Table 13). Table 13 also shows that high-income groups are the principal beneficiaries of tax deductions for health care.

Table 13: PUBLIC HEALTH CARE BENEFITS AND BENEFICIARY GROUPS, 1986

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Beneficiary Group</th>
<th>Number (000)</th>
<th>Amount (000,000 US$)</th>
<th>B/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Govt health</td>
<td>Brazilians</td>
<td>135,000</td>
<td>5,898</td>
<td>44</td>
</tr>
<tr>
<td>INAMPS Southeast</td>
<td>SE Residents</td>
<td>58,000</td>
<td>1,838</td>
<td>32</td>
</tr>
<tr>
<td>INAMPS Northeast</td>
<td>NE Residents</td>
<td>40,000</td>
<td>587</td>
<td>15</td>
</tr>
<tr>
<td>Hospitals, public</td>
<td>pub hosp patients</td>
<td>1,485</td>
<td>669</td>
<td>451</td>
</tr>
<tr>
<td>Hospitals, private</td>
<td>priv. hosp patients</td>
<td>12,015</td>
<td>1,546</td>
<td>129</td>
</tr>
</tbody>
</table>

Tax deductions for health spending

<table>
<thead>
<tr>
<th>Tax Deduction</th>
<th>Beneficiary Group</th>
<th>Number (000)</th>
<th>Amount (000,000 US$)</th>
<th>B/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tax Deduction</td>
<td>High Income</td>
<td>6,000</td>
<td>300</td>
<td>50</td>
</tr>
<tr>
<td>Tax Deduction</td>
<td>Middle Income</td>
<td>100,000</td>
<td>300</td>
<td>3</td>
</tr>
<tr>
<td>Tax Deduction</td>
<td>Low Income</td>
<td>25,000</td>
<td>17</td>
<td>1</td>
</tr>
</tbody>
</table>

Sources: Mission estimates based on Vianna and Piola (1985) and Medici (1987). Note: Tax deductions are not necessarily comparable to public expenditures for health care.

126. The Brazilian hospital system offers a number of services at high cost for a few patients. These include renal dialysis, coronary bypass operations, foreign medical treatment, and intensive-care units. Brazil’s government spent more in 1981 on some 12,000 high-cost patients than on all of basic health services and disease control meant to serve 40 million people (World Bank 1988). Some efficiencies were achieved in 1983 and 1984 with the closing of unneeded chronic care facilities. Further improvements occurred in 1985 and 1986 with reduction of foreign medical care and the shift of patient care to underutilized public facilities. On the other hand, expensive organ transplants are again being performed, after a decade-long hiatus based upon high failure rates.

127. Efficiency. Under the INAMPS system of reimbursement by the system directly to providers (public and private), patients and providers have little incentive to reduce the number and cost of procedures. Private hospitals contracted by INAMPS (the health agency of MPAS) perform more than 5 times the recommended number of complementary (to the original diagnosis)
examinations using an international standard. With few incentives to keep costs down, the private sector, with more than 75 percent of all hospitals beds and more than 70 percent of all physicians, is a major contributor to high costs and inefficiency. The public sector provided subsidized credit for private hospital construction between 1974 and 1985, contributing to overbuilding and surplus capacity in high-income urban areas.

128. A telling example of unnecessary high costs is the very high rate of use of cesarian section deliveries in Brazil, 72 percent of which are paid for by INAMPS. Brazil's cesarian rate, 31 percent of births in hospitals, is the highest in the world. Table 14 presents cesarian section rates for Brazil and the United States:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;20</td>
<td>17.9</td>
<td>32.5</td>
<td>7.6</td>
<td>3.1 13.2</td>
</tr>
<tr>
<td>20-24</td>
<td>21.2</td>
<td>35.5</td>
<td>9.5</td>
<td>3.5 16.0</td>
</tr>
<tr>
<td>25-29</td>
<td>28.5</td>
<td>44.6</td>
<td>14.6</td>
<td>4.3 19.4</td>
</tr>
<tr>
<td>30-34</td>
<td>30.3</td>
<td>53.4</td>
<td>14.9</td>
<td>6.4 21.3</td>
</tr>
<tr>
<td>35+</td>
<td>21.7</td>
<td>49.1</td>
<td>11.8</td>
<td>7.9 24.4</td>
</tr>
</tbody>
</table>


One way INAMPS could cut costs would be to require middle- and upper-income beneficiaries to pay for cesarian section births, or at least pay the additional costs of such births over normal deliveries, an estimated US$13.4 million in 1985. About 1.5 million (out of 5 million total) pregnant women each year give birth without receiving any prenatal care. Each of these women could have 2 prenatal visits paid from the savings generated by charging the well-to-do for the extra cost of cesarian section deliveries.

129. Another cause of high costs in the health system is what Brazilians refer to as the "dupla militancia," or conflict of interest, that riddles the system. The majority of Brazilian physicians work as part-time employees at several jobs, some on a salary and some on a fee-for-service basis. In metropolitan Sao Paulo, which has the largest number of MDs of any city, physicians have on average 3.5 separate jobs (Donnangelo, 1982; Vianna and Piola 1986, 44). Most work for at least 1 public health facility (a municipal clinic or hospital, a state clinic, a university hospital or a facility of INAMPS), and 1 private facility. Typically, they use their employment in public clinics to recruit patients into a private facility where they can control service delivery. Thus, in 1986, government- facilities were responsible for 56 percent of medical and dental consultations, but for only 20 percent of hospital admissions.

130. By international standards, Brazilian physicians earn adequate incomes, even though public-sector salaries are low. A physician working for the state health secretariat in Sao Paulo earned about 9 minimum
salaries in 1987, that is, about US$540 monthly for 4 hours of work a day. He or she can add to this salary by working fewer than scheduled hours, by holding 2 public-sector jobs, and by maintaining a half-time private clinic or practice. A 1985 survey of physicians in Sao Paulo state revealed an average income of about 18 minimum salaries, the equivalent of US$1,100 monthly. These high incomes continue to draw bright students into medicine.

131. High costs of the curative system are due in part to a high ratio of doctors to other health workers. There are an estimated 5 to 10 doctors for every qualified nurse in Brazil, reflecting and reinforcing the curative bias as well as the high-cost approach to medical care. The number of doctors doubled in the 1970s and continues to grow rapidly. At current rates of production of MDs, their numbers will grow from 102,000 in 1980 to 262,000 in the year 2000, increasing the per capita availability of physicians by 70 percent (Vianna and Piola 1986, p. 42). It is likely that Brazil would have enough physicians even without subsidizing medical training.

132. At the same time, the geographic deployment of physicians is unsatisfactory -- too many in the cities, too few in the countryside. Physicians cannot earn an high enough income in rural Brazil to attract them away from cities. The state of Sergipe, for example, offers a premium of triple the city-based salary to public health physicians willing to locate in rural municipalities, yet these rural positions go unfilled. In the long run, much more of rural health care can and should be provided by health workers other than physicians.
E. Federal Nutrition Programs

133. Nutrition programs have historically captured only a small share of the social budget -- about 1.4 percent in 1986.\(^{25/}\) Even this number reflects a rapid increase in spending at the federal level since 1985; spending on the 5 targeted programs (see Table 15) in 1986 was 154 percent greater than in 1985 (Campino 1987, 5). This increased federal commitment to nutrition interventions has occurred in the absence of either a comprehensive survey of the nutrition status of the Brazilian population or careful evaluations of the cost-effectiveness of different nutrition programs.

134. The last comprehensive national nutrition survey, in 1975 (ENDEF), found high rates of malnutrition among Brazilian children, especially in the Northeast. Since then, there has been no equally comprehensive survey, and the local samples available are regarded as inconclusive with respect to whether, nationally, malnutrition has increased or diminished since ENDEF (Carvalho 1986). One 1986 survey conducted by a private group seems to show substantial improvements, but it is probably not comparable to earlier surveys (Demographic and Health Surveys, 1986). A common view is that the problem of malnutrition is as great today as it was in the mid-1970s.

135. At least 7 federal agencies currently operate some type of nutrition and food subsidy programs. Program acronyms, their ministry affiliations, and target groups are as follows:

\[\text{Table 15: BRAZILIAN FEDERAL FOOD AND SUBSIDY PROGRAMS, 1986}\]

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Ministry</th>
<th>Target Group/Beneficiaries</th>
</tr>
</thead>
<tbody>
<tr>
<td>* PSA</td>
<td>Health/INAN</td>
<td>Pregnant and lactating mothers, infants</td>
</tr>
<tr>
<td>PNAE</td>
<td>Education</td>
<td>School Children</td>
</tr>
<tr>
<td>* PROAB</td>
<td>Agriculture/Health</td>
<td>Poor Neighborhoods</td>
</tr>
<tr>
<td>* PAP</td>
<td>Agriculture/Health</td>
<td>Poor Neighborhoods</td>
</tr>
<tr>
<td>* PCA</td>
<td>Social Security</td>
<td>Children in day-care centers</td>
</tr>
<tr>
<td>* PNLC</td>
<td>SEAC</td>
<td>Children in poor families</td>
</tr>
<tr>
<td>PAT</td>
<td>Labor</td>
<td>Workers in designated companies</td>
</tr>
<tr>
<td>WPS</td>
<td>Finance</td>
<td>Growers and consumers of wheat</td>
</tr>
</tbody>
</table>

\(*\) Denotes targeted program.

\(^{25/}\) In previous chapters, this report has excluded the wheat price subsidy (WPS) and Worker feeding program (PAT), from estimates of total nutrition program expenditure because (i) the primary objectives of the WPS are not nutritional and (ii) the PAT is financed through a "tax expenditure" (i.e., foregone taxes) and not through the budget. However, this section includes the two programs in its review, because of the significant share of public resources they represent.
Four of the 8 programs listed above offer free food or meals: the Food Supplementation Program (PSA), the National School Lunch Program (PNAS), the Complementary Food Program (PCA), and the National Milk Program for Needy Children (PNMC). PAP and PROAB distribute food to a network of small shops to keep food prices down among the poor. Taken together, these 6 programs provide some food security to poor and vulnerable groups, although the school lunch program subsidizes all children, not just disadvantaged ones. The worker feeding program (PAT) and the wheat subsidy (WPS) are not targeted to the poor.

136. PSA is administered by INAN (National Institute for Food and Nutrition), an organ of the Ministry of Health; it distributes food to pregnant and lactating women through clinics and health posts of the state health secretariats. PSA coverage is scheduled to increase from 4 million beneficiaries in 1985 to 13.5 million, especially in the Northeast, by 1989. Spending in 1986 was about US$170 million; it is expected to rise to US$265 million by 1989. Based upon visits to PSA distribution points in Osasco SP and Olinda PE, it appears that greater decentralization, the use of a voucher system, and improved targeting would all add to the effectiveness of this useful program (Musgrove 1987; Campino 1987, 22-29).

137. PNAE, the National School Lunch Program, is administered by MEC to benefit schoolers and school children attending public primary schools and preschools. The program reached almost 30 million children for 180 days of the year in 1986 and represented almost 40 percent of all federal government outlays on primary education. Coverage is expected to grow to 34 million in 1989. One study showed that this program is a major inducement to school attendance in rural Brazil (Castro and Fletcher 1985), but there have been no evaluations of its impact on nutrition or on students' learning performance. Thus, it is not known to what extent the school lunch program substitutes for food available in the home, rather than supplementing it.

138. The school lunch program makes no effort to restrict free meals to the needy. Students throughout the country (excluding Sao Paulo state, which has its own school lunch program) receive the same subsidy, regardless of income. The school lunch program also entails the centralized provision and distribution of foodstuffs by FAE. FAE is experimenting with decentralization in selected municipalities, covering 1.6 million students. The costs and benefits of further decentralizing the school lunch program should be evaluated, by examining the current FAE experimental program and by studying the experience of Sao Paulo state.

139. PAP/PROAB, the Popular Food Program, is administered jointly by the Ministry of Agriculture and INAN. Its aim is to cut basic food costs for the poor by means of low-cost systems of purchase, transport, distribution, and marketing in poor neighborhoods. It uses the Sorv network system, a network of retail outlets supplied by the Brazilian Food Company
(COBJA), a state-owned enterprise. An advantage of PROAB is that it offers considerable consumer choice; on the other hand, its efficiency is not great enough to sustain much price advantage over commercial food stores (Campino 1987, 36-40).

140. PCA, the Complementary Feeding Program, is administered by the Brazilian League for Social Assistance (LBA), a part of the Ministry of Social Security. (PCA is separate from a program of day-care centers for children under 4 years of age, who are fed and cared for while their mothers are at work.) It offered services to 1 million pregnant women in 1985 and 2 million in 1986. An evaluation of the anthropometric impact of PCA found very high costs (US$400 per child to maintain normal weight gain for 1 year) and evidence that some children worsened their nutritional status while participating in the program (Campino 1987, 55-56). Better targeting will be essential to make this program cost effective.

141. A program providing for milk distribution (PNLCC) was begun in 1985 and is operated by the Secretariat for Community Action, attached to the Presidency of the Republic. Its aim is to provide milk to children in poor families. The milk program began in the last months of 1985 and spent US$50 million in 1986. By May, 1987, 4.1 million children, mostly in state capitals, were being served by the program. Approximately 3.65 billion liters of milk per year are scheduled to be distributed by 1989, when, as planned, it will be the most costly of the 5 nutrition programs. It will be financed in part with in-kind services offered by community groups as their counterpart contribution to federal assistance.

142. Targeting. Table 16 shows aggregate spending on these programs in 1986 and spending per program beneficiary. The wheat subsidy was by far the most expensive, costing almost twice as much as the 5 targeted programs taken together. The high unit costs of the worker feeding program, US$45 per beneficiary, are also striking, especially given its lack of targeting to low-income workers and the dubious nutrition impact of a program largely aimed at the male adult population.

143. All 8 programs together cost US$1.9 billion. Campino (1987, pp. 61-68) demonstrates that a coupon program targeted on the poorest households in Brazil -- the 19 percent of all Brazilians in households with a per capita income of less than one-quarter of the minimum salary (25 million people) -- would cost US$1.6 billion, little more than the amount spent in 1986 for the wheat subsidy. Restricting food assistance to poor households with children under age 6 would bring the costs of a coupon program down to US$1.3 billion. Further restricting programs to such

26/ These programs assume that poor families pay high prices for food due to the large sales margins that small retailers need to charge because of their low sales volume. Musgrove and Galindo (1986) present findings that reject this hypothesis. The 1984/85 spending survey on which they report shows only minimal price differences (less than 10 percent in most cases) among outlets.
households in the Northeast, where 59 percent of all poor households by this definition live, would reduce costs even more.

Table 16: NUTRITION PROGRAM SPENDING, 1986 (US$)

<table>
<thead>
<tr>
<th>Program</th>
<th>Total spending (US$ millions)</th>
<th>Spending per beneficiary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheat subsidy (WPS)</td>
<td>1,100</td>
<td>8 /b</td>
</tr>
<tr>
<td>PAT worker feeding /a</td>
<td>156</td>
<td>45</td>
</tr>
<tr>
<td>* PSA/MCH posts</td>
<td>173</td>
<td>21</td>
</tr>
<tr>
<td>School lunch (PNAE)</td>
<td>364</td>
<td>12</td>
</tr>
<tr>
<td>* PAP favelas</td>
<td>25</td>
<td>6</td>
</tr>
<tr>
<td>* PROAB favelas</td>
<td>13</td>
<td>8</td>
</tr>
<tr>
<td>* PCA welfare centers</td>
<td>33</td>
<td>24</td>
</tr>
<tr>
<td>* PNLCC milk distribution</td>
<td>48</td>
<td>33</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>1,912</strong></td>
<td>n.a.</td>
</tr>
<tr>
<td>(Total, excluding WPS and PAT)</td>
<td></td>
<td>656</td>
</tr>
</tbody>
</table>

* Denotes targeted program.


Note /a: Tax expenditure, not included in federal budget.
/b: Total subsidy divided by total population of Brazil.

Put another way, if the total amount of US$1.9 billion could be targeted efficiently to the 19 percent of the Brazilian population living on household income of less than one-quarter of a minimum salary per capita, each of those persons would receive a subsidy of US$74 a year, raising their income by at approximately 60 percent.
IV. OPTIONS FOR REFORM

145. This chapter discusses options for change in the way social programs in Brazil are organized and financed. Four major categories of options are considered. First, options to improve targeting of public spending, including charging those who can afford to pay for certain programs, and encouraging the provision of some services by the private sector, are discussed. Second, the major options to improve efficiency of public programs, i.e., decentralization of service delivery to state and local government, are considered. Third, alternative means of financing social programs, including elimination of earmarking and reduced reliance on payroll taxes, are discussed. Finally, an enhanced role for the federal government in quality control and the provision of consumer information is advocated. How these options could apply to each sector is reviewed.

146. The chapter concentrates on those options that are, at least in principle, possible at the federal level, or are under the control of federal-level officials. Many improvements in the way states and local governments organize and deliver social services are needed, but these have not been the primary focus of this report. Even at the federal level, however, options need to be considered not only in the light of their possible ultimate effects on targeting and greater efficiency, but in the light of their political and administrative feasibility. Political and administrative constraints are likely to affect the timing of possible reforms, and even, of course, the possibility of particular reforms.

A. Better Targeting

147. The targeting of federal expenditure could be directly improved:

- By reducing the growth of government spending on programs that subsidize the middle and higher-income classes and increasing spending on services of a public goods nature and on programs efficiently targeted to the poor.

- By ensuring that general government revenues do not finance the deficits of programs such as social security and housing.

- By targeting federal subsidies to specific areas and age-groups; i.e., to the poor in rural areas and in the Northeast, and to poor children and mothers in low-income households, particularly in female-headed households.

148. How can these principles of targeting be implemented?

1. By sharing the cost of government services with beneficiaries who can afford to pay;

2. By encouraging the for-profit private sector to complement government social services for those able and willing to pay; and
encouraging not-for-profit sector (non-governmental organizations (NGOs)) to supplement government efforts to target services to the poor.

3. By decentralizing social programs to achieve flexible targeting and government accountability.

B. Decentralization and Increased Local Accountability

149. If proposals currently under discussion by the Constituent Assembly are enacted, state and local governments will have increased revenue-raising authority and more direct control over social sector resources than in the past. This tax reform could be a positive development, as local taxation is generally more transparent than federal taxation: community members perceive more readily what they are paying and the quantity and quality of local services they receive, making government more accountable. As discussed in Chapter II, this transparency is often a powerful impetus to efficiency in service delivery.

150. State and local governments are also in a better position to exploit non-tax forms of revenue mobilization. They can recover costs from the sale of such public services as water and sanitation, sometimes structured so that wealthier blocks of consumers (such as commercial establishments) cross-subsidize poorer neighborhoods. Urban development projects in Bahia, Parana, Pernambuco, and Santa Catarina already incorporate direct and indirect cost-recovery policies and cross-subsidy mechanisms for basic municipal services. These practices need to be disseminated nationally. Local governments can also introduce fees or copayments from the recipients of education, health, and other services, again sometimes on a sliding scale in accordance with capacity to pay. All of these methods merit serious consideration, not least as a means of introducing better signals of individual and community demand for services and increasing local agencies' accountability in service delivery.

151. No matter how far the decentralization eventually extends, the federal government has a critically important role to play in stimulating and shaping the process. Decentralization in and of itself is no panacea, particularly in programs where overall administrative systems are weak, the quality of staff in lower levels of the system is poor, and the costs of assuring that funds are not misused are high. For these reasons, the process of decentralization and the mechanisms by which it takes place must be carefully thought through, on a program-by-program basis. Decentralization will also not eliminate the need for transfers among and within states to achieve distributional goals. Finally, decentralization cannot be done all at once; for most programs, it must be done gradually, and will require continuous support from the federal government in the form of planning, technical guidelines and policy oversight.
152. To stimulate efficient decentralization and increased local accountability, as a first step, federal matching fund arrangements should be introduced as a substitute for convenios; these would increase state and local governments' incentives to introduce cost recovery mechanisms or increase local taxes. The poorer regions should not be exempt from the search for efficient modes of direct cost recovery or taxation of the wealthy. They should be required to compete for the same pool of federal matching fund resources; as described in Chapter II, however, the matching ratios should be more or less generous, depending upon regional per capita income.

153. Although the tax reform currently being considered will substantially increase financial resources at the state and local levels, some transfers from the federal government will still be required. In place of convenios, discretionary federal transfers should exclusively be made either through matching fund arrangements, or on the basis of simple, objective, and transparent criteria -- such as population size and per capita income. In addition, federal transfers to municipios, except those under special programs of matching grants, should be gradually eliminated in favor of transfers to states; states should have the responsibility for review and evaluation of local programs and for assuring that funds are responsibly used at the local level, as in the municipal development projects currently financed by the World Bank.

C. New Approaches to Financing

154. Eliminate Earmarking. Although earmarking is often well-intentioned, it can cause serious distortions in resource allocation and inefficiencies in program management. The earmarking of revenues for particular types of expenditure (such as the education salary tax) can cause expenditure patterns that, over the long-term, are inefficient; it can also force administrators to devote substantial effort to expenditure-juggling or seeking ways to contravene the restrictions. A more important form of earmarking in Brazil, however, has been allocation of the major social funds to particular federal agencies (much of FINSOCAL revenues to BNDES, lottery revenues to the Caixa Economica Federal, the Education Salary tax to FAE, and PROTerra to the Ministries of Interior and Agrarian Reform for agricultural programs in the Northeast), to some extent outside of the overall budget process. This has tended to build empires, preclude the periodic reassessment of social program priorities, and foster the proliferation of convenios.

155. Earmarking of revenues for particular types of expenditures can and should be wholly eliminated. If the federal government wishes to influence the expenditure mix (as between teacher salaries and teaching materials, for example) of state and local agencies, a more promising approach would be to provide positive incentives for good performance.
Rather than earmarked to individual agencies, the social taxes and contributions could be pooled in a single fund with a broad mandate to support social programs, and allocated to specific programs as a part of the annual budget process. Part of the mandate of this "social fund" should be to replace convenios with transparent processes for the allocation of resources, to require matching funds from state and local governments in order to contribute to overall resource mobilization and reduce reliance on central payroll taxes, and to introduce performance criteria, such as agency cost-effectiveness or innovativeness, as a basis for federal funding decisions. These actions would encourage program managers to mobilize and deploy resources efficiently.

Reduce Reliance on Payroll Taxes. The heavy reliance on payroll taxes and payroll-based contributions from formal sector enterprises for the financing of social programs causes numerous economic distortions, including tax avoidance by deormalization of the labor force and excess use of capital relative to labor in production processes. To reduce these distortions, the tax base for social programs should be broadened. The major options include expanded dependence on income and value-added taxes and corporate profits tax; extension of the income tax liability to the self-employed and the informal sector could also be considered, but this presents higher administrative costs. Because the level of payroll taxes is high, shifting to a broader tax base would necessitate adjustments in other parts of the economy, so changes should be phased in gradually, over a period of at least 5 years. These and other issues are the subject of a separate World Bank report, on taxation, which is currently under preparation. Most importantly, tax reform should be accompanied by actions to increase the share of overall resources for social programs that are mobilized by state and locally levied taxes and by direct cost recovery from the (higher-income) users of public social services.

D. The Federal Role in Quality Control and Consumer Protection

Relative to other countries, and particularly developed countries, the role of the federal government in Brazil in public health education, accreditation, regulation, and the provision of consumer information about public and private social services is limited. For example, despite the increasing importance of lifestyle- or environment-related chronic diseases, such as cancer and heart disease/stroke, -- which health experts believe will soon be Brazil's number 1 health problem -- the federal government has yet to develop an effective anti-smoking campaign or public information campaigns about the role of diet and exercise in preventing heart disease. As noted in Chapter III, the Ministry of Health spends only a minuscule share of its overall budget on family planning information and services -- less, in fact, than the Government spends on cesarian births each year.

Regulation, Quality Control, and Public Information in Health. Particularly in health, federal and state regulation leaves much to be
desired; deficiencies in the oversight of hospital use of radioactive materials were largely to blame for the 1987 tragedy in Goiana, and hospital practices in disposing of waste materials in general -- most of which are dumped with no special precautions in crowded urban areas -- are a serious health hazard. With respect to prescription drugs, the federal government maintains few laboratories for testing and certification, and has almost no capacity nationwide to ensure that drug expiration dates are observed. In some of these cases, the problem is not so much insufficiently stringent federal regulations, as the limited capacity of the Ministry of Health to enforce them nationally. Investment in a strong national regulatory capacity, however, is one of the most efficient forms of federal social expenditure.

160. Accreditation, Quality Control and Public Information in Education. Accreditation and the provision of public information about school quality is an important service, especially given the large number of private schools in Brazil. A federal agency (CAPES) has been quite effective in evaluating graduate programs at major public and private universities in Brazil and the results of CAPES' evaluations have been disseminated by private publishers. With more resources, CAPES' staff could evaluate undergraduate programs, as well. Over time, the establishment of CAPES-like institution to cover non-university higher-level institutions should be considered, as the need for quality control is great, given the number (615 in 1983) and diversity of such institutions. A major problem has been the regulation of tuition at private universities and institutes, as well as at the secondary and primary levels, which are the responsibility of state education councils. The difficulty of keeping tuition levels regularly adjusted in a highly inflationary economy has led to the erosion of revenues for many private schools and consequent reductions in quality. Given the number and diversity of schools in most parts of Brazil, competition and consumer demand can be expected to regulate tuition levels efficiently; the government should relinquish direct control of tuition levels and concentrate on providing consumers with accurate information about school quality.

161. Another area for increased federal government support to state and local governments is in the development and introduction of standardized achievement tests. These tests should not be used to evaluate individual children. Rather they should be used to diagnose and evaluate state and municipal efforts in basic and secondary education, as a management tool for continuous improvement of the system. The federal government should also support more comparative studies of education effectiveness. The recent studies on comparative unit costs of basic education among states (cited in Chapter II) is a good example of this kind of work. Numerous other areas merit investigation, including the causes of high repetition and dropout rates in primary education, as well as studies of income levels of students in secondary and higher education and their ability to pay. In addition, a review of key issues in secondary education, which the public sector has to a great extent abandoned, is urgently required; the poor quality of public secondary education is now a major barrier to social mobility for children of poor families. In general, the federal role should be in identifying and
financing such studies, which should be carried out by university and other research groups.

162. **Planning and Evaluation.** At the federal level, an increase in resources for policy, planning, and evaluation of social programs delivered by all levels of government, as well as for analysis of privately provided social services, is warranted. Four specific activities would be:

- **A consolidated social budget.**

A consolidated social account covering social expenditures at all levels of government (net of transfers from other levels) would make it easier to answer such questions as: Are retirement programs too generous, compared to maternal and child health care? Is too much spent on higher levels of schooling, too little on primary education? Do nutrition programs for the very young need to be increased, even at the cost of school lunches? These kinds of questions need to be answered as part of the ongoing process of establishing and reviewing social priorities. The most important advantage of a consolidated social budget would be the increased transparency of government action aimed at providing basic needs to all Brazilians.

- **Annual review of the social situation.**

The government could publish an annual review of social well-being, summarizing the status of vulnerable groups, progress in addressing their needs, and assessments of the efficacy of various programs. There is already some precedent for such analyses in the periodic reviews of the Program of Social Priorities prepared by the staff of SEPLAN during 1985 and 1986 (SEPLAN 1986d, 1986e). FIBGE, in cooperation with UNICEF, has also published a useful data series and analyses on the welfare of children (FIBGE 1982, 1984, 1986). A book published with the encouragement of President Sarney offers a broad vision of Brazil in the year 2000 by examining the prospects for social program development (Jaguaribe, et al., 1986). These reviews need to be complemented by an explicit federal effort to gather, analyze, and disseminate comprehensive and detailed indicators of the social welfare of different segments of the population.

- **Program evaluation.**

Evaluation of social programs is important to determine whether benefits are reaching poor and vulnerable groups, and to compare the cost-effectiveness of different programs. In the process, evaluations can help program managers refine objectives and better link them to program inputs. Do school lunches aim merely to fill plates with food, or are they an intermediate step to achieve better nutrition and school performance? If plate-filling is the objective, evaluators need only monitor the kitchens and tables of schools to see that children are being fed. If the larger objective is sought, however, evaluators must explore the linkage between full plates and students' physical development and school performance. Such objective-oriented evaluation might reveal, for example, that regularity of lunch
delivery is more important than its quantity. Similar evaluations are warranted for all major programs.

- An agenda for reform of federal social programs.

Preparation of an agenda for reform can be an ongoing process, based on the above 3 activities. An initial agenda could begin with reflection on the principles suggested in this report: priority for the provision of public goods; targeting to low-income groups; transparency in the process of intergovernmental transfers; and greater simplicity and local control in methods of financing. Are these principles attractive as guides to public policy? Can political support be gained by respecting these principles? Can programs be changed if they are not consistent with these principles? These are some of the questions to be answered as a first step. Over time, an agenda for reform should develop increasingly detailed proposals for the retargeting of some programs, the phasing out of others, and the implementation of new approaches. A key issue for such an agenda is planning the phasing of reforms to ensure administrative feasibility, political acceptance, and to avoid disruption of social service delivery to the neediest groups.

E. Options at the Sectoral Level

163. Social Security. In the area of social security, better targeting in the long run, as well as greater effectiveness in allowing for shared risks, implies a gradual reduction in the amount spent for early retirement benefits relative to other benefits. Any reduction in any social security benefit will be politically difficult to introduce and will require legislative action; such change may be more feasible if it is tied to an increase in other benefits, possibly including rural benefits, designed to make the social security program as a whole more equitable. Change can be introduced slowly at the same time that efforts are made to increase public understanding of the inefficiency and inequity of the current system. There are a number of possibilities: a gradual increase in the number of years of service required for early retirement, perhaps applied only to new workers in the system; introduction of a minimum age of retirement; and a cap on the amount of income entered into the valuation of the benefit.

164. Introduction of any changes will require careful study and public dissemination of the expected effects on revenues and expenditures over many years. The federal government can play a critical role in this area, by assessing periodically and publishing annually the actuarial balance of the system, assuming maintenance of current benefits, and comparing the costs of alternative benefit packages. In the long run, improved public understanding of the issues involved is bound to be critical in ensuring a fair system that remains solvent.
165. The government should also study how the benefits of the social security system are distributed among workers of different regions, occupations, and average income. To do so will require much better information than is currently available, i.e., creation of a data base on individual contributors and beneficiaries.

166. Education. To reduce the subsidy that higher-income families receive from public higher education and to increase resources available for secondary and primary education will eventually require that those who can afford to pay the costs of their university education do so, through some form of user charges. Gradual steps that could be introduced in the short run are: fees for application and registration; the introduction of student work programs, so that students are may work a minimum number of hours in school facilities (libraries, cafeterias) in lieu of fees, and; elimination of subsidies for consumables and expendables, such as meals in school cafeterias, linen in school dormitories, books, laboratory use, and parking. Special charges in specific areas of training that are particularly costly, such as medical education, or are oversubscribed, such as law, should also be considered. The gradual introduction of such charges must be clearly associated with accompanying improvements in quality; this is easiest where the connection is most obvious -- if, for example, laboratory and book fees finance access to materials that were not previously available to students. The long-run objective should be to introduce tuition fees for all those able to pay, loan programs for students requiring financial assistance, and scholarships granted on the basis of merit for outstanding low-income students.

167. The federal government could also initiate programs to provide special matching grants to universities (whether private, state, or federally administered) that raised funds from any nongovernment source, be it through user charges, alumni contributions, private donations, or donations from firms in the private sector or state enterprises. Such an approach would provide an incentive to public as well as private universities to develop and implement good programs. The proportionate contribution of the federal government under such a program could vary across institutions depending on the income potential of the state or other region and of the students.

168. Any increase in user charges to students implies the need for expansion of student loan programs and scholarships, to assure that low-income students who do manage to reach public universities are not barred from entry for financial reasons. Student loan programs have their own special difficulties, but World Bank studies indicate that their full potential has not been realized in Latin America, and that well-known problems of delinquency are, at least in part, due to insufficient allocations for follow-up and enforcement of repayments and overly rigid schedules of repayments (Woodhall, 1983). In recent years, the government of Brazil has taken sound steps in this direction. The effectiveness of loan administration should be monitored closely as the student loan program (currently geared to students attending private institutions) is expanded.
With systems of matching grants, the federal government could also encourage state governments to experiment with new approaches to support for private education, as well as new approaches to cost recovery in higher education. The federal government should also consider consolidating all basic education transfers into a single fund with a few key objectives, such as encouraging cost-effective approaches to quality improvements in basic education through, for example, more effective utilization of teachers, greater community involvement in school building maintenance, and low-cost expansion of pre-school education.

Finally, as noted in Chapter II, more rapid decentralization of the federally administered textbook and school meal programs would allow state and local governments to target such programs more effectively, make programs more responsive to local needs, and exploit local production possibilities more efficiently.

Health. In the area of curative hospital care, the government, through INAMPS, has already been partly successful in controlling costs through implementation of a system of controlled payments to hospitals for particular procedures. Continuing efforts to control costs should be accompanied by institution of other incentives to doctors and patients to discourage use of unnecessary medical procedures (X-rays, cesarian sections, excessive laboratory and other tests). One possibility is introduction of deductibles (a minimum amount paid by the patient before any reimbursement through INAMPS is possible) and copayments (a percentage amount paid by the patient on all costs -- sometimes with a cap). To some extent, the rich already cofinance some of their medical care when they use private doctors rather than public facilities. However, even the rich resort to INAMPS facilities for many costly procedures; a system of deductibles and copayments for those above a certain income would reduce subsidies to higher-income groups, and discourage overuse of certain procedures that may not be medically warranted. To avoid burdening the poor, payment of deductibles and copayments could be applied only to patients seeing private practitioners, or using private rooms in public or philanthropic hospitals, or having selected procedures. Payments could be waived for patients referred to hospitals through a government health post. These and many other approaches to protecting the poor would need to be considered were the current system of reimbursement, which in effect makes procedures free to all covered patients, altered.

The recent growth of health maintenance organizations and physician-sponsored prepayment plans should be encouraged, through institution of government programs to monitor and inform consumers about the costs and effectiveness of medical care delivered by these systems. Wherever possible, government should avoid controlling directly the prices of privately provided health services. Emphasis instead could be put on systems to review private services and to provide regular public information on the quality of private (and public) institutions providing medical care, and on the costs and effectiveness of pharmaceuticals.
173. In health, as well as in education, the federal government should encourage expansion of the nonprofit private sector, or non-government organizations (NGOs). NGOs are a potential source of assistance to society as a whole in the furtherance of social objectives. An important advantage of NGO-provided services is that they are often able to use differential prices to recover some costs yet protect fully the poor, because they generally work closely with communities and are well-informed about the ability of users to pay. This efficiency in targeting at the micro level is an important argument in favor of government support for the expansion of NGO-provided services, via start-up grants and matching grants.

174. Under the SUDS programs (Systema Unificado e Decentralizado da Saude), the federal government is already active in a program to integrate the curative and preventive health subsystems of INAMPS and the Ministry of Health, as well as the training and university hospital programs of the Ministry of Education. Decentralization of federal programs to state health secretariats is beginning, as explained in Chapter III; eventually, decentralization within states to municipalities or other units should also occur. Every effort should be made to reinforce and speed these steps of decentralization.

175. Housing and Municipal Services. Housing subsidies should be focused exclusively on programs for low-income groups. Housing programs need to address problems of land tenure and lack of roads, sanitation, and social services in slum areas. Subsidies for the investment costs of water, sanitation, and roads should be restricted to urban slums and poor rural areas.

176. Nutrition. In the area of food and nutrition, programs that have been successful from an administrative point of view and have solid political and technical support (e.g. the milk distribution program and to some extent the school lunch program) should be developed in ways that orient them better to target regions or population groups. The milk distribution program, for example, could be associated with basic health facilities, so that the nutrition supplementation could be targeted to lactating and pregnant women and to infants and young children. The federal school lunch subsidy could be increased for poorer states, with offsetting decreases for richer states. A new food stamp program that would utilize a network similar to that of the milk distribution program, and would concentrate on subsidizing foods that are consumed largely by the poor, could be considered.

177. The wheat price subsidy and the worker feeding program (PAT) should be eliminated, in order to free resources for targeted nutrition programs.

178. Gradual decentralization of some nutrition programs should also be encouraged. Though preliminary efforts to decentralize some programs, such as school feeding, have been made, the federal government has not set in place adequate arrangements for monitoring and evaluating the process. If school feeding and such other programs as PROAB were decentralized to the
local level, they could become more efficient; in addition, in the Northeast, they could provide new marketing opportunities for rural food producers, with strong backward linkages to production and incomes.


REFERENCES

* denotes background papers prepared for this report


Brazil, Ministerio de Educacao. 1985. Educacao para Todos, Brasilia: MEC.


------, SEPLAN, 1986, Prioridades Sociais do Governo: Sexto Relatorio de Situacao (Andamento PPS/85 e Informacoes Preliminares PPS/86), mimeo, Brasilia: IPEA/IPLAN
