

PN ART-110
91130

Consulting
Assistance on
Economic Reform

CAER Discussion Papers



Directed by
Harvard Institute for International Development
Sub Contractors
Development Alternatives, Inc.
Williams College
Interamerican Management Consulting Corp.
Associates for International Resources and Development
Sponsored by
The U.S. Agency for International Development
Contract PDC-0095-Z-00-9053-00

Consulting
Assistance on
Economic Reform

CAER Discussion Papers

The aim of the Consulting Assistance on Economic Reform (CAER) project is to help developing nations design, implement, monitor, and evaluate economic policy reforms. The contract is with a consortium led by Harvard Institute for International Development (HIID). Funded by the U.S. Agency for International Development (Contract PDC-0095-Z-00-9053-00), it gives A.I.D.'s missions and Washington offices access to economists and other social scientists with extensive practical experience who are highly regarded within their professional disciplines. Some of the CAER work generates results of interest to a broad audience. The CAER Discussion Papers series provides a convenient and consistent form in which to share these results.

Poverty and Structural Adjustment in the 1980s: Trends in Welfare Indicators in Latin America and Africa

Elliot Berg
Graeme Hunter
Tom Lenaghan
Malaika Riley



CAER Discussion Paper No. 27, November 1994

The views and interpretations in these papers are those of the authors and should not be attributed to the Agency for International Development, the Harvard Institute for International Development, or CAER subcontractors.

For information contact:

CAER Project Administrator
Harvard Institute for International Development
One Eliot Street
Cambridge, MA 02138, USA
Tel: (617) 495-9776 FAX: (617) 495-0527

A

**Poverty and
Structural
Adjustment
in the 1980s:**

**Trends in Welfare
Indicators in Latin
America and Africa**

Prepared for the Office of Small, Micro and Informal Enterprise, Bureau for Private Enterprise, U.S. Agency on International Development under a subcontract to Consulting Assistance on Economic Reform, contract number PDC-0095-Z-00-9053-03

Elliot Berg
Graeme Hunter
Tom Lenaghan
Malaika Riley

September 1994



7250 Woodmont Avenue, Suite 200, Bethesda, Maryland 20814

B

PREFACE

This report was prepared in response to a request from the U.S. Agency for International Development (USAID) for a review of the empirical evidence on the impact of structural adjustment policies on the poor of Latin America and Africa during the 1980s. It became apparent as the study proceeded that a second area of inquiry existed that was broader than that of the poverty impact of adjustment programs and market-oriented policies. This area of inquiry was the question of what happened to the Latin American and African poor in general during the 1980s, independent of whether their governments adopted policy reforms.

This broader question came to take center stage in the research for several reasons. The formidable data and conceptual problems involved in measuring social impacts of policy reform put down serious limits on what could be said within the constraints of our study, which was restricted to the analysis of existing data and review of other studies. But more important was the need to assess the validity of alarming assertions about a general degradation of living conditions in Latin America and Africa. These assertions were put into circulation by United Nations Children's Fund spokespeople and others in the mid-1980s. The assertions have come to be accepted as fundamental truths in the intellectual community and the popular media. Yet initial exploration of available evidence immediately raised doubts about their empirical foundations. A closer look seemed called for, especially because a review of all the evidence was in any case a prerequisite to any analysis of whether adjustment had hurt the poor.

The limits of this study have to be emphasized. It consists first of assembling available data on poverty measures and social indicators, and reviewing general tendencies. Second, the authors used these data to make simple comparisons between countries that have undertaken policy reforms and countries that have not. We incorporate information from case studies and other kinds of analyses.

The study is not intended to be a definitive statement on the issues raised; it is more a widening of a debate that has been present but in a muffled form. The authors believe, nonetheless, that the central conclusion of the study will stand firm: that the existing evidence does not support the two most widely believed propositions about trends in social indicators in Latin America and Africa — that they deteriorated severely in the 1980s and that the adoption of market-oriented structural reforms contributed importantly to this deterioration. The bulk of the evidence points in the other direction. Although average income per capita fell and numbers in poverty increased, conditions of life as measured by such social indicators as nutritional status, child mortality, protection against disease, and access to schooling deteriorated little or not at all in the 1980s. To the contrary, by most of these measures, social conditions improved. Moreover, poor people in countries that adopted stabilization and structural reforms did not suffer more, or do less well on social indicators, than poor people in countries that were less reform minded. And to the extent that reforming countries enjoy faster growth, which now seems to be happening in countries of these regions, their poor are on the road to becoming clearly better off.

The views and interpretations in this book are those of the authors and should not be attributed to USAID.

Elliot Berg
September 1994

TABLE OF CONTENTS

	<u>Page</u>
EXECUTIVE SUMMARY	xi
CHAPTER ONE	
INTRODUCTION	1
<u>PART ONE</u>	
<u>LATIN AMERICA AND THE CARIBBEAN</u>	
CHAPTER TWO	
POVERTY TRENDS: INCOME MEASURES	7
TRENDS IN ABSOLUTE POVERTY	7
Problems of Definition	7
Findings from the 1993 World Bank Report on Poverty and Income Distribution	8
Data Limitations	9
Changes in the Incidence of Poverty	10
TRENDS IN INCOME DISTRIBUTION	12
OTHER INCOME-BASED WELFARE MEASURES	14
Private Consumption	14
Wages	14
Unemployment	17
TRENDS IN THE EARLY 1990s	17
SUMMARY	17
CHAPTER THREE	
TRENDS IN PUBLIC EXPENDITURES	19
TOTAL PUBLIC EXPENDITURES	
Shares of Government Spending in GDP	19
Real Per Capita Public Expenditures	21
SOCIAL SECTOR EXPENDITURES	21
Shares	21
Real Per Capita Expenditure	26
TRENDS IN THE EARLY 1990s	26
SUMMARY	29

**CHAPTER FOUR
OUTCOMES: SOCIAL INDICATORS** 31

NUTRITIONAL STATUS	31
Calorie Availability	31
Prevalence of Underweight Children	32
Proportion of Underfed People	32
INFANT MORTALITY RATES	35
CHILD MORTALITY RATES	35
LIFE EXPECTANCY	35
VACCINATION RATES	39
PRIMARY NET ENROLLMENT RATIOS	39
PRIMARY SCHOOL STUDENT-TEACHER RATIOS	39
ILLITERACY RATES	43
TRENDS OF THE EARLY 1990s	43
SUMMARY OF EMPIRICAL EVIDENCE FOR LATIN AMERICA	43

**PART TWO
SUB-SAHARAN AFRICA**

**CHAPTER FIVE
POVERTY TRENDS: INCOME MEASURES** 49

TRENDS IN ABSOLUTE POVERTY	49
OTHER INCOME-BASED WELFARE MEASURES	51
Private Consumption	51
Wages and Employment	52

**CHAPTER SIX
TRENDS IN PUBLIC EXPENDITURES** 57

TOTAL PUBLIC EXPENDITURE	57
Shares of Government Spending in GDP	58
Real Per Capita Public Expenditures	58
SOCIAL SECTOR EXPENDITURES	58
Shares	58
Real Per Capita Expenditures	64
TRENDS IN THE EARLY 1990s	64
SUMMARY	64

**CHAPTER SEVEN
OUTCOMES: SOCIAL INDICATORS 69**

NUTRITIONAL STATUS	69
Calorie Availability	69
Prevalence of Underweight Children	70
Proportion of Underfed People	73
INFANT MORTALITY RATES	74
CHILD MORTALITY RATES	74
LIFE EXPECTANCY	74
VACCINATION COVERAGE	77
PRIMARY NET ENROLLMENT RATIOS	80
PRIMARY STUDENT-TEACHER RATIOS	80
ILLITERACY RATES	80
TRENDS IN THE EARLY 1990s	83
SUMMARY OF THE EMPIRICAL EVIDENCE FOR AFRICA	83

**PART THREE
INTERPRETATIONS AND CONCLUSIONS**

**CHAPTER EIGHT
THE IMPACT OF STRUCTURAL ADJUSTMENT
PROGRAMS ON THE POOR 89**

METHODOLOGICAL ISSUES	90
SOCIAL PERFORMANCE OF ADJUSTERS AND NONADJUSTERS	93
FINDINGS FROM TWO WORLD BANK REPORTS	94
RAL II	95
RAL III	97
COMPARING SOCIAL PERFORMANCE OF ADJUSTERS AND NONADJUSTERS	97
Adjustment and the Poor in Latin America	98
Adjustment and the Poor in Sub-Saharan Africa	102

**CHAPTER NINE
EXPLAINING THE PARADOX: IMPROVED OUTCOMES AMID
DECLINING INCOMES AND PUBLIC EXPENDITURES 107**

POSSIBLE EXPLANATIONS OF PARADOX	107
Outcome Indicators are Wrong or Misleading	107
Outcome Measures are Correct, but Lagged	109
Some Outcome Measures (Health) Reflect Success of Low-Cost Interventions	110
Public Expenditure Measures are Incomplete	112
Improved Efficiency and Equity of Expenditures	114
DID ADJUSTMENT POLICIES MAKE A DIFFERENCE?	120

CHAPTER TEN	
CONCLUSIONS	121
BIBLIOGRAPHY	131
ANNEX A: GLOSSARY OF KEY TERMS	A-1
ANNEX B: IMF/WORLD BANK LENDING FOR STRUCTURAL ADJUSTMENT	B-1
ANNEX C: DEFINITIONS OF ADJUSTMENT LENDING, LATIN AMERICA	C-1
ANNEX D: STATISTICAL TABLES, LATIN AMERICA	D-1
ANNEX E: DEFINITIONS OF ADJUSTMENT LENDING, SUB-SAHARAN AFRICA	E-1
ANNEX F: STATISTICAL TABLES, SUB-SAHARAN AFRICA	F-1

LIST OF TABLES AND FIGURES

<u>Table¹</u>	<u>Page</u>
1 Absolute Poverty	11
2 Income Distribution	13
3 Real Per Capita Private Consumption	15
4 Real Wages	16
5 Urban Unemployment Rates	18
6 Government Expenditure as a Percentage of GDP	20
7 Real Per Capita Government Expenditure	22
8 Education Expenditure as a Percentage of Government Expenditure	23
9 Health Expenditure as a Percentage of Government Expenditure	24
10 Trends in Government Expenditure Priority	25
11 Real Per Capita Education Expenditure	27
12 Real Per Capita Health Expenditure	28
13 Per Capita Daily Calorie Availability	33
14 National Prevalence of Underweight Children	34
15 Infant Mortality Rates	36
16 Child Mortality Rates	37
17 Life Expectancy Rates	38
18 Vaccination Rates	40
19 Net Primary Enrollment Ratios	41
20 Primary School Student-Teacher Ratio	42
21 Illiteracy Rates	44
22 Indicators of Poverty and Social Welfare	45

¹Tables 1-23 contain data for Latin America and Tables 24-44 contain data for Sub-Saharan Africa.

23	Summary of Trends	46
24	Real Per Capita Private Consumption	53
25	Real Minimum Wages	54
26	Average Real Civil Service Salaries	55
27	Government Expenditure as a Percentage of GDP	59
28	Real Per Capita Government Expenditure	60
29	Education Expenditure as a Percentage of Government Expenditure	61
30	Health Expenditure as a Percentage of Government Expenditure	62
31	Trends in Government Expenditure Priority	63
32	Real Per Capita Education Expenditure	65
33	Real Per Capita Health Expenditure	66
34	Per Capita Daily Calorie Availability	71
35	National Prevalence of Underweight Children	72
36	Infant Mortality Rates	75
37	Child Mortality Rates	76
38	Life Expectancy Rates	78
39	Vaccination Rates	79
40	Net Primary Enrollment Ratios	81
41	Primary School Student-Teacher Ratio	82
42	Illiteracy Rates	84
43	Indicators of Poverty and Social Welfare	85
44	Summary of Trends	86
45	Summary of Trends - World Bank	99
46	Summary of Trends - Williamson	100
47	Summary of Trends - World Bank	104
48	Summary of Trends - USAID	105

49	Percentage of Diarrhea Episodes Treated with Oral Rehydration Therapy	111
50	Enrollment in Private Schools in Africa and Latin America	113
51	Number of Countries with and Without Deteriorating Indicators	123

Figure

1	Proportion of Households Earning a Monthly Income Below \$31 Per Person, 1985	50
---	--	----

EXECUTIVE SUMMARY

Two ideas about global poverty have become established doctrine in the past 15 years. The first is that the 1980s were a disaster for the poor in Latin America and Africa, a "lost decade" of deepening poverty and deteriorating social conditions. The second is that one important reason for this unhappy state of affairs was the adoption of market-oriented economic reforms — structural adjustment programs — by so many countries in these two regions. The so-called "social costs of adjustment," almost everybody came to believe, fell especially hard on the poor.

This report reviews the evidence on recent trends in poverty and social indicators to determine the empirical foundations for these beliefs. In what sense and to what extent did poverty spread and social conditions worsen? Have the poor in adjusting countries suffered more than their counterparts in countries that have not adopted reform programs?

Numerous conceptual and data problems bedevil all attempts to answer these large and complicated questions. Every statement can be challenged, every conclusion qualified, every generalization eroded by exceptions. One result: big and dramatic messages are often obscured by a mass of qualifications and by long disquisitions on data weaknesses.

In this study we try to avoid this trap by judicious simplification and by avoiding the strong urge to attach at every turn caveats about data and conceptual difficulties. The approach is straightforward. We assemble and sift available data on the measures or indicators of poverty and living conditions. Most of the numbers come from international agencies.¹ These data are often imperfect and contain many gaps, but have been carefully worked over for consistency and clarity of definition, and are for this reason the best available sources.

Three types or sets of data are examined: measures related to household income — headcount poverty (number or proportion of households with incomes below some poverty line), formal sector wage incomes, and consumption expenditure from national accounts data; public expenditure data, particularly spending on health and education, which is universally regarded as critically important for alleviating poverty; and indicators of social conditions — nutrition status as measured by calorie availability and prevalence of underweight children, child mortality and life expectancy, protection against disease, and primary school enrollment rates. These measures are particularly significant because of all available measures they are closest to representing social outcomes.

The findings from this study can be summarized as follows.

- Available income-based poverty measures show deterioration for Sub-Saharan Africa (SSA) but no clear trend for Latin America. But sparsity of data weakens these conclusions. After all, average per capita GDP fell by some 15 percent in Latin America over the 1980s, and by perhaps 25 percent in SSA. So headcount poverty trends should be more strongly negative for Latin America than our data show. That they do not seem to be so is probably because usable trend data exist for only 8 countries in Latin America; were the sample

¹ These agencies include the International Monetary Fund, the World Bank, the United Nations Educational, Scientific and Cultural Organization, the United Nations Development Programme, the Food and Agriculture Organization, and the United Nations Children's Fund.

larger it is highly likely that headcount poverty would show increases in many more cases. In any event, the numbers in absolute poverty increased over the decade in Latin America (as in Africa) given the poor performance of Brazil, which is home to so many of the region's poor.

- Public expenditure measures also were region-specific. In the majority of Latin American countries, education shares of government expenditure did not decline, and health shares actually improved. In Africa, health shares evidenced no real trend, falling and rising in roughly equal numbers of countries; education shares, however, clearly fell. Real education spending per capita fell in both Africa and Latin America in the majority of cases. Real public health spending fell more often than it was maintained in Africa, but in Latin America it rose in as many countries as it fell.
- Social indicators — the outcome measures — did not deteriorate or actually improved in the majority of countries in both regions, and they did so almost across the board: average calorie availability, child mortality rates, vaccination rates, primary school enrollment rates, and literacy rates all improved in most countries. The nutrition indicators were least positive; calorie consumption did not fall in a majority of African countries, but the absolute numbers of malnourished children and underfed people seem to have risen in the region as a whole.

According to these numbers, it is not therefore true that the 1980s were a lost decade of deteriorating social conditions in Latin America and Africa. We seem to have a paradox especially in Africa. Income indicators worsened in Africa, and probably worsened in Latin America, though the data do not show this. In any case, the number of people in absolute poverty in Latin America increased. Also in Latin America, the public expenditure measures are mixed. Yet the clear majority of social indicators showed an improvement, and none showed an overall decline. In Africa, the clear majority of income indicators and public expenditure measures are negative, yet, as in Latin America, none of the social indicators declined, and most improved.

The paradox is not easily explained. It may be that the social indicator data are wrong or irrelevant. However, while they may be soft, and they don't tell everything, they say a lot and are the best available. It's no accident that practically everyone uses them when they measure social conditions. Moreover, the income data may be less reliable than the "real" or "outcome" measures — the social indicators. The income data neglect the informalization of economies that took place over the 1980s, and hence systematically overestimate income declines. And declines in public expenditure almost surely overstate the deterioration in public service provision. This is so because education budgets in particular consist largely of salary costs, and the supply of teacher effort probably declined substantially less than the decline in real wages.

A second factor that is given great weight in some analyses is the lag effect — the fact that social indicators don't show quick changes in response to changed economic or policy environments. This is probably a part of the explanation, but there is no evidence that it is a major factor.

Most important are two other factors: the expansion of international assistance and private expenditures, which took up some of the slack left by withdrawal of the state in social sectors; and the spread of low-cost health interventions, such as oral rehydration therapy and especially vaccination against the main epidemic diseases. These undoubtedly had major effects on child mortality and on general health status. Much remains unexplained, nonetheless.

Analysis to this point has been concerned with national social performance irrespective of policy regime. What do the assembled data tell us about the social costs of adjustment? The question is attacked by comparing social indicators in countries that are classified as "adjusters" or "reformers" with those in countries that have adopted partial reforms or none at all.

The results indicate little difference in social performance between adjusting and nonadjusting countries. Although there is little or no evidence for relative improvement in adjusting countries, neither is there any general support for the argument that adjustment hurts the poor.

In several important senses, this is a victory for adjustment policies. First, the comparison captures the two groups of countries at different phases of the adjustment cycle. The nonadjusters are at a preadjustment phase, or in a condition of failed efforts to reform — in other words, in fiscal and external disequilibrium. But the adjusters have presumably begun to cut back public spending and straighten out the macroeconomic policy environment. One should therefore expect the social indicator trends to be worse for adjusters than for nonadjusters. The fact that by so many measures adjusting countries did not do worse than the nonadjusters is therefore reassuring for reformers.

Second, reforming countries tend to do better on growth, as is shown in the most recent World Bank assessment of African reforms. Faster growth means less poverty and improved social indicators, though this may not show up right away.

How can we explain the origin and persistence of the twin ideas of deteriorating living standards and harmful social impacts of adjustment despite their slender empirical underpinnings? One reason of course is that poverty as measured by the evolution of household income and expenditure did in fact increase, probably in many more countries than those for which data are available to make comparisons over the decade.

But there is more to it than this. These ideas arose early in the 1980s, well before much evidence was available regarding income trends and the impact of economic reform programs. The ideas were sponsored and spread by organizations and individuals deeply committed to the struggle against world poverty, whose writing tended to overgeneralize from selected cases and neglect or reject contrary evidence.

The accumulating evidence has been treated gingerly in recent writing, much of which tends to hedge and downplay the positive trends in social indicators and emphasize instead the continuing existence and even growth of extreme poverty in these regions. Many observers pussyfoot around the good news on social indicators — perhaps because the data are so messy, because the news is so contrary to established wisdom, or because they fear that trumpeting such good news may generate charges of insensitivity or complacency about the true poverty that continues to burden so much of mankind. But it is important to set the record straight, since these issues are at the heart of so much controversy about development strategies and about recent economic history.

CHAPTER ONE

INTRODUCTION

It is widely believed that the 1980s were a disaster for the poor in Latin America and Africa — a "lost decade" of deepened poverty and declining social conditions. There is a parallel belief that in those countries that undertook structural (market-oriented) policy reforms, the poor fared worse than other groups.

There are several reasons to expect that these perceptions of how the poor fared are an accurate reflection of Latin American and African social reality in the 1980s:

- The world recession of the early 1980s and the decade-long slowdown in economic growth hurt most of the economies in the Latin American and Caribbean (LAC) region, and in Sub-Saharan Africa (SSA).¹ After growing by 3.3 percent a year between 1971 and 1980, per capita GDP in the LAC countries fell by 1.2 percent a year between 1981 and 1990. The growth of the 1970s reduced poverty; the decline of the 1980s should have increased it. In SSA, per capita GDP has been in decline since the mid-1970s. Between 1980 and 1990 it fell by some 2.2 percent a year.²
- Debt burdens soared. LAC's total debt stock nearly doubled from more than \$240 billion in 1980 to \$445 billion in 1987, before declining slightly to \$434 billion in 1989. The region is home to 12 of the World Bank's 19 "severely indebted" countries; 85 percent of the region's population live in these indebted countries. In SSA, total external debt grew from \$23 billion in 1975-80 to more than \$135 billion in 1985-90.³ Heavy debt burdens and consequent servicing obligations sharply constrained the capacity to invest in long-term, poverty-reducing actions in sectors such as education and health; and
- Commodity price trends were generally unfavorable over most of the decade. Terms of trade in both regions in the 1980s were some 15 percent below their average level in the 1970s.

To these recession-related reasons to anticipate generalized increases in poverty and worsened social conditions for the poor have to be added the expected — often-decried — negative short-term impacts of economic stabilization and adjustment policies. More than half the countries in both regions (13 in LAC and over 30 in SSA) had International Monetary Fund (IMF)/World Bank structural adjustment loans in the 1980s. Cutbacks in public employment, subsidies, and bank credit, liberalization of markets, and reform of state enterprises can all impact negatively on the poor.

¹ Text references to "Latin America" include the Caribbean in their scope. "Sub-Saharan Africa" excludes the Republic of South Africa, unless otherwise specified.

² As recorded in *African Development Indicators, 1992*, United Nations Development Programme and World Bank, 1992, p. 31.

³ *Ibid.*, p. 159.

In fact, poverty did increase in the 1980s — though not by all definitions, and not worldwide; Asia has seen impressive reductions. In poverty measurement, conceptual problems are severe, and firm evidence about magnitudes is sparse. "Headcount poverty" — the number or proportion of households whose income or expenditure — is below some poverty line is particularly difficult to measure and especially to compare over time. In SSA only 2 countries (Ghana and Côte d'Ivoire) have such income data and the data points are close together. In LAC 13 countries have the requisite data points but only 8 have one from the early 1980s.⁴

The general conclusions of careful recent analyses of all available data are that the proportion of poor people in the developing world has fallen slightly during the 1980s; that the number of people in poverty has therefore grown at about the rate of population increase (2 percent per annum); and that poverty fell in East and South Asia and increased in Latin America and Africa.⁵ However, measures of human welfare other than those that are income- or consumption-based — that is, social indicators like calorie availability and child mortality — tell a different story; these indicators generally improved over the 1980s. The reasons for these paradoxical results is a central theme of this paper.

The coupled ideas — that social conditions were deteriorating in the Third World and that market-oriented economic reforms (structural adjustment programs) were punishing the poor — have their roots in many lines of thought and have appeared under diverse institutional auspices. Their most powerful and tireless propagator was UNICEF — the United Nations Childrens Emergency Fund; UNICEF reports and spokespeople helped to convince the intellectual and political community concerned with development problems that the welfare of the poor had truly deteriorated. They also were highly successful promoters of the notion that structural adjustment policies were bad for the poor.

In 1987, the UNICEF-sponsored book by G. Cornia, F. Stewart, and R. Jolly, *Adjustment with a Human Face*, elaborated through case studies the basic themes set out in 1984. The book argued forcefully that the "social costs of adjustment" — the negative impacts on people that followed from adoption of market-oriented policy reforms incorporated in World Bank and IMF programs — were considerable, and were being borne disproportionately by the poor.

This book had extraordinary impact. It was surely one of the most influential books of the decade, perhaps of many decades. Its basic arguments quickly became received doctrine. Not many months after its publication, the World Bank would pronounce mea culpas in public; its representatives, for example, pleaded guilty at a January 1988 conference in Khartoum to the charge that social costs and impacts on the poor had been neglected in the Bank's structural adjustment programs. Soon afterward the Bank introduced its Social Dimensions of Adjustment Program with United Nations Development Programme (UNDP) support.

The notion that there were inevitable social costs of adjustment spread rapidly. Many donor agencies incorporated the concept in their thinking and their programs. Some donors grumbled about their

⁴ One recent study states that only 18 countries worldwide have such data (S. Chen, G. Datt, and M. Ravallion, "Is Poverty Increasing in the Developing World," Policy Research Department, WPS 1146, World Bank, June 1993). Another World Bank study found 13 in Latin America alone, so there is some confusion here (George Psacharopoulos, et al., *Poverty and Income Distribution in Latin America and the Caribbean: The Story of the 1980s*, World Bank, 1993). See also, M. Lipton and M. Ravallion, "Poverty and Policy," WPS 1130, April 1993 (to appear as Chapter 42 in *Handbook of Development Economics*, Vol. 3, J. Behrman and T.N. Srinivasan, eds.)

⁵ Chen et al., 1993, p. 14.

having to pick up the pieces left by IMF/World Bank adjustment programs. For example, representatives of the European Development Fund, the aid agency of the European Community, spoke of their role as becoming that of "the social firemen of adjustment lending." Private voluntary organizations (PVOs), especially environmentalist groups, found the argument congenial and absorbed it wholesale.

UNICEF spokespeople attacked structural adjustment programs as insensitive to poverty concerns and partly responsible for deteriorating social conditions. Thus, UNICEF's Richard Jolly wrote in 1988, regarding the spread of poverty:

The 1980s will almost certainly be recorded by future development historians as a decade of rising poverty and malnutrition in many if not most countries of the world. Certainly this is true for the vast majority of countries in Africa and Latin America. . . . What has been happening in the majority of countries is a widespread and marked *deterioration* [our emphasis] in the human condition. Poverty and malnutrition are worsening, not merely persisting as for so long before. Nor, as often before, is it a matter of worsening poverty in some countries with improvements in others. The early 1980s have produced a strong, sustained, and systematic set of downward international pressures on the majority of developing countries, with the consequences that living standards have very seriously deteriorated.⁶

And the 1989 UNICEF report, *The State of the World's Children*, opens with the dramatic assertion: "Large areas of the world are sliding backward into poverty." Supporting evidence for these kinds of cosmic assertions remained very thin. But this did not prevent their widespread acceptance by the public at large as well as by the development community. The vision of a world sliding backward into poverty became the prevailing view of social reality in the late 1980s, along with the conviction that policy reforms hurt poor people. Both ideas are still deeply and widely held.

Important consequences have followed. The belief that poverty was deepening and that structural adjustment programs make the situation of the poor worse fueled the widespread uneasiness about market-oriented reforms and IMF type stabilization programs. It became one of the central tenets in the development thinking of environmental and other nongovernmental organizations (NGOs), which became in the 1990s the major opponents of policy lending and powerful advocates of cutbacks in funding for the World Bank and IMF.

The idea that policy lending hurt the poor more than other groups probably also contributed to the recent trend toward less adjustment lending, and probably also to a softening of lending terms, though this is difficult to prove. It generated the multitude of emergency aid programs aimed at cushioning the "social costs of adjustment" — programs grouped under the heading of social dimensions of adjustment. Pushed through hurriedly, these social safety net programs were frequently poorly conceived. In any case, the "adjustment with a human face" argument undoubtedly contributed to the greater basic needs orientation observable in aid policies in the 1990s.

Given the impact of these ideas, it is essential to ask: Are they true? Specifically, to what extent and in what sense is it true, as UNICEF spokesmen asserted and so many people believe, that the 1980s were ". . . a decade of rising poverty and malnutrition in . . . the vast majority of countries in Africa and Latin America . . . (marked by) . . . a widespread and marked deterioration of the human condition

⁶ From "A UNICEF Perspective on the Effects of Economic Crises and What Can be Done," in *Health, Nutrition, and Economic Crises* . . . , *ibid.*, p. 81.

...?" Is it also true that adoption of structural adjustment programs is a significant factor in explaining this immiseration of the poor? Put somewhat differently, did the poor in adjusting countries experience a more severe deterioration in living conditions than the poor in countries that did not adopt market-oriented economic reform programs?

These questions are addressed in this paper. The focus is on Latin America and Sub-Saharan Africa; this is where poverty is believed to have grown most in the 1980s. Indeed, in East Asia and Southeast Asia, where most of the people in the developing world live, impressive reductions in poverty occurred in the 1980s and continue into the 1990s.⁷

The approach is relentlessly empirical, and simple. We concentrate on the humdrum task of assembling, sifting, and assessing existing data, and extracting limited generalizations from them.⁸ Most of the data come from international organizations — the IMF Government Financial Statistics (GFS) and International Financial Statistics (IFS) yearbooks; assorted World Bank data; compendia of the Food and Agricultural Organization (FAO), World Health Organization (WHO), and the United Nations Education and Social Council (UNESCO); and some country data from case studies.

We review the evidence on headcount poverty and income distribution; on income-, expenditure-, or consumption-based welfare measures (per capita personal consumption from national accounts data, wages and employment); on public expenditures for health and education, which are particularly important for the poor; and on outcome measures — social indicators such as calorie availability and other nutrition measures, infant and child mortality, and primary school enrollments.

Our primary method of analyzing change over the 1980s for a given measure is to find the percentage difference between its averages for 1980-82 and 1987-89.⁹ Whenever possible, we also compare averages for 1987-89 and 1990-92 to assess trends into the early 1990s. Finally, we look at the overall change between the averages for 1980-82 and 1990-92. For all indicators, an increase is defined as + 4 percent or more, a decrease as - 4 percent or less, and no significant change as between + 3 and - 3 percent. This is an arbitrary cut-off point, but it is almost certainly within the indicators' margins of error.

The aggregate evidence is analyzed in two ways: first, without reference to country differences in policy evolution; and, secondly, in a comparative framework, to see whether the condition of the poor has evolved differently in countries that have adopted programs of structural adjustment and those that have not.

⁷ This by itself casts doubt on the argument that global poverty increased in the developing world as a whole during the decade.

⁸ We have benefited from several recent studies that have looked at many of the same questions, notably Psacharopoulos et al., 1993; Jacques van der Gaag, Elene Makonnen, and Pierre Englebert, "Trends in Social Indicators and Social Sector Financing," World Bank Staff Working Paper # 662, May 1991; Margaret Grosh, "Social Spending in Latin America: The Story of the 1980's," World Bank Discussion Paper # 106, 1990; and Dominique van de Walle, "Poverty and Inequality in Latin America and the Caribbean during the 70s and 80s: An Overview of the Evidence," Human Resources Division, Technical Department, Latin America and the Caribbean Region, The World Bank, September 1991.

⁹ Readers should note that all figures appearing in tables have been rounded for viewing ease. All results were calculated before rounding.

This is a tall order. The path to better understanding of what happened to the poor in these two regions is strewn with obstacles and pitfalls. It's not easy to define who the poor are — whose welfare we should study — nor to trace changes in their number. Data limitations are severe; although the data are more abundant than a few years ago, they still contain vast gaps and are generally soft. Indirect or proxy measures of welfare have to provide much of the evidence.

On top of this, serious conceptual and methodological problems bedevil all efforts to distinguish the impact of structural adjustment — for example, disentangling policy effects from other changes, dealing with the so-called "counterfactual" case (what might have happened in the absence of policy reform), taking into account long-term, postadjustment differences in performance, and deciding which countries are "reformers" and since when.

Nevertheless, the empirical evidence gives some clear and important messages that have not been sufficiently recognized.

- The decline in per capita GDP, stagnation in agricultural production (in SSA), and declining external terms of trade make it highly likely that the numbers of people below poverty lines (headcount poverty) increased in both regions over the 1980. But because comparable household surveys within the same country are scarce, few robust statements about the evolution of headcount poverty are possible, and fewer still about magnitudes of change.
- Although headcount poverty and most other income- or expenditure-based poverty measures show declines in average levels of welfare, review of social indicator changes (calorie availability, child mortality, vaccination coverage, primary school enrollment ratios) exhibits an opposite trend — by these measures of human welfare the 1980s definitely did not witness a general deterioration in the condition of the poor in Latin America and Africa.

Some countries did experience deterioration in some indicators, and, even within countries with good average indicators, poverty often persists on a large scale. Because the social indicators are national averages, improvements do not necessarily mean that the situation of the poor has improved. But because middle and upper classes already enjoy a relatively high standard of living, for most indicators it is extremely unlikely that improved national averages would not imply improvements for the poor. This is clearly the case in Latin America, but is true also for Africa. For this reason, the mostly positive outcome indicators contradict the prevailing generalizations concerning deepening poverty. By these data, the 1980s were not at all a "lost decade" in terms of betterment of the human condition.

With respect to the second issue — the social costs of adjustment — the evidence does not support the view that economic stabilization and policy reform efforts have hit the poor harder than other groups. At least three separate questions are at issue:

- Did the directly measured welfare of the poor worsen as a result of structural adjustment policies? To begin to answer this we would have to have income distribution data by income group, comparable over time. We would also need to know the changes in income- and expenditure-based welfare measures as well as of indicators of living standards. Given the sparsity of the necessary data, this kind of direct impact measurement is not possible for many countries.
- Did the directly measured welfare of the poor deteriorate more than that of other income groups? This is the sense of the proposition that the poor suffered "disproportionately." Answers are possible only for those few countries that have the requisite data.

sparsity of the necessary data, this kind of direct impact measurement is not possible for many countries.

- Did the directly measured welfare of the poor deteriorate more than that of other income groups? This is the sense of the proposition that the poor suffered "disproportionately." Answers are possible only for those few countries that have the requisite data.
- Did the indirectly measured welfare of the poor worsen more in adjusting countries than in those that have not adopted reform programs? This is possible to answer. Average national measures of social conditions or living standards can be compared between reforming and nonreforming countries. This is the approach followed here: comparison of income-based measures of poverty, of living standards, and of poverty-focused public expenditures in adjusting and nonadjusting countries during the 1980s.

The analysis reveals that the 1980s witnessed no tendency for a relative worsening of the poor's status in the adjusting countries. Most of the indicators tend to show the contrary — that the indicators show either no difference between reforming and nonreforming countries or a (slight) difference in favor of adjusting countries.

We proceed as follows. In Part One (Chapters Two-Four), the data for Latin America and the Caribbean are presented and discussed without reference to whether countries have adopted economic reform programs. Chapter Two considers income measures: headcount poverty estimates, both absolute and relative; average per capita consumption expenditure from national accounts data; and some scattered data on real wages. Chapter Three looks at public expenditures, and Chapter Four reviews outcomes by looking at social indicators or indirect measures of welfare — most importantly, nutrition status, child mortality rates, vaccination coverage, and primary school enrollment ratios.

Part Two (Chapters Four-Six) covers the same ground for Africa. Content is largely but not entirely the same as for Latin America, though it varies a little on some topics, mainly because information availability varies.

In Part Three the two regions are considered together. Chapter Eight addresses the social costs of adjustment issue — the question of whether social indicator performance was different in adjusting countries and nonadjusting countries. Chapter Nine considers the paradox of apparent increases in absolute poverty and negative trends in monetary indicators related to poverty, and physical indicators of social welfare that clearly have not deteriorated.

Chapter Ten summarizes the conclusions of the paper. It also addresses briefly the question of how the set of ideas about generalized deepening poverty, worsening social indicators, and harmful impacts of structural adjustment on the poor persists despite so so much contrary evidence.

PART ONE

LATIN AMERICA AND THE CARIBBEAN

CHAPTER TWO

POVERTY TRENDS: INCOME MEASURES

In this chapter we examine poverty indicators based on income measures. The most important is the direct indicator: the incidence of poverty, defined as households with incomes below some poverty line. The others are indirect: personal per capita consumption as derived from national accounts data, and real wages. In the discussion of trends in absolute poverty we consider briefly changes in income distribution.

This section attempts to answer the following question: Has there been a significant increase in the number and percentage of those who live in absolute poverty in Latin America and the Caribbean during the 1980s? And has income distribution shifted, with smaller shares going to the poorest groups?

TRENDS IN ABSOLUTE POVERTY

Although there is still a paucity of reliable poverty data for many countries, significant progress has been made in the last few years in data collection efforts for the LAC region. As a result, absolute poverty measures are not as tentative as they had to be only a few years ago. In particular, a recent World Bank study on poverty and income distribution in Latin America during the 1980s presents more comprehensive, consistent, and reliable poverty data than had been available before its publication.¹

Problems of Definition²

Most government and private analysts define poverty as a level of income that does not allow the purchase of some minimum basket of consumer goods. National definitions vary. Typically, countries distinguish between "extreme" or "absolute" poverty, and "critical" or "moderate" poverty. The most common approach to identifying the extreme poor is to fix a poverty line based on some estimate of a least cost, nutritionally adequate basket of common food items. The poverty line for moderate poverty is then calculated as some multiple of the extreme poverty line. The multiple is commonly 2 but can be as low as 1.25, as in Jamaica. It is meant to account for expenditures on basics such as clothing, shelter, and medical expenses.

¹ Psacharopoulos et al., 1993.

² Annex A reviews the most common terms and definitions encountered in the extensive literature on poverty and its measurement.

The **absolute poverty** line can make some slight claim to being objective, because of its link to nutritional requirements. In reality, however, it reflects country standards and preferences, and its content usually differs from actual consumption patterns:

- Estimates of minimum calorie requirements vary from 2,250 per adult equivalent (FAO/WHO measure, used in Mexico) to 2,900 (Costa Rica) and 3,000 (Colombia). Adult equivalence conversions that standardize children's nutritional requirements also vary.
- In Mexico, analysts have argued that the basic food basket is composed of foods that are more expensive than alternative foods that would be acceptable to the public (Levy, 1990).
- Because analysts in Jamaica feel that the food basket used in fixing the official poverty line overestimates the consumption needs of the poor, they fix the absolute poverty line at 80 percent of the value of the official basket.
- In Bolivia, when poverty is measured according to an International Labour Organization (ILO)-defined basic needs basket, 80 percent of households have incomes insufficient to cover 70 percent of the basket (extreme poor). The Government of Bolivia defines the extreme poor as households that cannot finance 30 percent of the cost of a basic basket of food items only.
- Brazil has fixed its absolute poverty line as a fraction of its minimum wage.
- The Government of Colombia determines poverty based on five shelter-related indicators. Any household lacking one of the indicators is judged "poor"; a household that lacks two or more is estimated to be in "misery."

The definition of **moderate poverty** is even more subjective and tends, in practice, to be more a measure of relative poverty. For instance, in Mexico, the market basket used to determine the moderate poor includes TV sets, refrigerators, and vacation costs. According to this poverty line, 80 percent of Mexico's population can be classified as poor.

Measures of the number of households in absolute poverty that are based on costs of "minimum baskets" thus contain much that is arbitrary. They are also extremely sensitive to the decisions as to where to locate the level of income that determines the poverty line, especially in countries with highly skewed income distributions. For example, a study in Brazil found that if the poverty line was raised by 20 percent, the population classified as poor increased by 50 percent.

Findings from the 1993 World Bank Report on Poverty and Income Distribution

In an effort to minimize the problems of definition, the authors of the recent World Bank study (Psacharopoulos et al., 1993) have developed a regional absolute poverty standard; the monetary value chosen as the poverty line has equal purchasing power across countries.³ For the first time, this allows for cross-country comparisons in the number and percentage of the poor.

³ For a detailed explanation of how this poverty line was derived, see pages 57-58 of Psacharopoulos et al., 1993.

In creating poverty estimates, the authors used 30 household surveys covering 18 LAC countries for certain years of the 1980s. Following a careful methodology, the poverty reference was chosen at \$60 per month in 1985 purchasing power parity (PPP) dollars. Their method is similar to the approach used in the *1990 World Development Report*; however, the poverty line derived in the World Bank study is higher than the WDR global poverty reference, reflecting the higher level of per capita income in the LAC region in comparison with the rest of the developing world.⁴

Data Limitations

Few reliable studies exist that allow an assessment of trends in absolute poverty over the decade. Although the authors of the 1993 World Bank study use 31 household surveys from a total of 18 countries, only 13 of the countries conducted surveys at two points during the 1980s. And of these, only 8 have data for the early and late 1980s. To enlarge their sample, the authors of the World Bank study allowed regional poverty levels to be based on a combination of survey data and regression model estimates for countries where income data are not available. Regional poverty estimates, therefore, must be interpreted with care, as the regression estimates are less robust than the survey results. Regression estimates are not used for analysis of individual countries in the main text of the 1993 World Bank study, although these estimates are included in its appendix.

Another limitation encountered in the data is inconsistent geographic and temporal survey coverage. Most surveys are based on national samples, but there are exceptions. Peru, in this analysis, covers only Lima. Argentina and Paraguay cover only Gran Buenos Aires and Gran Asuncion, respectively, and the surveys for Bolivia, Colombia, Ecuador, El Salvador, Honduras (1986), and Uruguay cover only urban areas. In the case of the later Bolivian and Colombian surveys, the number of urban areas was increased. The later Colombia survey includes an additional urban area. In general, the surveys from the late 1980s cover about 80 percent of the Latin American population, while the surveys for the early 1980s cover about 50 percent.

Differences in the kind and the degree of income reported in household surveys present other barriers to drawing conclusions about poverty trends. Some countries include only labor income, while others, such as Chile, Colombia, Guatemala, and Mexico, include in-kind income or the value of assets, such as housing. Consumption expenditure, rather than income, is used for Jamaica and Peru because their income data was unreliable. Although consumption is a fairly good proxy, its differences must be kept in mind when making comparisons.

Almost all household income surveys are subject to a fair degree of underreporting of income, whether from tax evasion efforts or simple oversight. This can cause poverty estimates to be highly biased in the upward direction. The World Bank study, therefore, adjusts the income data of the poverty analysis to correct for underreporting.⁵ In our analysis of income inequality later in this chapter, we use unadjusted income data, because the bias induced by underreporting tends to be small for this measure.

⁴ For purposes of intracountry analysis, the poverty lines determined by the World Bank study are not superior to country-specific poverty lines, which reflect countries' internal standards of poverty. But they *are* superior to country-specific poverty lines in that they allow intercountry comparisons not feasible with country-specific poverty references.

⁵ See Annex 9 of Psacharopoulos et al., 1993, for a complete description of the methodology followed.

An additional constraint to poverty analysis is the limited definition of poverty used in many studies. The World Bank report defines poverty only in terms of per capita household income. The authors acknowledge the weakness of this measure in that it does not include nonincome contributions to welfare, such as education, health, nutrition, and housing, and also does not address intrahousehold allocation of income/consumption, but they defend its selection on the grounds that household income has more accessible and reliable data.

Despite these limitations, the 1993 World Bank poverty study presents, by far, the best empirical analysis of the LAC region to date. Our discussion on poverty and income distribution trends, therefore, draws heavily on this study.

Changes in the Incidence of Poverty

Table 1 summarizes the information on trends in poverty. The main points that come out of the data are as follows:

- Of the 13 countries that conducted surveys in more than one period in the 1980s, 9 reveal a greater percentage of people below the \$60 poverty line in the later survey than in the early one, while 4 — Colombia (urban), Costa Rica, Paraguay (Asuncion), and Uruguay (urban) — show a decline in the percentage below the poverty line.
- Five of the 9 countries showing increasing poverty between the two surveys, however, have the earlier survey occurring quite late in the decade relative to our own definition of the early 1980s.⁶ In the cases of Bolivia and Honduras, the first survey was taken in 1986. Guatemala conducted the earlier survey in 1986-87, and the first survey in Peru was taken in 1985-86. Mexico's first was in 1984. Restricting our analysis to only the countries whose survey years conform to our definitions of the early and late 1980s yields a more balanced result. Colombia (urban), Costa Rica, Paraguay (Asuncion), and Uruguay (urban) show improvements in poverty, while Argentina (Buenos Aires), Brazil, Panama, and Venezuela show poverty increases.
- Trends in the percentage of the population below the extreme poverty line (\$30) followed exactly trends found using the \$60 line.

Overall, the World Bank study concludes that there was an increase in poverty in the LAC region during the 1980s. According to a combination of survey and regression results, the authors estimate that the poverty headcount index for the decade rose from 26.5 percent to 31.0 percent. Most of the poverty in the LAC region, however, is located in a few countries. In 1989, more than 45 percent of the poor in the region lived in Brazil, although Brazil's population is only one-third of the region's total. Another 10 and 9 percent of the poor lived in Mexico and Peru, respectively, and an additional 19 percent lived in smaller countries including Bolivia, El Salvador, Guatemala, Haiti, Honduras, and Nicaragua. Taken together, these countries contain more than 70 percent of the region's poor, although they constitute only 48 percent of the population. Therefore, because surveys for the early years of the decade exist only for Brazil, the data do not permit a strong conclusion that poverty increased in LAC over the decade of the 1980s. We can conclude, however, that it increased in the late 1980s relative to the mid 1980s.

⁶ For this measure, we have expanded our definition of the early 1980s to include 1979-1983, in order to accept more countries into our sample. All other references to the period in our report use the years 1980-1982.

TABLE 1
ABSOLUTE POVERTY

Country	Year	Poverty Headcount Index (% below \$60 poverty line)	Extreme Poverty Headcount Index (% below \$30 poverty line)
Argentina (Buenos Aires)	1980	3.0	0.2
	1989	6.4	1.6
Bolivia (urban)	1986	51.1	22.5
	1989	54.0	23.2
Brazil	1979	34.1	12.2
	1989	40.9	18.7
Colombia (Urban)	1980	13.0	6.0
	1989	8.0	2.9
Costa Rica	1981	13.4	5.4
	1989	3.4	1.1
Guatemala	1986-87	66.4	36.6
	1989	70.4	42.1
Honduras	1986	48.7	21.6
	1989	54.4	22.7
Mexico	1984	16.6	2.5
	1989	17.7	4.5
Panama	1979	27.9	8.4
	1989	31.8	13.2
Paraguay (Asuncion)	1983	13.1	3.2
	1990	7.6	0.6
Peru (Lima)	1985-86	31.1	3.3
	1990	40.5	10.1
Uruguay (Urban)	1981	6.2	1.1
	1989	5.3	0.7
Venezuela	1981	4.0	0.7
	1989	12.9	3.1

Source: Psacharopoulos, et al., 1993 (from household surveys)

The authors also conclude that poverty followed economic trends, rising with recession and falling with recovery. Economies that grew, such as Colombia and Costa Rica, consistently performed better in poverty measures than those that did not. Countries that failed to stabilize, such as Brazil and Peru, experienced greater increases in poverty.

According to the World Bank study, there is new evidence that the reforms and renewed growth after 1989 have led to a decrease in poverty levels in the LAC region. Because many countries were in a recession during 1989, some of the poverty estimates for that year do not capture the benefits of structural adjustment for those countries undergoing the process. The renewed growth has resulted in the decline of the headcount index in some countries, such as Chile and Venezuela, and in Argentina and Mexico poverty seems to be improving, although empirical data are not available.

TRENDS IN INCOME DISTRIBUTION

What happened to income distribution in the 1980s is less central to our inquiry than the question of what happened to absolute poverty levels. What concerns us most is whether the condition of the poor deteriorated in an absolute sense, as the conventional wisdom argues. That the rich may have garnered more of the income pie is interesting but less relevant for present purposes. The income distribution question *is* pertinent with respect to the question of whether the burdens of recession and adjustment fell more heavily on the poor than on the rich in the 1980s.

According to the data presented in the World Bank study, this appears to have been the case if one neglects strict definitions of early and late years of the decade. Table 2 shows data for 18 countries, of which 13 have data for two different periods of the decade. Some general conclusions emerge:

- When looking at the countries with more than one data point in the 1980s, income inequality (as measured by the Gini coefficient) worsened in 9 of the countries and improved in 4: Colombia (urban), Costa Rica, Paraguay (Asuncion), and Uruguay (urban).
- Of the 8 countries with data at the beginning and end of the decade (according to our definition), the same 4 countries as above show a lessening in income inequality while Argentina (Buenos Aires), Brazil, Panama, and Venezuela show income inequality becoming worse.
- The income share for the bottom quintile rose in all countries where income inequality declined, and dropped in all countries where income inequality increased. The income share of the top quintile rose when income inequality worsened and fell when income inequality improved.

Bearing in mind that 45 percent of the LAC region's poor live in Brazil, and income distribution worsened there, it is likely that income distribution worsened for the majority of the poor in the region as a whole over the 1980s. But as surveys of the early 1980s, by our definition, are not available for the other countries, which are known to contain most of the rest of the poor (Mexico, Peru, Bolivia, El Salvador, Guatemala, Haiti, Honduras, and Nicaragua), we cannot definitively conclude that income distribution worsened over the decade. We *can* say, however, that income distribution worsened in the late 1980s relative to the mid-1980s in these countries.

TABLE 2
INCOME DISTRIBUTION

Country	Year	Gini Coefficient	Income Share of Bottom Quintile
Argentina (Buenos Aires)	1980	0.408	5.3
	1989	0.476	4.2
Bolivia (Urban)	1986	0.516	3.9
	1989	0.053	3.5
Brazil	1979	0.594	2.6
	1989	0.633	2.1
Colombia (Urban)	1980	0.585	2.5
	1989	0.532	3.4
Costa Rica	1981	0.475	3.3
	1989	0.460	4.0
Guatemala	1986-87	0.579	2.7
		0.578	2.2
Honduras	1986	0.549	3.2
	1989	0.591	2.8
Mexico	1984	0.506	4.1
	1989	0.519	3.9
Panama	1979	0.488	3.9
	1989	0.565	2.0
Paraguay (Asuncion)	1983	0.451	4.9
	1990	0.398	5.9
Peru (Lima)	1985-86	0.428	6.2
	1990	0.438	5.7
Uruguay (Urban)	1981	0.436	4.9
	1989	0.424	5.4
Venezuela	1981	0.428	5.0
	1989	0.441	4.8

Source: Psacharopoulos, et al., 1993 (from household surveys)

The World Bank study concludes that income inequality trends may have been influenced by changes in the average level of per capita income. The countries that experienced a reduction in income inequality also experienced an increase in per capita income over the decade, while the countries that experienced an increase in income inequality saw per capita incomes decline. Following a similar pattern, poverty increased in those countries with declining per capita incomes, and fell in countries with rising per capita income.

The World Bank study also concludes that because most countries that registered a rise in inequality also experienced a fall in real per capita income, the poor in these countries were hurt disproportionately in terms of income during the 1980s. Again, this conclusion depends upon a loose definition of early and late years of the decade.

OTHER INCOME-BASED WELFARE MEASURES

Private Consumption

Private consumption is the market value of all goods and services purchased or received, including income in kind, by households and nonprofit organizations. It presents some problems as a measure of welfare because it can include residuals of various kinds, and because it is sensitive to public-private sector mixes; for example, a system where education is privately provided will have higher consumption but not necessarily higher welfare. It is nonetheless a common and useful measure of individual economic welfare, superior in some ways to per capita GNP. Table 3 presents information on trends in real per capita private consumption for the period 1980 to 1992.

During the 1980s, average real per capita consumption declined in about as many countries as it increased or stayed the same in Latin America. Of our sample of 21 countries with data, 11 saw a decline, 1 saw an increase, and 9 remained virtually unchanged. Nicaragua's drop was particularly severe: 56 percent.

Wages

Table 4 summarizes data on average and minimum wages. Minimum wages are received by only a small percentage of the labor force, but are used here as a proxy; they are sometimes a key rate in wage structures. A strong majority of the countries in the region saw a decline in average real wages during the decade. Of the 11 countries for which we have data, 2 saw an increase, 6 saw a decrease, and 2 saw essentially no change. The Brazilian data, split between Rio de Janeiro and Sao Paulo, shows a decline in the former and an increase in the latter.

The story of minimum wages in the region is even more severe. Of the 11 countries with data, real minimum wages rose in 2, declined in 8, and stagnated in 1.

Taken together, the available evidence on wage trends in the LAC region points to a deterioration in wage levels compared with the early 1980s.⁷

⁷ It should be noted that wages of household heads are only one source of household income. There is much evidence that other household members enter the labor force when breadwinner earnings fall and other sources of income are sought.

TABLE 3

REAL PER CAPITA PRIVATE CONSUMPTION, INDEXED
1980=100

	Average 1980-82	Average 1987-89	Average 1990-91	% change (80-82)-(87-89)	% change (87-89)-(90-91)	% change (80-82)-(90-91)
Argentina	95	98		3		
Bolivia	95	81	81	-14	-1	-14
Brazil	97	91	88	-7	-3	-10
Chile	101	97	112	-4	15	11
Colombia	102	102	103	0	1	1
Costa Rica	89	86	90	-3	4	1
Dominican Republic	96	96	97	0	0	1
Ecuador	103	109	109	5	1	6
El Salvador	95	96	105	0	10	11
Guatemala	99	87	88	-12	2	-11
Haiti	98	83	70	-15	-16	-29
Honduras	101	94	94	-7	0	-7
Jamaica	104	92		-11		
Mexico	99	94	101	-5	8	3
Nicaragua	91	40		-56		
Panama	99	98	101	-1	2	1
Paraguay	104	104	108	0	4	4
Peru	99	101	94	2	-7	-5
Trinidad & Tobago	115	91	91	-21	0	-21
Uruguay	97	91	97	-6	7	0
Venezuela	104	108	115	3	7	10

SOURCE: INTERNATIONAL MONETARY FUND, INTERNATIONAL FINANCIAL STATISTICS (IFS) YEARBOOK, VARIOUS YEARS

TABLE 4

AVERAGE REAL WAGES, INDEXED
1980=100

	Average 1980-82	Average 1987-89	Average 1990-92	% change (80-82)-(87-89)	% change (87-89)-(90-92)	% change (80-82)-(90-92)
Argentina	90	91	77	1	-15	-14
Bolivia	94	65	81	-30	25	-13
Brazil-Rio	111	103	94	-7	-9	-15
Brasil-Sao Paulo	104	153	132	48	-14	28
Chile	105	99	110	-5	11	5
Colombia	103	119	115	16	-3	12
Costa Rica	86	98	104	15	6	21
Mexico	101	73	82	-28	13	-19
Paraguay	101	102	107	1	5	6
Peru	105	73	40	-30	-45	-62
Uruguay	104	76	73	-27	-4	-29
Venezuela	97	61	54	-36	-12	-44

SOURCE: CEPAL, EXCEPT FOR COSTA RICA (ZUVEKAS, 1992).

REAL MINIMUM WAGES, INDEXED
1980=100

	Average 1980-82	Average 1987-89	Average 1990-92	% change (80-82)-(87-89)	% change (87-89)-(90-92)	% change (80-82)-(90-92)
Argentina	99	86	47	-13	-45	-52
Bolivia	100	38	31	-62	-18	-69
Brazil-Rio	104	71	56	-31	-21	-46
Chile	109	74	95	-31	27	-13
Colombia	102	111	105	9	-6	3
Ecuador	88	54	33	-39	-39	-63
Mexico	97	56	44	-42	-21	-54
Paraguay	101	132	124	31	-6	24
Peru-Lima	90	46	18	-49	-60	-80
Uruguay	102	84	64	-17	-24	-37
Venezuela	90	91	57	1	-37	-36

SOURCE: CEPAL

Unemployment

Table 5 shows trends in unemployment data. Of the 12 countries for which we have data spanning the entire decade, 6 countries evidenced rising unemployment rates, 5 evidenced falling rates, and 1 barely changed. Brazil, Chile, Costa Rica, Mexico, and Peru all experienced a significant decline in unemployment over the decade, ranging from 15 percent, in the case of Costa Rica, to 50 percent in Brazil. This evidence leads to the conclusion that unemployment rose and fell in about the same number of countries over the decade.

TRENDS IN THE EARLY 1990s

We now examine the emerging trends in the 1990s. Although data availability for these years varies considerably in coverage (between 11 and 18 countries), some general tendencies are evident.

Relative to the late 1980s, the majority of the measures register no general deterioration in the early 1990s. Real per capita consumption improved in more countries than it worsened, but the majority of countries saw virtually no change. Unemployment improved in the majority of countries, and average wages improved in about the same number of countries that it worsened. Minimum wages, on the other hand, clearly deteriorated.

Compared with the early 1980s, however, most measures deteriorated in the clear majority of countries. Of particular severity, minimum wages improved in only 1 of 11 countries with data. Real per capita private consumption was the only indicator that did not deteriorate in the majority of cases.

SUMMARY

Only a few firm general conclusions about the evolution of poverty can be drawn from these data, given their limited scope and their frequent ambiguity. Headcount poverty almost surely increased in Latin America and the Caribbean in the 1980s. Income per capita fell over the decade and terms of trade declined, so it would be surprising if poverty did not increase. The available data, however, do not reveal many strong trends toward deepened poverty. Data for most indicators are available for only about half the countries of the region. They indicate the following:

- By looking only at the countries that fall into our definition of early and late years of the 1980s, absolute and relative poverty increased in the same number of countries that it decreased. However, poverty increased and income distribution worsened in the late 1980s compared with the mid-1980s in the majority of the countries.
- Real per capita private consumption declined in about as many countries as it increased or stayed the same over the 1980s. Of 21 countries with data, only 1 increased consumption over levels in the early 1980s; 11 saw declining consumption and 9 remained the same.
- Real wages worsened over the 1980s. Real average and minimum wages rose in only 2 of 11 countries with data.
- Unemployment rates evidenced no real trend. They rose and fell in about the same number of countries.

TABLE 5

URBAN UNEMPLOYMENT RATES

% OF URBAN LABOR FORCE

	Average 1980-82	Average 1987-89	Average 1990-92	% change (80-82)-(87-89)	% change (87-89)-(90-92)	% change (80-82)-(90-92)
Argentina	4	7	7	57	6	66
Bolivia	8	10	8	29	-20	4
Brazil	7	4	5	-50	39	-30
Chile	15	10	7	-35	-29	-54
Colombia	9	11	10	21	-6	13
Costa Rica	7	6		-15		
Ecuador	6	8	7	25	-3	22
Guatemala		9	6		-27	
Honduras		9	7		-20	
Mexico	4	3	3	-20	-15	-32
Paraguay	5	5	6	1	9	10
Peru	8	7	7	-15	3	-12
Uruguay	9	9	9	4	2	6
Venezuela	7	9	10	30	4	35

SOURCE: CEPAL, EXCEPT FOR COSTA RICA (HORTON, KANBUR, AND MAZUMDAR, 1990)

CHAPTER THREE

TRENDS IN PUBLIC EXPENDITURES

In this chapter we focus mainly on expenditures for education and health. These are of special importance for the poor: better health and wider access to education are major instruments of poverty reduction. As noted earlier, many observers have feared that recession and economic stabilization and adjustment programs would result in cutbacks in public spending in these social sectors, with harsh negative effects on the poor. To put social sector spending in context, we begin with a brief review of trends in total public expenditure.

TOTAL PUBLIC EXPENDITURES¹

All types of public expenditure can affect the poor. Infrastructure and urban services, agricultural research and extension, housing, credit, and many other expenditure items have obvious impacts on the poor's income earning capacity and welfare. For reasons suggested above, most treatments of the impact of government expenditure on the poor focus exclusively on education and health: these are human-capital-creating expenditures that are critical in equipping the poor to climb out of poverty.

Shares of Government Spending in GDP

Throughout the 1980s, debate raged over the appropriate size and role of the public sector. In many countries, expenditures at levels prevailing in the late 1970s and early 1980s were clearly unsustainable; they involved run-downs of reserves and debt accumulation that could not endure. In many cases, also, efforts were made to reduce inefficient or unaffordable subsidies and to increase the effectiveness of public expenditures.²

Significant reduction in the role of the state, measured by expenditure to GDP ratios, should therefore be observable in the data for the 1980s. As shown in Table 6, the role of the state has indeed declined in the majority of LAC countries. Of the 18 countries with data, only 3 registered increases in the share of expenditure in GDP. Fifteen registered declines.

¹ All aggregate public expenditure figures in this chapter are given net of interest payments, unless indicated otherwise. Annex D-8 gives data on interest payments over the decade.

² Food subsidies are usually justified as a mechanism for protecting the buying power of low-income groups. In practice, they achieve this objective partially and imperfectly, and often at high cost. Higher-income groups, because of their greater consumption levels, frequently receive the lion's share of the benefits of subsidies. In recent years, countries have worked to target subsidies more precisely. Information on progress is hard to find. It is less difficult to find estimates of costs of subsidies to governments: in Mexico, for example, the total cost in 1989 of public nutrition interventions was US\$1.4 billion, of which US\$900 million went to untargeted subsidies. The World Bank estimated that more than 80 percent of the value of the general subsidies went to families earning more than 1.5 times the minimum wage.

TABLE 6

GOVERNMENT EXPENDITURES (NET OF INTEREST) AS A PERCENTAGE OF GDP

	Average 1980-82	Average 1987-89	Average 1990-92	% change (80-82)-(87-89)	% change (87-89)-(90-92)	% change (80-82)-(90-92)
Argentina	19	15		-23		
Bolivia	12	11	14	-4	23	18
Brazil	18	9	12	-48	32	-31
Chile	30	23	19	-24	-16	-36
Colombia	14	12		-9		
Costa Rica	20	24	23	20	-5	14
Dominican Republic	15	16	11	12	-32	-24
Ecuador	14	13	11	-7	-19	-25
El Salvador	17	10	9	-40	-12	-47
Guatemala	14	10		-29		
Haiti	18					
Jamaica	39					
Mexico	19	12	10	-39	-17	-49
Nicaragua	35	39		10		
Panama	28	26	25	-8	-2	-9
Paraguay	11	8	8	-23	3	-21
Peru	15	9	9	-41	3	-39
Trinidad & Tobago	36	31		-14		
Uruguay	25	24	25	-4	5	0
Venezuela	25	23	22	-7	-7	-13

SOURCE: INTERNATIONAL MONETARY FUND (IMF), GOVERNMENT FINANCIAL STATISTICS (GFS) YEARBOOK, VARIOUS YEARS

Real Per Capita Public Expenditures

A distinct negative trend is evident in real per capita public expenditures net of interest payments (see Table 7). Of 18 countries with data in the early and late 1980s, only 2 increased per capita public expenditures. Fourteen showed a decline and 2 showed essentially no change. Some of the declines were severe: 48 percent in Peru, 45 percent in Mexico and El Salvador, and around 41 percent in Guatemala, Trinidad, and Tobago.³

SOCIAL SECTOR EXPENDITURES

Three measures are relevant for assessing whether the evolution of social sector expenditures has been harmful to the poor: changes in real per capita sector expenditure, changes in the efficiency with which sectoral resources are used, and changes in their equity impact — whether the intrasectoral allocations shift in favor of the poor. Data on the sector's share of total expenditure are given much attention in the literature. They are helpful mainly for the insights they give as to government priorities, though they also help in the analysis of whether the poor are hurt disproportionately by recession, or by adjustment-induced expenditure reallocations.

We begin with some information on shares, and then consider real per capita spending.

Shares

During the 1980s, education spending shares did not deteriorate in the majority of countries (Table 8). Of the 14 countries with data, 6 registered an increase in spending shares, 5 registered a decline, and 3 remained essentially unchanged. The increase of 133 percent in Brazil is particularly noteworthy.

Health sector expenditure shares clearly increased during the 1980s (Table 9). Of the 13 countries for which we have data covering the early and late years in the decade, only 2 experienced a decreasing trend. Eight increased shares and the remaining 3 saw no significant change.

These results illustrate changes in government priority given to the social sectors over the decade. Table 10 summarizes the shares data in terms of government priority. A plus indicates an increasing government expenditure share, and thus, an increasing government priority. A minus indicates a declining share, and therefore, a reduction in government priority. A zero indicates that government priority remained constant. Overall, by the end of the 1980s, the education sector showed no evidence of having become a lesser priority, and the health sector clearly became a greater priority.

³ It should be noted that this does not mean that per capita service delivery declined to the same extent. Most of the drop in real spending is a result of lower real salaries; output in the public sector declined only to the extent that employee efficiency declined. We are grateful to Clarence Zuvekas for this point.

TABLE 7

REAL PER CAPITA GOVERNMENT EXPENDITURE (NET OF INTEREST), INDEXED.
1980=100

	Average 1980-82	Average 1987-89	Average 1990-92	% change (80-82)-(87-89)	% change (87-89)-(90-92)	% change (80-82)-(90-92)
Argentina	77	55		-29		
Bolivia	86	66	81	-23	23	-6
Brazil	97	82	41	-16	-50	-57
Chile	106	95	90	-11	-5	-15
Colombia	107	106		-1		
Costa Rica	82	95	94	15	-1	14
Dominican Republic	91	100	64	10	-36	-30
Ecuador	112	95	78	-15	-18	-30
El Salvador	94	52	47	-45	-10	-50
Guatemala	101	60		-40		
Haiti	98					
Jamaica	97					
Mexico	125	68	59	-45	-14	-53
Nicaragua	128	120		-6		
Panama	107	90	86	-16	-4	-20
Paraguay	110	79	85	-28	7	-23
Peru	93	49	41	-48	-16	-56
Trinidad & Tobago	125	73		-41		
Uruguay	114	110	117	-3	6	3
Venezuela	119	101	98	-15	-3	-18

SOURCE: GFS AND IFS YEARBOOKS, VARIOUS YEARS

TABLE 8

EDUCATION EXPENDITURE AS A PERCENTAGE OF GOVERNMENT EXPENDITURE (NET OF INTEREST)

	Average 1980-82	Average 1987-89	Average 1990-92	% change (80-82)-(87-89)	% change (87-89)-(90-92)	% change (80-82)-(90-92)
Argentina	9	9		1		
Bolivia	30	24	19	-20	-20	-36
Brazil	4	10	10	167	-6	152
Chile	15	13	14	-16	11	-7
Colombia	20					
Costa Rica	26	21	22	-18	2	-16
Dominican Republic	15	10	11	-35	8	-30
Ecuador	32	25	25	-21	-2	-22
El Salvador	19	19	16	-3	-13	-15
Guatemala	9	22		152		
Mexico	19	23	25	20	10	32
Panama	15	20	19	33	-9	20
Paraguay	13	13	14	4	7	12
Peru	20	49		140		
Uruguay	8	8	8	2	-9	-7
Venezuela	19					

SOURCE: GFS YEARBOOK, VARIOUS YEARS

TABLE 9

HEALTH EXPENDITURE AS A PERCENTAGE OF GOVERNMENT EXPENDITURE (NET OF INTEREST)

	Average 1980-1982	Average 1987-89	Average 1990-92	% change (80-82)-(87-89)	% change (87-89)-(90-92)	% change (80-82)-(90-92)
Bolivia	9	8	5	-2	-41	-42
Brazil	9	16	20	84	23	126
Chile	7	8	11	13	43	61
Colombia	4					
Costa Rica	33	27	30	-20	14	-9
Dominican Republic	11	11	15	1	37	39
Ecuador	8	12	15	44	26	81
El Salvador	9	8	9	-8	9	0
Guatemala	8	11		37		
Mexico	2	3	3	47	10	61
Panama	16	21	24	29	13	46
Paraguay	4	4	5	2	17	19
Peru	7	9		35		
Uruguay	4	5	5	20	5	26
Venezuela	9					

SOURCE: GFS YEARBOOK, VARIOUS YEARS

TABLE 10
TRENDS IN GOVERNMENT EXPENDITURE PRIORITY
(1980-82) - (1987-89)

KEY:

+ = GREATER PRIORITY

0 = SAME PRIORITY

- = LESSER PRIORITY

Country	Education	Health
Argentina	0	
Bolivia	-	0
Brazil	+	+
Chile	-	+
Costa Rica	-	-
Dominican Rep	-	0
Ecuador	-	+
El Salvador	0	-
Guatemala	+	+
Mexico	+	+
Panama	+	+
Paraguay	+	0
Peru	+	+
Uruguay	0	+

SOURCE: TABLES 8 AND 9.

Real Per Capita Expenditure

Real per capita expenditure on education fell everywhere except in 3 countries (Table 11). It remained essentially constant in 1 country and declined in 10. In many countries the declines were more than 25 percent.

The trend in real per capita health expenditure was mixed (Table 12). Of 13 countries with data spanning the decade, 7 showed a decline in real per capita health expenditure, and 5 an increase. Costa Rica's spending did not change.

TRENDS IN THE EARLY 1990s

Data for the 1990s are available for between 11 and 13 countries. Compared with the late 1980s, declines are evident for the share of government expenditure in GDP, real per capita government expenditure, and real per capita education expenditure. Real per capita health expenditure and health shares increased, and education shares increased in about as many countries as it declined. Relative to the early 1980s, declines were apparent in the share of government expenditure in GDP, real per capita government expenditure, education shares, and per capita education expenditure. Increases were registered for health shares and real per capita health expenditure.

TABLE 11

REAL PER CAPITA EDUCATION EXPENDITURE, INDEXED
1980=100

	Average 1980-82	Average 1987-89	Average 1990-91	% change (80-82)-(87-89)	% change (87-89)-(90-91)	% change (80-82)-(90-91)
Argentina	85	69		-19		
Bolivia	98	61	62	-38	2	-37
Brazil	172	385	268	124	-30	56
Chile	96	72	71	-25	0	-26
Costa Rica	101	96	95	-5	-1	-6
Dominican Republic	94	68	47	-28	-31	-50
Ecuador	95	68	55	-29	-19	-42
El Salvador	100	54	44	-45	-20	-56
Guatemala	76	112		47		
Mexico	96	64	61	-33	-5	-36
Panama	99	110	96	11	-13	-3
Paraguay	102	78	89	-23	13	-13
Peru	90	58		-36		
Uruguay	103	102	99	-1	-3	-4
Venezuela	96					

SOURCE: GFS AND IFS YEARBOOKS, VARIOUS YEARS

TABLE 12

REAL PER CAPITA HEALTH EXPENDITURE, INDEXED
1980=100

	Average 1980-1982	Average 1987-89	Average 1990-91	% change (80-82)-(87-89)	% change (87-89)-(90-91)	% change (80-82)-(90-91)
Bolivia	59	41	18	-30	-56	-69
Brazil	98	149	140	53	-6	43
Chile	98	98	125	0	28	27
Costa Rica	86	80	98	-7	23	14
Dominican Republic	97	107	94	11	-12	-2
Ecuador	107	128	135	20	5	27
El Salvador	89	45	43	-49	-4	-51
Guatemala	77	63		-19		
Mexico	95	80	76	-16	-5	-20
Panama	112	121	131	8	8	17
Paraguay	120	89	110	-25	23	-8
Peru	94	36		-61		
Uruguay	92	107	121	17	12	32
Venezuela	106					

SOURCE: GFS AND IFS YEARBOOKS, VARIOUS YEARS

SUMMARY

Four trends characterize public spending in the LAC region during the 1980s:

- The state presence, measured by public expenditure to GDP ratios, shrank significantly in the majority of countries (15 of 18). Comparable declines occurred in real per capita public spending, which was lower in the late 1980s than in 1980-82 in 14 of 18 countries.
- Social sector shares of expenditure experienced no general decline over the decade. In education, shares rose or remained the same about as frequently as they fell. Health shares rose in 8 of 13 countries with data, and declined in only 2.
- Real education spending per capita nonetheless declined in 10 of 14 countries. Health spending in real terms declined in about as many countries as it improved or stayed the same.

These trends continued into the early 1990s with few changes. Between 1987-89 and 1990-92, health shares rose in almost all countries, while education shares rose and fell in an equal number of cases. But real education spending per person fell in the majority of countries. Per capita health spending did better; it rose in more countries than it fell.

CHAPTER FOUR

OUTCOMES: SOCIAL INDICATORS AND WELFARE MEASURES

Up to now the analysis has focused on inputs. The income and expenditure measures of poverty — how household income evolved relative to some poverty line, and how private consumption and real wages have changed — are close to but not the same as outcomes. Outcome indicators tell how people have fared, measured by the ends of economic activity: are they living longer, are they and their children better protected against disease, are they better fed, do they enjoy greater access to opportunity as measured, say, by school enrollment ratios?

To seize these realities we would have to have direct data on trends in outcome measures for the poor. But these usually do not exist. To get some sense of trends and performance, then, we are forced to work with national averages. Implicit in the use is the assumption that changes in average national outcomes — either positive or negative — will generally reflect changes in the status of the more vulnerable, lower income groups. This is based on the further assumption that at all stages of development, better-off groups are already consuming adequate calories, vaccinating their children, experiencing low child mortality rates, placing their children in schools, and so on.

We consider in turn trends in the following indicators: nutritional status, infant mortality rate, child mortality rate, life expectancy, vaccination coverage, primary school enrollment ratios, student-teacher ratios, and illiteracy rates.

NUTRITIONAL STATUS

Numerous indicators are used to measure nutritional status, but three are most common: calorie availability or calorie intake, the prevalence of underweight children, and the proportion of the population underfed. All have grave deficiencies — weak underlying data, limited and probably biased sampling, and profound conceptual problems. This makes for extremely large margins of error for calorie-based measures, even for a single point estimate, errors that are surely multiplied in deriving estimates of changes over time.¹

These problems arise with greater severity in Sub-Saharan Africa than in LAC, and are therefore discussed more fully when we consider the evolution of nutritional indicators there (Chapter Seven). In Latin America, all the available indicators point in the same direction — that of general improvement in nutritional status with deterioration occurring in very few countries during the 1980s. Magnitudes may be an issue, but the trend is not.

Calorie Availability

Per capita calorie availability is viewed widely as a poor indicator because, among other deficiencies, it rarely indicates distribution by income levels, regions, or within households. But it offers the benefit of wide coverage, and provides insights on trends in food availability.

¹ See, for example, Michael Lipton, "Poverty, Undernutrition and Hunger," World Bank Staff Working Paper # 597, 1983.

Table 13 shows calorie availability data during the 1980s as given by four sources: the World Bank BESD Data Tapes, FAO Production Yearbook, FAO Agrostat, and the U.N. Statistical Yearbook. The differences in calorie availability given for the same country for a given period of time are particularly striking, and provide a good illustration of the indicator's general unreliability. Nevertheless, a trend emerges: irrespective of the data set used, the majority of LAC countries saw no decline in calorie availability over the decade. The least favorable data set, that from the U.N. Statistical Yearbook, shows calorie availability declining in 9 of 21 countries. The World Bank and the FAO Agrostat figures, as the most favorable, indicate that calorie availability declined significantly in only 3 of 21 countries.

Prevalence of Underweight Children²

The prevalence of underweight children is the indicator of choice for determining changes in the nutritional status of the poor. It is synonymous with child malnutrition. Because it tracks the nutritional condition only of 0-4-year-old children, it captures short-term changes in the environment. However, surveys are infrequent and often not completely comparable. Twelve countries have survey data that meet United Nations' quality standards and definitions: established in the Administrative Committee on Coordination, Subcommittee on Nutrition's Second Report on the World Nutrition Situation, and have these data for two points of time near the beginning and end of the 1980s. For 7 of the 12 countries, one or more of the survey dates fall outside of the 1980s (Table 14).

Overall, the survey results are unambiguous: in no country did the prevalence of underweight children increase by significant percentage points. Child malnutrition clearly declined in 9 of the 12 countries with data, and in 3 — Chile, Nicaragua, and Peru — there was no significant change. The generality of the improvement presents an extraordinary contrast to the claims of nutritional deterioration put forward with such certainty by many observers only a few years ago.

Proportion of Underfed People

This is an FAO concept, defined as the number (or percentage) of people whose average annual food consumption falls below the intake necessary to support light physical activity. Estimates of its magnitude and evolution differ. The U.N. ACC/SCN 1992 report on world nutrition states that 12-15 percent of the LAC region's people are underfed by the FAO definition and that this percentage didn't change in the 1980s. This implies a likely increase in *numbers* of underfed, given the larger size of the population.

But how these numbers are arrived at is not altogether transparent, and the authors of the report stress their tentative character.³ Other studies find higher levels. For example, according to one World

² More precisely, this refers to low weight for age. Low weight for age is caused by two phenomena, acting alone or in combination. The first is "stunting" (or low height for age), which is a sign of chronic malnutrition. The second is "wasting" or low weight for height, which indicates transitory malnutrition.

³ United Nations, ACC/SCN, *Update on the Nutrition Situation: Recent Trends in Nutrition in 33 Countries*, Geneva. United Nations Administrative Committee on Coordination - Subcommittee on Nutrition, January-February 1989, Volume II, pp. 111-114.

TABLE 13

PER CAPITA DAILY CALORIE AVAILABILITY

	A		B		C		D		A	B	C	D
	World Bank BESD Data Tapes		FAO Production Yearbook		FAO Agrostat		FAO in UN Stastical Yearbook		% change	% change	% change	% change
	1980-82	1987-89	1979-81	1987-89	1980	1990	1980	1990	(80-82)-(87-88)	(79-81)-(87-89)	80-90	80-90
Argentina	3339	3138	3187	3110	3260	3113	3202	3075	-6	-2	-5	-4
Bolivia	2157	2125	2092	1968	2078	1916	2091	1982	-1	-6	-8	-5
Brazil	2583	2687	2703	2722	2631	2751	2735	2723	4	1	5	0
Chile	2705	2597	2670	2553	2628	2581	2657	2481	-4	-4	-2	-7
Colombia	2501	2504	2489	2571	2512	2598	2424	2492	0	3	3	3
Costa Rica	2636	2783	2566	2791	2612	2808	2564	2712	6	9	8	6
Dominican Republic	2200	2406	2254	2342	2333	2450	2299	2297	9	4	5	0
Ecuador	2128	2416	2297	2518	2054	2531	2298	2410	14	10	23	5
El Salvador	2138	2352			2156	2317	2318	2306	10		7	0
Guatemala	2115	2318	2125	2229	2214	2235	2130	2254	10	5	1	6
Haiti	1928	2067	2024	2011	1902	2013	2035	1987	7	-1	6	-2
Honduras	2152	2147	2197	2229	2184	2247	2132	2259	0	1	3	6
Jamaica	2551	2602	2623	2622	2583	2609	2677	2527	2	0	1	-6
Mexico	2948	3123	3014	3048	2903	3052	3010	2986	6	1	5	-1
Nicaragua	2248	2367			2320	2265	2319	2214	5		-2	-5
Panama	2366	2496	2245	2537	2324	2539	2269	2291	6	13	9	1
Paraguay	2815	2632	2781	2755	2777	2757	2624	2644	-6	-1	-1	1
Peru	2162	2276	2203	2244	2162	2186	2078	1890	5	2	1	-9
Trinidad & Tobago	2892	2874	2925	2913	2873	2853	2995	2721	-1	0	-1	-9
Uruguay	2819	2769	2772	2697	2811	2653	2882	2678	-2	-3	-6	-7
Venezuela	2613	2557	2670	2620	2650	2582	2711	2383	-2	-2	-3	-12

SOURCE: World Bank BESD Data Tapes; FAO Production Yearbook, 1991; FAO Agrostat; and UN Statistical Yearbook

BEST AVAILABLE DOCUMENT

TABLE 14
NATIONAL PREVALENCE OF UNDERWEIGHT CHILDREN

Country	Survey Year	% Children Underweight (2)	Trend
Bolivia	1981	15	Falling
	1989	11	
Brazil	1975	18	Falling
	1989	7	
Chile	1982	1	Stable
	1986	3	
Colombia	1980	17	Falling then Stable
	1986	10	
	1989	10	
Costa Rica	1982	6	Falling
	1992	2	
El Salvador	1975 (1)	22	Falling
	1988	16	
Guatemala	1980	44	Falling
	1987	29	
Jamaica	1978	15	Stable then Falling
	1985	15	
	1989	7	
Nicaragua	1982	11	Stable
	1992	12	
Peru	1975	17	Falling then Stable
	1984	10	
	1991/92	10	
T&T	1976	16	Falling
	1987	6	
Venezuela	1982	10	Falling
	1987	6	

NOTES:

(1) Rural Sample

(2) < -2 standard deviations weight for age (0-59 months)

SOURCE: ACC/SCN 1993

Bank study that used FAO data to construct an index of malnutrition, Latin America enjoyed a calorie surplus in the mid-1980s, with the exception of Bolivia, Peru, Haiti, and Central America. Even by the most unfavorable estimates — those in the UN/ACC/SCN 1992 report — the proportion of underfed people did not rise in the 1980s; it fell in the first part the decade, then rose or stabilized between 1985-1990. By this measure, no generalized deterioration is visible.

INFANT MORTALITY RATES

The infant mortality rate (IMR) is defined as the number of infants between 0 and 1 years of age who die for every 1,000 live births. Infant mortality is a good indicator of overall living standards, but its main advantage is its wide coverage and availability. The data come from the World Bank *Social Indicators of Development* database.

Table 15 shows trends for infant mortality in 22 countries in the LAC region. The trend is unmistakable: infant mortality rates declined significantly in 100 percent of the sample. The rate of decline varied between 8 percent, as seen in Paraguay, and 45 percent, as seen in Barbados.

CHILD MORTALITY RATES

Table 16 provides data on child mortality rates. The child mortality rate (CMR), defined as deaths per 1,000 children under 5, is usually preferred to the infant mortality rate because it avoids the IMR's sensitivity to local weaning practices. UNICEF considers the CMR to be the best overall indicator of children's social development. Data on CMRs are generally an untraceable mix of survey findings, interpolations, and extrapolations. The CMR data that we chose to use for the 1980s come primarily from estimates compiled by the United Nations and the World Bank.

The trend in child mortality in the LAC region is clearly favorable. The U.N. data show a declining CMR in all 22 countries in the LAC region during the 1980s. If time series data from the World Bank from 1987 to 1989 are used to represent the end of the decade, declines occurred in 20 of 21 countries, registering an increase of 17 percent in Trinidad and Tobago.

LIFE EXPECTANCY

Life expectancy data are from the World Bank *World Tables* (Table 17). Because trends in life expectancy reflect closely changes in the CMR data, they can be used as a complementary or fill-in indicator when the latter have gaps.

In 21 of the 23 countries for which we have data points life expectancy was higher in the late 1980s than in the early 1980s. In 2 countries, the increases were only a few percent and probably insignificant.

TABLE 15

INFANT MORTALITY RATES
PER 1000 LIVE BIRTHS

	Average 1980-82	Average 1987-89	Average 1990-91	% change (80-82)-(87-89)	% change (87-89)-(90-91)	% change (80-82)-(90-91)
Argentina	37	31	28	-15	-12	-25
Bahamas, The	29	24	28	-16	15	-3
Barbados	19	11	10	-45	-10	-50
Bolivia	109	88	84	-19	-4	-23
Brazil	73	62	59	-15	-5	-19
Chile	29	18	17	-38	-3	-40
Colombia	45	39	31	-12	-22	-31
Costa Rica	19	16	14	-18	-8	-25
Dominican Republic	69	59	55	-15	-7	-21
Ecuador	67	57	51	-15	-11	-24
Guatemala	79	66	61	-16	-8	-23
Haiti	111	96	94	-13	-2	-15
Honduras	69	51	50	-26	-2	-28
Jamaica	20	17	15	-15	-7	-22
Mexico	51	40	37	-22	-8	-28
Nicaragua	88	67	58	-24	-14	-34
Panama	27	23	21	-17	-5	-21
Paraguay	53	49	41	-8	-15	-22
Peru	79	58	54	-27	-8	-32
Trinidad and Tobago	32	23	20	-30	-14	-39
Uruguay	35	23	21	-33	-8	-39
Venezuela	40	35	34	-11	-4	-14

SOURCE: WORLD BANK SOCIAL INDICATORS OF DEVELOPMENT, DATA ON DISKETTE

TABLE 16

CHILD MORTALITY RATES

PER 1000 BIRTHS

	United Nations Data 1980-85	United Nations Data 1985-90	World Bank Data 1987-89	World Bank Data 1990-91	% change UN - UN (80-85)-(85-90)	% change UN - WB (80-85)-(87-89)	% change WB - WB (87-89)-(90-91)
Argentina	42	38	38	33	-10	-10	-13
Bolivia	197	171	124	120	-13	-37	-3
Brazil	96	86	74	68	-10	-23	-8
Chile	28	24	21	20	-14	-24	-6
Colombia	75	68	46	35	-9	-39	-24
Costa Rica	24	22	21	18	-8	-11	-18
Dominican Re	94	82	77	70	-13	-19	-8
Ecuador	96	87	68	62	-9	-29	-8
El Salvador	98	84	76	59	-14	-22	-22
Guatemala	118	99	90	82	-16	-24	-9
Guyana	45	37			-18		
Haiti	189	170	139	145	-10	-27	5
Honduras	126	106	83	69	-16	-34	-17
Jamaica	27	23	20	19	-15	-24	-9
Mexico	77	68	49	45	-12	-38	-9
Nicaragua	115	93	80	70	-19	-30	-13
Panama	37	33	27	28	-11	-27	-6
Paraguay	67	61	40	40	-9	-40	0
Peru	143	122	92	77	-15	-36	-16
T&T	28	23	33	27	-18	17	-19
Uruguay	34	30	28	24	-12	-18	-13
Venezuela	47	43	42	40	-9	-10	-5

SOURCES: UN DATA AND WORLD BANK SOCIAL INDICATORS, DATA ON DISKETTE

TABLE 17

LIFE EXPECTANCY RATES

	Average 1980-82	Average 1987-89	Average 1990-91	% change (80-82)-(87-89)	% change (87-89)-(90-91)	% change (80-82)-(90-91)
Argentina	69	71	71	2	1	2
Belize	59	67	68	13	2	15
Bolivia	54	57	58	4	3	7
Brazil	57	65	66	15	1	16
Chile	62	72	72	15	0	16
Colombia	62	68	69	11	1	12
Costa Rica	69	75	76	10	1	10
Dominica	46	72	72	55	0	56
Dominican Rep.	56	66	67	17	1	19
Ecuador	60	65	66	10	1	11
El Salvador	55	62	65	14	4	18
Guatemala	55	62	64	12	3	15
Haiti	52	54	54	4	1	4
Honduras	55	64	65	17	2	19
Jamaica	62	73	73	17	1	18
Mexico	60	69	70	14	1	15
Nicaragua	52	63	65	19	4	24
Panama	64	72	73	12	1	13
Paraguay	66	67	67	1	0	1
Peru	51	61	63	21	3	24
Trinidad & Tobago	64	70	71	10	1	11
Uruguay	64	72	73	12	1	13
Venezuela	61	70	70	14	1	14

SOURCE: WORLD BANK WORLD TABLES, VARIOUS YEARS

VACCINATION RATES

Vaccination rates are as much inputs as measures of outcomes. A truer outcome measure would be morbidity and mortality figures for infectious disease. These are unavailable or are unreliable, usually limited to data gathered in a few main hospitals.⁴ Vaccination coverage is unstable; every year an entirely new population must be reached. In addition, statistics usually indicate the volume of vaccines distributed; losses en route to infants' arms are not accounted for.

Vaccination coverage is nonetheless an excellent indicator of health status (Table 18). It is also an area of strong improvement during the 1980s in Latin America. The concerted efforts of governments, certain donors, and NGOs have dramatically increased national vaccination rates. For the period between the early and late 1980s, the rate of vaccination against the four targeted childhood diseases (tuberculosis, polio, measles, and whooping cough) substantially increased. Only 1 of the 22 countries in our sample experienced a vaccination coverage decline over the decade, and 2 countries saw coverage remain essentially the same (one — Chile — had already achieved nearly universal coverage by the early 1980s). The other 19 countries saw significant increases over the decade.

PRIMARY NET ENROLLMENT RATIOS

We focus here on net primary enrollment ratios — the percentage of primary-school-age children in primary school. Primary education has been found to have high social rates of return and it gives assets to the poor that help them move out of poverty. In addition, there is evidence that many poor households do not keep children in school past the primary level.

Table 19 contains data for 14 countries. Four countries evidenced an increase over the decade, 4 saw declines, and the other 6 remained virtually the same. It seems reasonable to conclude that there was no general decline in primary net enrollment ratios over the decade.

PRIMARY SCHOOL STUDENT-TEACHER RATIOS

The ratio of the number of primary students to teacher can serve as a proxy for educational quality, though a weak one given the uncertain relationship between class size and pupil performance. In principle, the fewer students for whom a single teacher is responsible, the more attention and better education each student receives. Table 20 provides data on trends in this ratio in the 1980s and early 1990s.

The student-teacher ratio clearly improved during the 1980s. Declines were registered in 15 of 21 countries for which we have data, increases in 4, and 2 saw virtually no change.

⁴ In line with its worldwide recrudescence, malaria rates seem to be on the rise. Reported cases in Venezuela rose from more than 4,600 in 1982 to more than 44,000 in 1989. In Costa Rica, malaria incidence is still low but rose by five times between 1982 and 1984. In Brazil, also, recorded deaths from malaria increased between 1983 and 1986.

TABLE 18

VACCINATION RATES

	Average 1980-82	Average 1987-89	Average 1990-92	% change (80-82)-(87-89)	% change (87-89)-(90-92)	% change (80-82)-(90-92)
Argentina	66	77	88	17	14	34
Bolivia	17	36	65	106	82	276
Brazil	67	66	80	-1	21	19
Chile	94	93	94	-1	0	-1
Colombia	30	71	85	136	20	182
Costa Rica	78	84	92	8	9	17
Dom. Republic	32	57	69	78	21	116
Ecuador	42	59	67	41	14	61
El Salvador	44	60	66	36	10	49
Guatemala	33	37	65	11	77	96
Guyana	52	68		29		
Haiti	21	39	33	88	-14	62
Honduras	42	67	90	61	34	115
Jamaica	36	73	78	101	8	116
Mexico	52	67	83	29	24	60
Nicaragua	37	68	75	86	9	103
Panama	59	77	83	32	8	42
Paraguay	28	67	79	137	18	180
Peru	31	54	73	77	35	138
T&T	47	69	80	47	16	71
Uruguay	64	79	88	23	11	37
Venezuela	64	59	64	-9	9	-1

SOURCE: WORLD HEALTH ORGANIZATION EXPANDED PROGRAM ON IMMUNIZATION, AND UNICEF

TABLE 19

NET PRIMARY SCHOOL ENROLLMENT RATIOS

	Average 1980-82	Average 1987-89	Average 1990-91	% change (80-82)-(87-89)	% change (87-89)-(90-91)	% change (80-82)-(90-91)
Bolivia	76	83	81	9	-2	7
Brazil	81	84	87	4	4	8
Chile	98	89	87	-10	-2	-12
Colombia	78	70	74	-10	6	-5
Costa Rica	90	86	87	-4	1	-3
Dominican Rep	71					
El Salvador	56	72		29		
Guatemala	59					
Haiti	39	27	26	-32	-2	-34
Honduras	80		93			
Jamaica	98	97	100	-1	3	3
Mexico		100	100			
Nicaragua	74	75	77	2	3	5
Panama	88	91		3		
Paraguay	89	90	96	2	6	8
Peru	91	95		5		
T & T	90	92	90	2	-2	1
Uruguay		91	91			
Venezuela	86	87	90	1	4	5

SOURCE: UNESCO YEARBOOK, VARIOUS YEARS

TABLE 20

PRIMARY SCHOOL STUDENT-TEACHER RATIO

	Average 1980-82	Average 1987-89	1990	% change (80-82)-(87-89)	% change (87-89)-(90)	% change (80-82)-(90)
Argentina	20	19		-5		
Bahamas, The	25					
Barbados	23	18		-20		
Bolivia	21	26	25	20	-4	16
Brazil	25	23	23	-5	-2	-7
Chile	33	29		-12		
Colombia	30	30		-2		
Costa Rica	31	32	32	4	0	4
Dominican Republic	55	47		-14		
Ecuador	36	31		-13		
El Salvador	45	43		-4		
Guatemala	35	35		0		
Haiti	44	24	21	-46	-11	-51
Honduras	38					
Jamaica	38	34	37	-11	9	-3
Mexico	38	31	31	-17	-3	-19
Nicaragua	36	33	33	-9	2	-7
Panama	27	22		-19		
Paraguay	27	25	25	-6	-2	-8
Peru	38	30	28	-20	-7	-25
Trinidad and Tobago	23	25	26	10	2	12
Uruguay	22	26		19		
Venezuela	34	23	23	-31	-1	-32

SOURCE: WORLD BANK SOCIAL INDICATORS OF DEVELOPMENT, DATA ON DISKETTE

ILLITERACY RATES

The illiteracy rate is defined as "the proportion of the population 15 years of age and older who cannot, with understanding, both read and write a short simple statement on everyday life." These data are taken from the World Bank's *Social Indicators of Development* database.

As seen in Table 21, literacy rates fell between 1980 and 1990 for all of the 12 countries for which we have data. Therefore, literacy clearly improved over the decade.

TRENDS OF THE EARLY 1990s

Data for the early 1990s were available for 11 to 23 countries in the LAC region. Continuing the trend of the 1980s, strong improvement was evidenced for almost all of the indicators relative to the early and late 1980s, and no indicator saw a general decline.

Compared with the late 1980s, all indicators remained either essentially the same or improved. Clear improvements were evidenced by infant mortality rates, child mortality rates, and vaccination coverage, while stability was apparent in life expectancy, enrollment ratios, and student-teacher ratios.

Relative to the early 1980s, all of the indicators demonstrated strong improvement. Therefore, we see no evidence of general deterioration in any of the social indicators compared with the early 1980s.

SUMMARY OF EMPIRICAL EVIDENCE FOR LATIN AMERICA

Given the decline in GDP per capita (1.2 percent per annum between 1981 and 1990) and the fall in terms of trade of about 15 percent over the decade, it is hard to believe that absolute poverty did not increase over the 1980s. But the available poverty data do not show this deterioration very sharply. The following are the main points from the discussion in Chapters Two-Four of the empirical evidence on trends in poverty indicators in LAC between the early and late 1980s. Tables 22 and 23 summarize these trends.

- The income indicators provide conflicting reports on the welfare of the poor. Absolute and relative poverty increased and decreased in the same number of countries between the early and late 1980s but our sample size is small. The trend toward increased poverty is clearer when measured from the mid-1980s. Also, per capita private consumption shows no clear trend: it fell in 11 of 21 countries with data. Wages generally declined. Recorded unemployment evidenced no general trend, worsening and improving in about the same number of countries.
- The public expenditure indicators are mixed. Government noninterest spending declined over the 1980s, in both real per capita terms and as a share of GDP, while interest payments rose. In the majority of countries, the share of expenditure allotted to health increased, and the share allotted to education did not decline.

TABLE 21

ILLITERACY RATES

TOTAL X % OF POPULATION AGE 15+

	1980	1985	1990	% Change 1980-85	% Change 1985-90	% Change 1980-90
Argentina	6	5	5	-15	-10	-23
Bolivia		28	23		-18	
Brazil	26	22	19	-16	-12	-26
Chile (2)	9	8	7	-12	-15	-26
Colombia (1)	15	15	13	3	-13	-10
Costa Rica		8	7		-12	
Dominican Republic		20	17		-15	
Ecuador (2)	20	17	14	-14	-16	-28
El Salvador	33	31	27	-5	-13	-17
Guatemala		48	45		-7	
Haiti (2)	65	52	47	-20	-10	-28
Honduras		32	27		-16	
Jamaica		2	2		-20	
Mexico	17	15	13	-12	-17	-27
Nicaragua	13					
Panama	14	14	12	-6	-13	-17
Paraguay (2)	13	12	10	-6	-15	-21
Peru (1)	18	18	15	-1	-17	-18
Trinidad and Tobago	5	4		-24		
Uruguay		5	4		-19	
Venezuela (2)	15	14	12	-7	-17	-22

1/ 1981 INSTEAD OF 1980

2/ 1982 INSTEAD OF 1980

SOURCE: WORLD BANK SOCIAL INDICATORS OF DEVELOPMENT, DATA ON DISKETTE

TABLE 22

INDICATORS OF POVERTY AND SOCIAL WELFARE

	Absolute Poverty % of population		Real Priv. Cons/Cap Indexed		Real Min Wage Indexed		Prevalence Underweight Children		CMR per 1000 births		Life Expectancy Years		Vaccination Rate		Net Enrol. Ratio		Illiteracy Rate	
	Early 80s	Late 80s	Early 80s	Late 80s	Early 80s	Late 80s	Early 80s	Late 80s	Early 80s	Late 80s	Early 80s	Late 80s	Early 80s	Late 80s	Early 80s	Late 80s	Early 80s	Late 80s
Argentina	3	6	95	98	99	86			42	38	69	71	66	77			6	5
Barbados																		
Belize											59	67						
Bolivia			95	81	100	38	15	11	197	171	54	57	17	36	76	83		23
Brazil	34	41	97	91	104	71	18	7	96	86	57	65	67	66	81	84	26	19
Chile			101	97	109	74	1	3	28	24	62	72	94	93	98	89	9	7
Colombia	13	8	102	102	102	111	17	10	75	68	62	68	30	71	78	70	15	13
Costa Rica	13	3	89	86			6	2	24	22	69	75	78	84	90	86		7
Dominica											46	72						
Dominican Republic			96	96					94	82	56	66	32	57	71			17
Ecuador			103	109	88	54			96	87	60	65	42	59			20	14
El Salvador			95	96			22	16	98	84	55	62	44	60	56	72	33	27
Guatemala			99	87			44	29	118	99	55	62	33	37	59			45
Guayana									45	37			52	68				
Haiti			98	83					189	170	52	54	21	39	39	27	65	47
Honduras			101	94					126	106	55	64	42	67	80			27
Jamaica			104	92			15	7	27	23	62	73	36	73	98	97		2
Mexico			99	94	97	56			77	68	60	69	52	67		100	17	13
Nicaragua			91	40			11	12	115	93	52	63	37	68	74	75	13	
Panama	28	32	99	98					37	33	64	72	59	77	88	91	14	12
Paraguay	13	8	104	104	101	132			67	61	66	67	28	67	89	90	13	10
Peru			99	101	90	48	10	10	143	122	51	61	31	54	91	95	18	15
Trinidad & Tobago			115	91			16	6	28	23	64	70	47	69	90	92	5	
Uruguay	6	5	97	91	102	84			34	30	64	72	64	79	91	91		4
Venezuela	4	13	104	108	90	91	10	6	47	43	61	70	64	59	86	87	15	12

SOURCE: PREVIOUS TABLES

BEST AVAILABLE DOCUMENT

TABLE 23
SUMMARY OF TRENDS 1/

KEY:
+ = IMPROVED
- = WORSEMED
O = STABLE

COUNTRY	INCOME					PUBLIC EXPENDITURE					OUTCOMES						
	ABSOLUTE POVERTY	RELATIVE POVERTY	CONSUMPTION CAP.	HOUSEHOLD INCOME	UNEMPLOYMENT	TOTAL EXP. PER CAP.	EDUCATION EXP.	HEALTH EXP.	EDUCATION EXP. CAP.	HEALTH EXP. CAP.	UNEMPLOYMENT CAP.	CHILD MORTALITY	LIFE EXPECTANCY	ADOLESCENT MORT.	ART PRODUCTIVITY	STUDENT/TEACHER	LITERACY RATE 2/
Argentina	-	-	O	-	-	-	O	-	-	-		+	O	+		+	+
Barbados																	
Belize																	
Bolivia								O	-	-	+	+	+	+	+		
Brazil	-	-	-	-	+	-	+	+	+	+	+	+	+	O	+	+	+
Chile								+	-	O							
Colombia	+	+	O	+	-	-	-	-	-	-	+	+	+	+	-	O	+
Costa Rica	+	+	O		+	+	-	-	-	-	+	+	+	+	-	-	
Dominica																	
Dominican Republic			O			+	-	O	-	+	+	+	+	+	+		
Ecuador			+	-	-	-	-	+	-	+	+	+	+	+	+	+	+
El Salvador			O			-	O	-	-	-	+	+	+	+	+	+	+
Guatemala						-	+	+	+	-	+	+	+	+	+	O	
Guyana																	
Haiti																	
Honduras																	
Jamaica											+	+	+	+	O	+	
Mexico					+	-	+	+	-	-	+	+	+	+	+	+	+
Nicaragua						+					O	+	+	+	O	+	
Panama	-	-	O			-	+	+	+	+		+	+	+	O	+	+
Paraguay	+	+	O	+	O	-	+	O	-	-		+	O	+	O	+	+
Peru			O	-	+	-	+	+	-	-	O	+	+	+	+	+	+
Trinidad & Tobago											+	+	+	+	O	-	
Uruguay	+	+	-	-	-	-	O	+	O	+		+	+	+		-	
Venezuela	-	-	O	O	-	-					+	+	+	-	O	+	+
TOTAL +	4	4	1	2	5	3	6	8	3	5	9	22	21	19	4	15	12
TOTAL O	0	0	9	1	1	0	3	3	1	1	3	0	2	2	6	2	0
TOTAL -	4	4	11	8	6	15	5	2	10	7	0	0	0	1	4	4	0

1/ TABLE SHOWS TRENDS BETWEEN AVERAGE VALUES OF INDICATORS FROM 1980-87 AND THEIR AVERAGE VALUES FROM 1967-69
2/ CMR DATA SHOWS TRENDS BETWEEN AVERAGE VALUES OF INDICATORS FROM 1980-85 AND THEIR AVERAGE VALUES FROM 1965-69
3/ ILLITERACY DATA SHOWS TREND BETWEEN THE YEAR 1980 AND THE YEAR 1960
4/ FOR EXPENDITURE DATA, A PLUS MEANS AN INCREASE AND A MINUS MEANS A DECREASE

BEST AVAILABLE DOCUMENT

- The outcome measures or social indicators are almost invariably highly positive:
 - **Calorie availability** was maintained or improved for the majority of countries in each of the four sources examined. In none of the 12 national surveys of nutrition documented by the UN ACC/SCN were there sufficient percentage point increases in the prevalence of **child malnutrition**.
 - *Every* country for which we have data shows a reduction in its **child mortality rate** over the 1980s, according to UN data. Data for the **infant mortality rate** — more comprehensive, but a bit less firm — also show a uniform improvement. **Life expectancy** also increased or was maintained everywhere in the region.
 - Progress in **vaccination coverage** is nearly as good. Nineteen of 22 countries improved their rate of coverage against the four major childhood diseases.
 - **Net primary enrollments** increased or were maintained in the majority of countries, declining in only 4. The **student-teacher ratio** improved strongly in 15 of 21 countries. **Illiteracy rates** demonstrated universal improvement.

These findings raise several questions, of which two are most intriguing. First, how can we explain the surprising paradox they reveal? Headcount poverty likely increased, wages worsened, and public resources allocated to education fell significantly on a per capita basis. Yet conditions of life continued to improve in all countries of the region by almost every measure, and access of the poor to primary education did not decline.

Secondly, how can we explain the rise and wholesale adoption of the UNICEF vision of a Latin America undergoing deteriorating living conditions in the 1980s, in the face of the strong presumption to the contrary that emerges from these numbers? After all, most of these data were known in broad outline by the middle of the decade, and certainly by 1988.

These questions will be considered in Part Three, as will the impact of structural adjustment on the poor. But the data for Africa have to be reviewed first. African trends in consumption and real wages, in public expenditures, and in social welfare indicators are analyzed in the following three chapters.

PART TWO

SUB-SAHARAN AFRICA

CHAPTER FIVE

POVERTY TRENDS: INCOME MEASURES

As in the preceding discussion of Latin America, we examine first the behavior of African poverty indicators based on household incomes. Three such measures are reviewed. The first is the direct indicator: the incidence of poverty measured by the proportion of households with incomes below some level defined as the poverty line. Two other indicators are indirect: per capita personal consumption as given in national accounts data, and urban wage levels. Because of sparsity of data, changes in income distribution are not considered.

TRENDS IN ABSOLUTE POVERTY

Most Africans are poor and probably became poorer in the 1980s. But in Sub-Saharan Africa it is even harder than in Latin America to make firm quantitative statements about the extent and evolution of poverty in recent years. The African data are thinner, and have been worked over less intensively in comparative analyses. And of course the same conceptual and practical difficulties noted in the Latin American discussion confound efforts to give precise definition and measurement to poverty in Sub-Saharan Africa, and especially changes in its level.

As noted earlier, the most widely accepted method for determining a headcount poverty measure relies on the definition of a per capita income cut-off point, usually a multiple of the cost of providing a nutritionally sufficient diet, below which households are considered to be in a state of absolute poverty. Various features of African economies complicate this seemingly straightforward measure: a large portion of household consumption often comes from home production; in large countries with poorly integrated markets, spatial and seasonal price variations are especially large; consumption patterns vary widely from one region to another; and many economic transactions take place outside the monetized economy. These and other factors (such as a generally shakier database) make poverty line definition and measurement particularly difficult in this region.

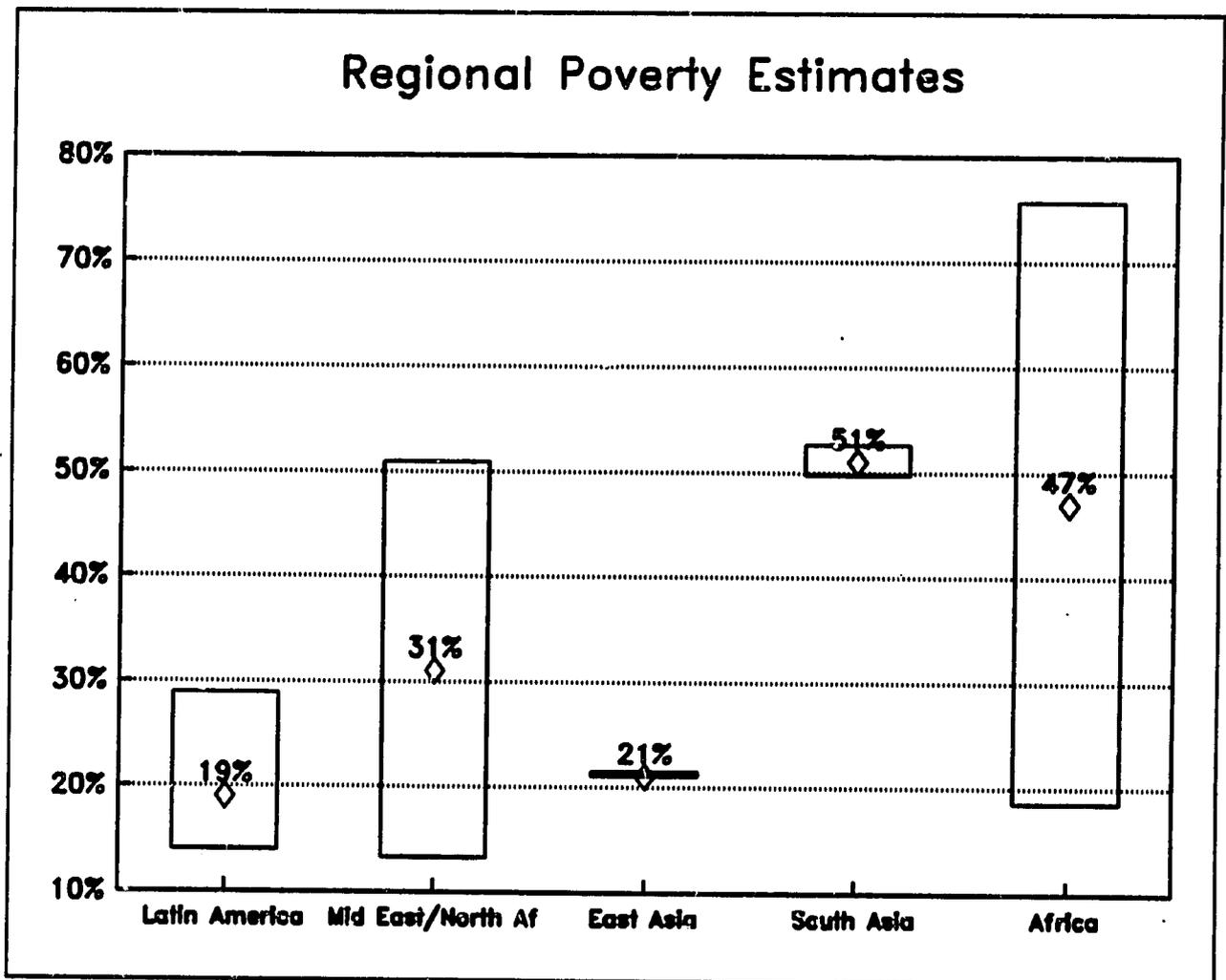
The sparsity of accurate absolute poverty measures in Sub-Saharan Africa explains its portrayal in Figure 1, which presents regional estimates of the proportion of households earning less than an international standard poverty line of \$31 (1985 purchasing power parity) per person per month. The rectangles show the 95 percent confidence intervals for each estimate. The figure tells us that the estimated proportion of African households under the poverty line is 47 percent, but this is not a reliable estimate since the proportion could be as low as 20 percent or as high as 75 percent. The differences in degrees of confidence that can be placed on the estimates (indicated by the length of the rectangles) reflect

differences in population coverage; in Africa, for example, income distribution data are available for only 6 percent of the population, compared with 95 percent for Asia and 55 percent for Latin America.¹

With so high a degree of uncertainty in the poverty estimate, it is easy to see why it is difficult to put forth credible statements about levels of absolute poverty on a continental scale. On the basis of existing global estimates, as given in the 1990 *World Development Report*, Africa is in a virtual tie with South Asia as the world's poorest region with 47 percent of its population, or 180 million people, living in poverty in 1985.

FIGURE 1

PROPORTION OF HOUSEHOLDS EARNING A MONTHLY INCOME
BELOW \$31 PER PERSON, 1985



¹ M. Ravallion, G. Dutt, D. van de Walle, and E. Chan, "Quantifying the Magnitude and Severity of Absolute Poverty in the Developing World in the Mid-1980s." Background Paper for the 1990 *World Development Report*.

Reliable time series data on absolute poverty levels in individual countries are sorely lacking. Furthermore, few Sub-Saharan African countries set official household income poverty lines. Accordingly, within any given country, different studies of poverty usually use different definitions and methodologies. So even where headcount measures exist for more than one point in time, problems of comparability make interpretation a risky affair. Only two countries have more than one data point — Malawi and Ghana. The Malawi numbers show a decline in overall poverty incidence between 1977 and 1989 from 80 percent to 55 percent of the population. But these estimates come from different sources and the 1989 estimate is based on a much lower poverty line than the 1977 estimate. The registered decline in absolute poverty thus has probably come more from the definitional change than from any genuine improvement in income levels of the poor.²

Ghana has headcount poverty measures for 1975, 1985, and 1987. Over this time period, the overall incidence of poverty declined steadily, despite the use of higher real cedi poverty lines in the later years. It is hard to interpret the Ghana data — for example, the fact that rural poverty fell by more than 50 percent between the mid-1970s and mid-1980s, while urban poverty rose somewhat during the same period; or the fact that the proportion of households in absolute poverty fell from 75 percent in 1975 to 44 percent in 1985, when the economic recovery of Ghana had barely begun.

OTHER INCOME-BASED WELFARE MEASURES

Private Consumption

Private consumption data are imperfect measures of actual household consumption for reasons already noted; aside from weaknesses in overall national accounts data from which they come, they are particularly sensitive to changes in the public-private sector mix that may not actually represent changes in the value of goods and services consumed by households. (For example, a greater reliance on private, as opposed to public, providers of health care would register as an increase in private consumption, but might not actually represent a change in the overall value of medical services consumed by households.) Nevertheless, these numbers do portray general trends in consumption and are a major measure of household welfare.³

² Studies organized by the former Social Dimensions of Adjustment (SDA) unit in the World Bank used another approach to developing a headcount index of absolute poverty. Instead of defining a cutoff point by working out the minimum cost of a nutritionally sufficient diet and then adding something for nonfood expenditure, these studies (for example, those by Boateng et al. ["A Poverty Profile for Ghana, 1987-88," World Bank SDA Working Paper no. 5, June 1990] and Ravi Kanbur ["Poverty and the Social Dimensions of Structural Adjustment in Côte d'Ivoire," SDA Policy Analysis, The World Bank, March 1990]) defined a poverty line in relation to a sample distribution of individuals ranked according to per capita household income. According to this approach, the poverty line for the Côte d'Ivoire, for example, is defined as that income level below which fall 30 percent of the individuals surveyed. In the data from the Côte d'Ivoire, this line happens to be nearly half of the sample mean. Boateng et al. take a similar approach by setting the poverty line in Ghana equal to two-thirds of their sample mean, which happens to correspond to a headcount index of 36 percent. Kanbur argues that in the absence of nutritional studies to determine an objective "scientific" poverty line, such an approach can be useful in establishing an absolute line, which can then be fixed and serve as a reference point for measuring future changes in poverty.

³ In its RAL III report, the World Bank notes that "changes in average consumption are the primary cause of poverty changes." Country Economics Department, *Adjustment Lending and Mobilization of Private and Public Resources for Growth* (RAL III), Policy and Research Series 22, Washington, D.C.: The World Bank, 1992.

Percentage changes in per capita real private consumption are given in Table 24. The general picture is one of decline. Twenty of 37 countries with data saw a reduction in private consumption, 9 saw an increase, and 8 saw virtually no change (only a few percent in either direction). Niger suffered the worst drop, at 28 percent, and Sao Tome and Zimbabwe were next, with reductions of about 25 percent. Of the countries in our sample in which consumption rose, however, there were also cases of substantial progress. Mauritius enjoyed a consumption increase of 45 percent, and Guinea-Bissau and Cape Verde registered a gain of around 20 percent.

Twenty-nine of the 37 countries had data permitting an assessment of trends into the early 1990s. Compared with the late 1980s, consumption declined in 14, rose in 8, and hardly changed in 7. Relative to the early 1980s, consumption declined in 18, rose in 7, and remained essentially unchanged in 4.

Wages and Employment

Stabilization and adjustment programs frequently call for measures that impact negatively on urban formal sector wage earners, especially in the public sector. They seek to reduce external and internal imbalances, which almost invariably requires cutbacks on public enterprise employment and containment of public sector wage bills. In addition, many structural adjustment programs in Africa explicitly aim to shift the rural-urban terms of trade in favor of farmers.

Data on wage and employment trends in Africa are spotty and limited to the formal sector (and often cover only the formal public sector). Nevertheless some patterns do emerge from the available information. Table 25 shows that real minimum wages (in most cases the statutory urban minimum rate) declined sharply during the 1980s in 17 of 22 countries with data, rose in only 4, and remained the same in 1.

Statutory minimum wages are a usable proxy for actual earnings of unskilled workers in formal sectors. They are the wage rates actually paid to many workers, and they are often also key rates in the wage structure, so that their changes are often representative of general movements in levels of earnings.

It is not the same with public sector wages. Data on salary *rates* do exist. But *earnings* data are few and those that can be found are not robust. They are derived by dividing total public sector wage bills by public sector employment, but massive uncertainties exist for both numerator and denominator.

Available average earnings data are presented in Table 26. These do not show any general drop during the last decade. In 4 of the 8 countries, average real civil service earnings levels either increased during the 1980s or exhibited no marked trend (Cameroon, Gambia, Ghana, and Kenya). In Madagascar, Senegal, Tanzania, and Zimbabwe there were significant declines.

TABLE 24

REAL PER CAPITA PRIVATE CONSUMPTION, INDEXED
1980=100

	Average 1980-82	Average 1987-89	Average 1990-92	% change (80-82)-(87-89)	% change (87-89)-(90-92)	% change (80-82)-(90-92)
BENIN (1)	106	83	85	-21	2	-20
BOTSWANA	106	87		-18		
BURKINA (1)	101	98	96	-3	-2	-5
BURUNDI	101	103	118	2	14	17
CAMEROON	105	109	102	3	-6	-3
CAPE VERDE	102	125		22		
CAR (1)	93	87	87	-6	-1	-7
CONGO (1)	126	118	110	-7	-6	-13
COTE D'IVOIRE (1)	108	89	68	-17	-25	-37
ETHIOPIA	101	89	79	-12	-12	-22
GABON (1)	103	83		-20		
GAMBIA (1)	77	73	72	-6	-1	-7
GHANA	97	86	91	-11	6	-6
GUINEA-BISSAU (1)	118	144	150	22	4	27
KENYA	101	98		-3		
LESOTHO	104	106	105	2	-1	0
LIBERIA	113	111		-2		
MADAGASCAR	93	85	82	-8	-4	-12
MALAWI	97	108	117	12	8	21
MALI (1)	102	102	100	0	-2	-2
MAURITANIA (1)	108	124	136	15	9	25
MAURITIUS (1)	97	141	152	45	8	57
MOZAMBIQUE (1)	99	82	79	-16	-5	-20
NIGER (1)	99	71		-29		
NIGERIA	100	93	74	-8	-20	-26
RWANDA	97	89	83	-8	-6	-14
SAO TOME (1)	81	60		-26		
SENEGAL (1)	105	101	97	-4	-4	-7
SEYCHELLES	114	140	133	23	-5	17
SIERRA LEONE	101	86	80	-15	-7	-21
SOMALIA (1)	108	94		-13		
SUDAN	108	105	94	-2	-11	-13
SWAZILAND	105					
TANZANIA	93	99	86	7	-13	-7
TOGO (1)	106	119	126	12	6	19
ZAIRE	96	84	82	-12	-3	-14
ZAMBIA (1)	98	105	98	7	-7	0
ZIMBABWE (1)	107	79	84	-26	5	-22

SOURCES:

1/ SEREGELDIN, 1992

ALL OTHERS ARE FROM THE IFS YEARBOOK, VARIOUS YEARS

TABLE 25

REAL MINIMUM WAGES, INDEXED
1980=100

	Average 1980-82	Average 1986-89	% change (80-82)-(86-89)
Benin	92	88	-4
Burkina	97	90	-7
Cameroon	70	108	54
Central African Republic	86	55	-36
Congo	87		
Chad	92	84	-9
Cote d'Ivoire	102	87	-15
Ethiopia	94	77	-18
Gabon	97	96	-1
Gambia	97		
Ghana	111	143	29
Guinea	93		
Kenya	88	65	-26
Liberia	94	83	-11
Madagascar	90	65	-28
Malawi	129	109	-15
Mali	117	145	23
Mauritania	92	59	-36
Mauritius	91	76	-16
Nigeria	129		
Niger	97	80	-18
Rwanda	92		
Senegal	99	79	-20
Rwanda	92		
Somalia	90	16	-82
Sudan	81		
Tanzania	98	61	-38
Togo	93	73	-22
Zambia	94		
Zimbabwe	113	123	9

SOURCES: SEE RELEVANT APPENDIX

TABLE 26
AVERAGE REAL CIVIL SERVICE SALARIES

INDEX OF REAL CIVIL SERVICE SALARIES, 1970-1989, SELECTED COUNTRIES

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Cameroon						129	111	118	119	113	100	113		107	109	107	123	117	124	
Gambia					130	142		89	91	111	100	120	145	132	147	107	94	114		
Ghana	197	184	215	184	201	208	154	139	124	117	100	78	60	43	43	98	126	136	137	159
Kenya 1/													100	85	84	91	100			
Madagascar	132	132	132	139	117	108	122	117	109	107	100	84	74	68	68	68	63			
Senegal	92	91	91	91	92	89		78	86	101	100	94	90	88	83	78	78	79	80	82
Tanzania			127	144	151	215	192	174	172	111	100	91	45							
Zimbabwe 2/											100	83	75	78	71		51	61	64	

1/ (1981 = 100), 2/ (1982 = 100)

Sources:

NUMBER AND DEFINITION OF PUBLIC EMPLOYEES —

Cameroon, Gambia, Ghana, Tanzania, and Zimbabwe: Moses Kiggundu, "Gov't Employment" Table 3.1. Kenya: "Public Sector" — includes Parastatals. IMF, Recent Economic Developments, Senegal: "Civil Servants," excluding technical assistance and employees "In the Process" of retiring. IMF, Recent Economic Developments.

NOMINAL WAGE BILL — IMF, Government Finance Statistics, Except: Ghana (Kiggundu)

GDP DEFLATORS — IMF, International Financial Statistics

As for cutbacks in public sector employment, the experience of several countries suggests that these have had a limited effect on urban poverty. As of mid-1991 only four countries could be identified where more than 5,000 wage earners had been dropped from government payrolls: Cameroon (11,000), Ghana (49,000), Guinea (39,000), and Uganda (20,000). But all of the reduction of payrolls in Uganda came from removal of phantoms (fictional check-receivers), as were half of the reduction in Cameroon and a quarter of that in Ghana.⁴

The social impact of these cases of civil service downsizing has been mitigated by several factors. Chief among these is that real civil service pay in these countries had fallen to such low levels by the early 1980s that households relying primarily on civil service pay as their main source of income had already been forced to look for other sources of revenue. In Ghana, the average civil service wage in 1983 and 1984 had lost almost 80 percent of its purchasing power relative to 1975. Absenteeism and moonlighting were endemic.⁵ When the subsequent retrenchment axe fell, the shock came in an environment in which civil servants had already, by necessity, devised strategies for coping with extremely low levels of real wage income, such as taking second jobs and starting small-scale enterprises.

In addition, although retrenched employees were a significant part of the formal sector labor force, they were an insignificant share of the total labor force — less than 1 percent even in Ghana and Guinea, where retrenchments were most numerous.

Finally, there is evidence of considerable flexibility in African labor markets. Generally, informal sectors have grown and absorbed some of those leaving the public sector. In some cases, modern sector private employment also may have expanded. This at least seems to have occurred in Ghana, where a

⁴ World Bank, "The Reform of Public Sector Management: Lessons from Experience," Policy and Research Series no. 18, 1991.

⁵ P. Beaudry and N.K. Sowa, "Labor Markets in an Era of Adjustment: A Case Study of Ghana," August 1990, p. 42.

census of 82 manufacturing and microenterprise firms found that 62 percent reported increased employment levels after 1983 (the inception of the adjustment program), while only 17 percent recorded employment cutbacks. Some of this may represent absorption of retrenched public employees, though there is no direct evidence of this.⁶ Labor market flexibility is also evident from Côte d'Ivoire data showing that sectoral employment shares in modern manufacturing have changed in line with changes in relative prices.⁷

The equity implications of these changes in the wage sector are ambiguous. Urban modern sector wage earners are among the more favored groups in African economies. Recent data collected in Côte d'Ivoire and Ghana bear this out: they give little evidence of poverty among formal sector workers. In Côte d'Ivoire, only 6 percent of formal private sector employees were classified as poor. Among public sector employees, this figure was even lower; only 3 percent of public sector workers were poor. The Ghanaian survey data also show that formal sector employment income comprised only 4.4 percent of total income accruing to the poor.⁸ Thus, although urban formal sector employees may bear much of the burden associated with adjustment, they are a relatively small social group and can hardly be counted among the most vulnerable, at least as measured by per capita household income.

⁶ World Bank, "Ghana: Progress on Adjustment," Report No. 9475-GH, April 16, 1991, p. 10.

⁷ Richard Blundell, Christopher Heady, and Rohinton Medhora, "Labour Markets in an Era of Adjustment: The Case of Côte d'Ivoire," November 1990. (To be published as a chapter in forthcoming book edited by Sue Horton, Ravi Kanbur, and Dipak Mazumdar titled *Labour Markets In an Era of Adjustment*.) In Ghana, also, relative wages and employment levels have risen in sectors producing tradeables. See Beaudry and Sowa, pp. 44-48.

⁸ For Côte d'Ivoire, see Kanbur, 1990; Ghanaian data from Boateng et al., 1990.

CHAPTER SIX

TRENDS IN PUBLIC EXPENDITURES

In this chapter, we look at total government spending and focus particularly on spending in the social sectors. Access to education and health care is crucial for movement out of poverty, which gives public spending on these services their strategic importance for poverty alleviation. The actual impact of education and health spending on the poor is of course determined not only by the absolute levels of spending, but also on how efficiently resources are used (in influencing outcomes) and on how equitably – in other words, the degree to which they benefit the poor.

On a priori grounds, and based on conventional wisdom, we should expect to see two central tendencies in public expenditure in Sub-Saharan Africa in the 1980s: a decline in aggregate public expenditure, both as a share of GDP and in real per capita terms; and a decline in public spending on education and health, also in shares of total public spending and in real per capita terms. A decline in overall public spending would be anticipated because revenues fell, or rose more slowly than in the 1970s, as a result of recession and depressed commodity prices; because the widespread adoption of stabilization programs entailed budgetary austerity; and because of state-shrinkage, which was a major objective of structural adjustment programs pursued by nearly two-thirds of Sub-Saharan Africa countries. In addition, the level of debt servicing grew over the decade, absorbing a greater share of total expenditure.¹ Thus, expectations about lowered public spending on education and health seem reasonable given the anticipated budget austerity.

Our objective is to review the data on public spending to see whether they confirm these expectations. Aggregate public expenditures are considered first, though briefly, because they are not central to the analysis. They are helpful mainly to assess whether adjustment programs and other factors have led to a reduction in the economic presence of African states in the 1980s. We then look at health and education expenditure. The efficiency and equity aspects of the issue will be addressed in Chapter Nine.

TOTAL PUBLIC EXPENDITURE²

Here, we attempt to answer the following two questions: Has the size of government declined over the 1980s? and What happened to total noninterest government expenditure? Answers to these questions will provide a background for assessing trends in social sector expenditures later in the chapter.

¹ Annex F-5 provides data on interest payments over the decade.

² All aggregate public expenditure figures in this chapter are given net of interest payments, unless indicated otherwise.

Shares of Government Spending in GDP

For reasons mentioned above, one would expect to see a downward trend in the government share of GDP. And indeed, when countries for which data are available over the decade are analyzed (Table 27), such a trend appears.

Of the 15 countries for which we have data in the early and late 1980s, 9 evidenced a decline, 4 showed a rise, and 2 showed no real change in the share of government expenditure in GDP. Sierra Leone experienced the most severe drop at 44 percent, but 7 others saw a drop of more than 15 percent.

Real Per Capita Public Expenditures

Data for average real per capita public expenditures are given in Table 28. Nine of the 16 countries having data in the early and late 1980s saw a reduction in per capita expenditure over the period, 6 saw an increase, and 1 saw no change. Therefore, real per capita public expenditure declined in a majority of countries in our sample.

SOCIAL SECTOR EXPENDITURES

Shares

Data on the share of education expenditures in government expenditures are presented in Table 29. Comparing the late 1980s with the early 1980s reveals that 15 of the 25 countries with data observed a decrease in the share of education expenditure. In a few, this decline was precipitous. Somalia's share dropped by 89 percent, Sierra Leone's by 70 percent, and Nigeria's by 66 percent. The 8 countries showing increasing shares over the 1980s experienced more modest changes. Cameroon fared best, with a rise of 28 percent. Ghana and Swaziland each increased shares by 20 percent. Two countries saw hardly any change over the decade. We see, therefore, that more than half of our sample spent a significantly smaller share of their budget on education in the late 1980s relative to the early 1980s.

There was no apparent trend in health shares (Table 30). Of the 23 countries with data for the early and late 1980s, 12 displayed declining health shares over this period. Somalia and Sierra Leone, in particular, suffered heavy cuts of 85 and 73 percent, respectively. Nigeria witnessed a drop of 41 percent, and Uganda one of 29 percent. Health shares increased significantly in 9 countries. Of particular interest, Zaire increased health shares by 63 percent over the decade. Health shares remained the same in the other 2 countries. Therefore, health shares increased or were maintained in about as many countries as they declined.

Table 31 reveals changes in government priority given to the health and education sectors between the early and late 1980s. A plus indicates an increase in priority over the decade, while a minus indicates a reduction. A zero indicates that government priority remained constant. Restating the trends in shares in terms of government priority indicates that education priority declined in the majority of cases while health priority evidenced no trend, falling in about as many countries as it rose or stayed the same.

TABLE 27

GOVERNMENT EXPENDITURES (NET OF INTEREST) AS A PERCENTAGE OF GDP

	Average 1980-82	Average 1987-89	Average 1990-92	% change (80-82)-(87-89)	% change (87-89)-(90-92)	% change (80-82)-(90-92)
BOTSWANA	35	30	34	-14	14	-1
BURKINA	16					
BURUNDI	22					
CAMEROON	19	19	20	1	7	8
DJIBOUTI	24					
ETHIOPIA	24	33		38		
GABON	37	28	29	-25	4	-22
GAMBIA	31		21			-31
GHANA	11	12		15		
GUINEA BISSAU						
KENYA	26	25	23	-6	-6	-12
LIBERIA	30	25		-18		
MALAWI	28	24	24	-14	2	-13
MALI	25	24		-1		
MAURITANIA		27				
MAURITIUS	25	21	22	-17	3	-15
NIGERIA		13				
SENEGAL	25					
SEYCHELLES		44				
SIERRA LEONE	26	15	14	-44	-1	-45
SUDAN	16					
SWAZILAND	30	21		-30		
TANZANIA	28					
TOGO	30	31		4		
UGANDA	8					
ZAIRE	5					
ZAMBIA	35	28		-20		
ZIMBABWE	31	39		27		

SOURCE: GFS YEARBOOK, VARIOUS YEARS

TABLE 28

REAL PER CAPITA GOVERNMENT EXPENDITURE (NET OF INTEREST), INDEXED
1980=100

	Average 1980-82	Average 1987-89	Average 1990-91	% change (80-82)-(87-89)	% change (87-89)-(90-91)	% change (80-82)-(90-91)
BOTSWANA	112	176	212	57	21	90
BURKINA	100	97		-4		
BURUNDI	110					
CAMEROON	128	121	126	-6	4	-1
ETHIOPIA	108	143		33		
GAMBIA	93					
GHANA	92	117		27		
KENYA	101	92		-9		
LIBERIA	101	72		-28		
MALAWI	87	75	77	-14	3	-12
MALI	75	76		1		
MAURITIUS	103	112	137	9	22	33
SIERRA LEONE	92	46	46	-50	1	-50
SWAZILAND	112	89		-21		
TANZANIA	100					
TOGO	91	82		-9		
ZAIRE	103	136		33		
ZAMBIA	101	65		-35		
ZIMBABWE	100	112		12		

SOURCE: GFS AND IFS YEARBOOKS, VARIOUS YEARS

TABLE 29

EDUCATION EXPENDITURE AS A PERCENTAGE OF GOVERNMENT EXPENDITURE (NET OF INTEREST)

	Average 1980-82	Average 1987-89	Average 1990-92	% change (80-82)-(87-89)	% change (07-89)-(90-92)	% change (80-82)-(90-92)
BOTSWANA	21	20	21	-3	5	2
BURKINA	16	15		-4		
BURUNDI (1)	20	21		7		
CAMEROON	10	13		28		
COMOROS		25				
COTE D'IVOIRE (2)	43	44		2		
ETHIOPIA	11	10		-7		
GAMBIA (3)	14	5	14	-62	148	-6
GHANA	23	28		20		
GUINEA BISSAU		4				
KENYA	22	26	25	16	0	15
LESOTHO (3)	13	15		14		
LIBERIA	16	14		-10		
MADAGASCAR (3)	14	14		-4		
MALAWI	13	14		4		
MALI	13	10		-22		
MAURITIUS	19	16	17	-17	6	-11
NIGER (3)	13	12		-5		
NIGERIA (3)	7	2		-66		
SENEGAL	21					
SIERRA LEONE (3)	13	4	13	-69	224	-1
SOMALIA (3)	6	1		-89		
SWAZILAND	22	26		20		
TANZANIA	14					
TOGO	22	20		-7		
UGANDA (3)	13	11		-12		
ZAIRE	11	9		-18		
ZAMBIA	14	9		-37		
ZIMBABWE (3)	18	20		14		

SOURCES:

1/ BURUNDI PUBLIC EXPENDITURE REVIEW, WORLD BANK, FEBRUARY 1992. SHARE OF RECURRENT EXPENDITURE ONLY.

2/ HUMAN RESOURCES DISCUSSION PAPER: REPUBLIQUE COTE D'IVOIRE, WORLD BANK, DECEMBER 1988. SHARE OF RECURRENT EXPENDITURE ONLY.

3/ AFRICAN DEVELOPMENT INDICATORS, UNDP/WORLD BANK, 1992. SHARE OF TOTAL EXPENDITURE MINUS LENDING & REPAYMENTS.

ALL OTHERS ARE FROM THE GFS YEARBOOK, VARIOUS YEARS. SHARE OF TOTAL EXPENDITURE MINUS INTEREST PAYMENTS

TABLE 30

HEALTH EXPENDITURE AS A PERCENTAGE OF GOVERNMENT EXPENDITURE (NET OF INTEREST)

	Average 1980-1982	Average 1987-89	Average 1990-92	% change (80-82)-(87-89)	% change (87-89)-(90-92)	% change (80-82)-(90-92)
BOTSWANA	6	6	5	11	-18	-10
BURKINA	6	6		-8		
BURUNDI (1)	5	5		-1		
CAMEROON	3	4		35		
COMOROS		7				
COTE D'IVOIRE (2)	8	7		-6		
DJIBOUTI	8					
ETHIOPIA	4	4		-8		
GAMBIA	8		8			-1
GHANA	8	10		26		
GUINEA BISSAU		4				
KENYA	8	7	7	-17	-2	-19
LIBERIA	7	6		-13		
MADAGASCAR (3)	4	5		33		
MALAWI	6	8		33		
MALI	4	3		-23		
MAURITIUS	9	10	10	11	4	16
NIGER (3)	3	4		37		
NIGERIA (3)	2	1		-41		
SENEGAL	5					
SIERRA LEONE (3)	6	2	10	-73	464	55
SOMALIA (3)	2	0		-85		
SWAZILAND	7	7		-2		
TANZANIA	6					
TOGO	6	5		-16		
UGANDA (3)	5	4		-29		
ZAIRE (3)	3	5		63		
ZAMBIA	7	6		-15		
ZIMBABWE (3)	6	7		13		

SOURCES:

1/ BURUNDI PUBLIC EXPENDITURE REVIEW, WORLD BANK, FEBRUARY 1992. SHARE OF RECURRENT EXPENDITURE ONLY.

2/ HUMAN RESOURCES DISCUSSION PAPER: REPUBLIQUE COTE D'IVOIRE, WORLD BANK, DECEMBER 1988. SHARE OF RECURRENT EXPENDITURE ONLY.

3/ AFRICAN DEVELOPMENT INDICATORS, UNDP/WORLD BANK, 1992. SHARE OF TOTAL EXPENDITURE MINUS LENDING & REPAYMENTS.

ALL OTHERS ARE FROM THE GFS YEARBOOK, VARIOUS YEARS. SHARE OF TOTAL EXPENDITURE MINUS INTEREST PAYMENTS

TABLE 31
TRENDS IN GOVERNMENT EXPENDITURE PRIORITY
 (1980-82) - (1987-89)

KEY:
 + = GREATER PRIORITY
 o = SAME PRIORITY
 - = LESSER PRIORITY

Country	Education	Health
Botswana	O	+
Burkina Faso	-	-
Burundi	+	O
Cameroon	+	+
Cote d'Ivoire	O	-
Ethiopia	-	-
Gambia	-	
Ghana	+	+
Kenya	+	-
Liberia	-	-
Madagascar	-	+
Malawi	+	+
Mali	-	-
Mauritius	-	+
Niger	-	+
Nigeria	-	-
Sierra Leone	-	-
Somalia	-	-
Swaziland	+	O
Togo	-	
Uganda	-	-
Zaire	-	+
Zambia	-	-
Zimbabwe	+	+

SOURCE: TABLES 29 AND 30

Real Per Capita Expenditures

As revealed in Table 32, the 1980s witnessed a decrease in real per capita spending on education. In the 23 countries for which data exists for 1980-82 and 1987-89, real spending rose in 7, declined in 15, and stayed the same in 1 country. In some countries, the declines were dramatic. Nigeria and Sierra Leone, for example, reduced education spending per capita by 70 percent over this period. Somalia lessened it by 82 percent. Thirteen of the 15 countries showing declines decreased spending by more than 10 percent. Of the 8 countries registering increases, 6 had gains of more than 10 percent. Cameroon raised per capita spending by an impressive 85 percent over the decade, Botswana raised it by 55 percent, and Ghana by 52 percent. Thus, while there is no overwhelming trend of declining per capita education expenditures, the majority of the countries in our sample had levels of expenditure lower in the late 1980s than in the early 1980s.

Real per capita health expenditure trends were similarly negative (Table 33). Twenty-three countries have data for both the early and late years of the 1980s. Of these 23, 10 registered increases in spending per capita and 13 registered declines. Somalia, in particular witnessed a severe drop of 80 percent over the decade. Also significant, Nigeria, Liberia, and Zambia saw declines of 52 percent, 41 percent, and 38 percent, respectively.

TRENDS IN THE EARLY 1990s

Trends of public expenditure measures in Africa are impossible to assess for the 1990s. Data are available for only a few of the expenditure measures, and, of these, for only a few countries. Nonetheless, the existing evidence is presented in the tables, and summarized below.

Compared with the late 1980s, the information we have for this period indicates that, for all expenditures but one, on balance expenditures increased. Relative to the early 1980s, the number of countries showing increases and decreases were about equal for real per capita total expenditure, education shares, and health shares.

SUMMARY

The data on the evolution of public expenditures point to a trend of falling or stagnant expenditure in all areas. The main points are as follows:

- Government noninterest spending as a share of GDP declined in the majority of countries in our sample during the 1980s; the size of government had generally decreased.
- Real per capita government expenditures declined in the majority of countries during the 1980s. How much may be attributed to an increase of more than a third in total population, general economic decline, or the widespread adoption of adjustment programs is hard to say.

TABLE 32

REAL PER CAPITA EDUCATION EXPENDITURE, INDEXED

1980=100

	Average 1980-82	Average 1987-89	Average 1990-91	% change (80-82)-(87-89)	% change (87-89)-(90-91)	% change (80-82)-(90-91)
BOTSWANA	102	158	199	55	27	96
BURKINA	104	96		-8		
CAMEROON	109	202		85		
ETHIOPIA	100	123		23		
GAMBIA (1)	103	42		-60		
GHANA	113	172		52		
KENYA	95	99		5		
LESOTHO (1)	98	127		30		
LIBERIA	92	56		-39		
MADAGASCAR (1)	108	67		-38		
MALAWI	97	87		-10		
MALI	139	101		-27		
MAURITIUS	100	101		1		
NIGER (1)	125	87		-30		
NIGERIA (1)	80	24		-70		
RWANDA (1)	85					
SIERRA LEONE (1)	86	26		-70		
SENEGAL	99					
SOMALIA (1)	92	17		-82		
SWAZILAND	87	80		-8		
TANZANIA	107					
TOGO	114	101		-11		
UGANDA (1)	157	139		-11		
ZAIRE (1)	86	39		-55		
ZAMBIA	108	50		-54		
ZIMBABWE (1)	106	136		29		

SOURCES:

1/ AFRICAN DEVELOPMENT INDICATORS, UNDP/WORLD BANK, 1992.

ALL OTHERS ARE FROM THE GFS AND IFS YEARBOOKS, VARIOUS YEARS.

TABLE 33

REAL PER CAPITA HEALTH EXPENDITURE, INDEXED
1980=100

	Average 1980-1982	Average 1987-89	Average 1990-91	% change (80-82)-(87-89)	% change (87-89)-(90-91)	% change (80-82)-(90-91)
BOTSWANA	97	170	167	75	-1	73
BURKINA	110	97		-12		
CAMEROON	117	141		21		
ETHIOPIA	96	116		22		
GAMBIA (2)	106	85		-20		
GHANA	100	159		59		
KENYA	95	71		-25		
LESOTHO (2)	97	313		223		
LIBERIA	89	52		-41		
MADAGASCAR (2)	130	111		-15		
MALAWI	98	110		11		
MALI	98	71		-28		
MAURITIUS	101	133		32		
NIGER (2)	104	100		-4		
NIGERIA (2)	91	43		-52		
RWANDA (2)	100					
SIERRA LEONE (2)	82					
SENEGAL	103					
SOMALIA (2)	92	19		-80		
SWAZILAND	112	124		10		
TANZANIA (1)	94	90		-5		
TOGO	104	84		-20		
UGANDA (2)	133	92		-31		
ZAIRE (2)	96	217		125		
ZAMBIA	113	70		-38		
ZIMBABWE (2)	98	127		30		

SOURCES:

1/TANZANIA: POPULATION, HEALTH AND NUTRITION SECTOR REVIEW, WORLD BANK, OCTOBER 1989.

2/ AFRICAN DEVELOPMENT INDICATORS, UNDP/WORLD BANK, 1992.

ALL OTHERS ARE FROM THE GFS AND IFS YEARBOOKS, VARIOUS YEARS.

- Education spending declined as a share of total expenditure and health shares evidenced no trend. Real per capita education and health expenditure declined.

Thus, we see a rather unfavorable evolution of public expenditure for Africa during the 1980s. The question then remains, did this hurt the welfare of the poor?

CHAPTER SEVEN

OUTCOMES: SOCIAL INDICATORS AND WELFARE MEASURES

We now move from poverty-related measures based on inputs (household income and consumption, and public expenditures on education and health), which are mainly monetary, to outcome measures, which are mainly real or physical indicators of social welfare. The indicators to be considered are a set of nutrition measures, infant mortality rates, child mortality rates, life expectancy, vaccination coverage, school enrollment ratios, student to teacher ratios, and illiteracy rates.

There is no need to repeat in detail well-known caveats about data reliability. The African data are weaker than those for Latin America, about which we stated many reservations earlier. However, these data are used in study after study and constitute the only internationally accepted database for comparisons of the types made here. Furthermore, because we are concerned with trends within countries and do not make any cross-country comparisons, the serious comparability problems that exist between countries are not a major concern.

As is true in Latin America, few African data directly trace changes in the welfare of the poorest segments of society. The only data that exist are averages for all income levels. But it is reasonable to assume that changes in outcome data averages are likely to affect those in poverty. Calorie consumption, child malnutrition, child mortality rates, school enrollment rates, and so forth are already favorable for the well-off; when averages improve it must reflect improvement among those lower down the income ladder. On the basis of this assumption we draw on national averages to make inferences about how living standards have evolved for the poor.

NUTRITIONAL STATUS

As noted in the Latin American discussion, three separate indicators are available to measure the evolution of nutritional status: calorie availability; prevalence of underweight children; and proportion of the population underfed. Estimates for Sub-Saharan Africa are particularly fragile. Some analysts argue that none of these indicators for this region merits much credibility, given the weakness and sparsity of the underlying data.¹

Calorie Availability

Calorie availability data are especially and often criticized as providing weak indicators of nutritional status. Not only are the food intake data on which the calorie data are based subject to large

¹ See for example, Peter Svedberg, "Undernutrition in Sub-Saharan Africa. A Critical Assessment of the Evidence," in J. Dreze and A. Sen, eds., *The Political Economy of Hunger*, Vol. III, Oxford University Press, 1991. Svedberg concludes that FAO and World Bank estimates of the level of malnutrition are too high and that all estimates have huge margins of error. He cites Michael Lipton's 1986 observation that for the main staples in the four largest countries (Nigeria, Zaire, Ethiopia, and Sudan) "we have no idea of the levels or trends in output or consumption over the past 5-20 years." For minor crops, which are important, nobody knows orders of magnitude about possible margins of error.

errors of observation, but they ignore differences by region, family size, and household income level. These factors plus the added uncertainties deriving from spoilage adjustments, unofficial or unrecorded imports, and food aid make estimates of food intake prone to large margins of error.

To emphasize this point, Table 34 shows trends in calorie consumption based on four different data sets, most of them derived from FAO sources. As is the case of Latin America, the data sets often evidence significant differences in absolute calorie availability for a given country and period, as well as in the percentage change over the decade. In most cases, however, the direction of the trend is consistent. For example, all of the data sets are in agreement that Burkina Faso, Mali, and Mauritania saw very high increases in calorie availability, while Angola, Madagascar, and Sudan saw significant declines. The data sets disagree about trend direction for several countries, most notably Chad and Senegal.

Taken together, these data do not show the general decline one would expect, given the incidence of drought and civil war over the decade and the region's generally poor performance in agriculture. Even by the least favorable set of numbers quoted in the U.N. Statistical Yearbook and FAO's Agrostat, calorie availability significantly declined in less than half the countries. The other two data sets show declines in fewer than a third of the countries. Therefore, the majority of countries have not seen declining calorie availability over the 1980s.

Prevalence of Underweight Children

The prevalence of underweight children, which is synonymous with child malnutrition, is the most revealing indicator of the nutrition status of the poor. This is so because it tracks only nutrition status of 0-4 year olds; hence it captures short-term changes in the environment. However, surveys are infrequent and often not completely comparable. Only 9 countries have survey data that meet United Nations' quality standards and definitions — for example, those in the Administrative Committee on Coordination, Subcommittee on Nutrition's Second Report on the World Nutrition Situation, and have these data for two points of time near the beginning and end of the 1980s. The limitations of these data for present purposes should not be overlooked. The sample size is small. The base and terminal dates cover our decade only approximately (for 7 of the 9 countries, the survey dates fall outside of the 1980s). The internal comparability of the surveys in the sample is limited: in two cases (Rwanda and Zambia): one survey is of rural people, the other national. In the case of Kenya, the first two surveys at least are rural only. Nonetheless, these are the most reliable figures available.

The outcomes shown in Table 35 are generally in line with those for calorie availability. The prevalence of child malnutrition increased in 4 countries, declined in 2, and demonstrated no significant change in 3. Therefore, a slight majority of the countries experienced no increase in the prevalence of child malnutrition. However, although the percentage of underweight children may not have declined, the absolute number of malnourished children may still have increased because of the rapid population growth over the decade.

Because time series survey data are available for only a handful of African countries, the UN/ACC/SCN modeled existing data to estimate trends in the prevalence of child malnutrition between 1980 and 1990. According to the regression estimates, 8 of 30 countries showed an increase in the prevalence of child malnutrition, 16 countries saw a decline, and 14 experienced no significant change. Therefore, the proportion of undernourished children increased in less than a quarter of the countries. But, for the region as a whole, the percentage of malnourished children crept up by 1 percent over the decade, translating into 8.3 million more malnourished children in 1990 than in 1980. On the basis of

TABLE 34

PER CAPITA DAILY CALORIE AVAILABILITY

	A		B		C		D		A	B	C	D
	World Bank BESD Data Tapes 1980-82	1987-88	FAO Production Yearbook 1979-81	1987-89	FAO Agrostat 1980	1990	FAO in UN Stastical Yearbook 1980	1990	% change (80-82)-(87-88)	% change (79-81)-(87-89)	% change 80-90	% change 80-90
Angola	2033	1750			2171	1807	2136	1877	-14		-17	-12
Benin	2045	2100	2122	2245	2100	2159	2079	2359	3	6	3	13
Botswana	2139	2243	2144	2368	2142	2375	2130	2272	5	10	11	7
Burkina Faso	1795	1973	1815	2286	2030	2288	1704	2137	10	26	13	25
Burundi	2372	2353	2058	1995	2304	1932	2039	1923	-1	-3	-16	-6
Cameroon	2126	2132	2215	2195		2217	2352	2201	0	-1	3	-6
Cape Verde	2415	2532	2551	2714			2593	2872	5	6		11
Central African Republic	2005	1958	2082	2004	2129	2036	2138	1867	-2	-4	-4	-13
Chad	1634	1808			1793	1743	1732	1641	11		-3	-5
Comoros	2086	2065	1824	1695			1781	1758	-1	-7		-1
Congo	2427	2523	2432	2603	2473	2590	2243	2321	4	7	5	3
Cote d'Ivoire	2517	2425	2695	2580	2611	2577	2860	2411	-4	-4	-1	-16
Ethiopia	1743	1697			1816	1667	1851	1694	-3		-8	-8
Gabon	2241	2399				2383	2381	2420	7			2
Gambia, The	2063	2328	2036	2351		2370	2071	2249	13	15		9
Ghana	1894	2146	1947	2246	1796	2248	1948	1974	13	15	25	1
Guinea	2032	1989	2243	2183	1776	2132	2224	2228	-2	-2	20	0
Guinea-Bissau	1896	2310					2001	2230	22			11
Kenya	2097	2038	2215	2158	2186	2163	2154	2048	-3	-3	-2	-5
Lesotho	2299	2259	2353	2326	2398	2299	2413	2100	0	-1	-4	-13
Liberia	2321	2381	2397	2404	2375	2382	2404	2067	3	0	0	-14
Madagascar	2378	2211	2454	2177	2515	2158	2483	2162	-7	-11	-14	-13
Malawi	2210	2082	2261	2098	2452	2139	2251	2042	-6	-7	-13	-9
Mali	1726	2080	1758	2234	1719	2314	1875	2233	20	27	35	19
Mauritania	1855	2433	2084	2599	2008	2685	2099	2469	24	25	34	15
Mauritius	2694	2696	2716	2823	2714	2887	2688	2894	0	4	6	8
Mozambique	1766	1590	1798	1665	1813	1680	1959	1803	-10	-7	-7	-8
Niger	2254	2311	2218	2297	2344	2308	2202	2263	3	4	-2	3
Nigeria	2227	2106	2308	2306	2253	2312	2157	2147	-5	0	3	0
Sao Tome and Principe	2219	2466	2247	2380			2085	2171	11	6		4
Senegal	2365	2249	2295	2412	2393	2369	2411	2328	-5	5	-1	-3
Seychelles	2150	2102	2290	2340			2271	2344	-2	2		3
Sierra Leone	2030	1816	2082	1841	2034	1799	2076	1940	-11	-12	-12	-7
Somalia	1812	1804	1942	1932	2082	1906	1911	1830	0	-1	-8	-4
Sudan	2235	1973	2309	2028	2353	1974	2274	1964	-12	-12	-16	-14
Swaziland	2484	2558	2483	2612			2591	2648	3	5		7
Tanzania	2226	2203	2248	2209	2461	2208			-1	-2	-10	
Togo	2145	2098	2222	2141	2218	2214	2245	2279	-2	-4	0	2
Zaire	2065	2112	2109	2061	2124	1991	2142	2094	2	-2	-6	-2
Zambia	2137	2028	2204	2054	2227	2077	2197	2019	-5	-7	-7	-8
Zimbabwe	2167	2174	2212	2288	2119	2299	2181	2247	0	3	8	3

SOURCE: World Bank BESD Data Tapes, FAO Production Yearbook, 1991, FAO Agrostat, and UN Statistical Yearbook

TABLE 35
NATIONAL PREVALENCE OF UNDERWEIGHT CHILDREN

Country	Survey Year	% Children Underweight (2)	Trend
Cameroon	1977-78	17	Stable
	1991	14	
Ethiopia	1983	43	Rising
	1992	47	
Kenya	1982 (1)	22	Falling then Rising
	1987 (1)	18	
	1993	23	
Madagascar	1984	33	Rising
	1992	39	
Malawi	1981	24	Rising
	1992	28	
Rwanda	1976	28	Stable
	1985 (1)	28	
	1992	29	
Togo	1977	21	Stable
	1988	24	
Zambia	1985 (1)	21	Rising then Stable
	1988	26	
	1992	25	
Zimbabwe	1984	21	Falling
	1988	10	

NOTES:
 (1) Rural Sample
 (2) < -2 standard deviations weight for age (0-59 months)
 SOURCE: ACC/SCN 1993

this analysis, the report concludes (Vol. I, p. 10): "Nutrition in Sub-Saharan Africa probably deteriorated on average during the 1980's."

This may be so. But according to the definition of statistical significance given by the authors of the report themselves, this conclusion is not warranted. They say that annual changes smaller than 0.4 percent (4 percent per decade) cannot be taken as significant. Yet the changes in child malnutrition in question amounted to 1 percentage point for the decade as a whole.

Moreover, the general conclusion is heavily shaped by results for Nigeria, for which the regression results indicate a 5 percent increase in child malnutrition. Given Nigeria's population, (20 percent of the continent's total), this change alone accounts for the stated regional increase. Even if the Nigerian estimate is true, it distorts the continent-wide picture to give it so much weight. And in any case, the statistical confidence that can be given to the Nigeria results seems low. For example, the margin of error in production of root crops, an important variable in the model, is without question extremely large.²

Proportion of Underfed People

The population underfed is an FAO concept defined as the number and proportion of people whose average annual food consumption is inadequate to support more than light activity (defined as 1.54 times the Base Metabolic Rate), and maintain body weight. The FAO now calculates these estimates annually.

According to these estimates, a third of the people of SSA are underfed.³ More pertinent for present purposes, the FAO estimates that the underfed population in Africa increased from 130 million in 1980 to 170 million in 1990.⁴

It's not possible to assess the quality of these estimates because the supporting evidence and analysis is too sparse. The methodology is described in Volume II of the ACC/SCN Second Report on the World Nutrition Situation (pp. 111-114), but these leave much in the shadows. No country-by-country data are presented, for example; only regional averages are given.

The evidence on changes in nutrition status in the 1980s is therefore mixed. The calorie availability data are positive; they show declines in fewer than half the countries of the region. The prevalence of child malnutrition (low weight for age) show similar results. However, the total number of malnourished children may have increased for the region as a whole because of high population growth in some countries. And according to the United Nations ACC/SCN the number of underfed people has increased, but these results are very rough estimates at best and are not derived in a wholly transparent fashion.

² Svedberg, *ibid.*

³ They are published in different forms and different places. See FAO/WHO, "International Conference on Nutrition. World Declaration and Plan of Action," Rome, 1992.

⁴ UN ACC/SCN, *Second Report on the World Nutrition Situation*, 1992, Vol. I, Geneva, 1992, p. 18.

SEYCHELLES		44				
SIERRA LEONE	26	15	14	-44	-1	-45
SUDAN	16					
SWAZILAND	30	21		-30		
TANZANIA	28					
TOGO	30	31		4		
UGANDA	8					
ZAIRE	5					
ZAMBIA	35	28		-20		
ZIMBABWE	31	39		27		

SOURCE: GFS YEARBOOK, VARIOUS YEARS

INFANT MORTALITY RATES

Data on the infant mortality rate come from the World Bank social indicators database (Table 36). As discussed in the Latin America section, infant mortality rates are a widely available, and thus popular, indicator of living standards. The trend in infant mortality between the early and late 1980s is overwhelmingly positive. Thirty-eight of 41 countries with data saw declines, 2 saw virtually no change, and only 1 saw an increase. Lesotho's improvement of 73 percent was especially noteworthy.

CHILD MORTALITY RATES

The child mortality rate data come from the database and from estimates compiled by the United Nations. In comparison with Latin America, the African CMR data are less comprehensive. The U.N. data, according to the survey authors, vary greatly in quality and, after the 1975-80 period, consist mostly of projections. The World Bank data cover only 1987-91. Taking these limitations into consideration, we rely mainly on the United Nations' survey results because they are the most comprehensive; they are supplemented by figures from the World Bank for the late 1980s.

The story told by the United Nations data presented in Table 37 is unambiguously positive: during the 1980s, child mortality rates dropped in all 42 countries included in the data set. Even more impressive, there was a significant acceleration in the rate at which child mortality rates decreased. In only 4 out of 42 countries did child mortality rates drop at a lower rate over the 1980s compared with the previous decade. The overall 42-country CMR average dropped by 9.3 percent between the first and second half of the 1980s, up slightly from an 8 percent decrease during the previous decade. Most impressively, 13 countries experienced declines of more than 10 percent during the decade.

If we take the percentage change between the period averages 1980-85 (using U.N. data) and 1987-89 (using World Bank data), a slightly less favorable picture emerges. Comparing these data sets, child mortality appears to have risen in 4 of the 40 countries with data and declined in 35. The remaining country experienced a change of only 1 percent, which was probably insignificant. These findings must be interpreted with caution because the time periods compared come from different sources that undoubtedly used different estimating techniques.

LIFE EXPECTANCY

Life expectancy data are from the World Bank *World Tables*.⁵ Because trends in life expectancy reflect closely changes in the CMR data, they can be used as a complementary or fill-in indicator when the latter have gaps. Africa's relative status and performance regarding life expectancy levels and changes

⁵ Life expectancy is defined there as "the number of years a newborn infant would live if prevailing patterns of mortality for all people at the time of his or her birth were to stay the same throughout his or her life." World Bank, *World Tables*, 1991, p. xvi.

SOURCE: GFS AND IFS YEARBOOKS, VARIOUS YEARS

TABLE 36

INFANT MORTALITY RATES
PER 1000 LIVE BIRTHS

	Average 1980-82	Average 1987-89	Average 1990-91	% change (80-82)-(87-89)	% change (87-89)-(90-91)	% change (80-82)-(90-91)
Angola	151	135	128	-11	-5	-15
Benin	122	115	112	-6	-3	-8
Botswana	56	40	37	-28	-9	-35
Burkina Faso	152	137	134	-10	-2	-12
Burundi	120	111	108	-8	-3	-10
Cameroon	91	71	65	-21	-9	-28
Cape Verde	67	51	44	-23	-14	-34
Central African Repu	116	108	106	-7	-2	-9
Chad	145	130	125	-10	-4	-14
Comoros	111	97	91	-13	-6	-18
Congo	124	118	116	-5	-2	-7
Cote d'Ivoire	108	97	95	-10	-2	-12
Djibouti	134	120	114	-11	-5	-15
Ethiopia	157	135	131	-14	-3	-17
Gabon	114	101	96	-11	-5	-16
Gambia, The	157	141	135	-10	-4	-14
Ghana	99	88	84	-11	-5	-15
Guinea	159	143	137	-10	-4	-14
Guinea-Bissau	166	150	148	-9	-1	-11
Kenya	82	71	68	-14	-4	-18
Lesotho	323	87	82	-73	-6	-75
Liberia	156	140	135	-10	-4	-13
Madagascar	134	119	115	-12	-3	-14
Malawi	166	149	146	-10	-2	-12
Mali	182	168	164	-8	-3	-10
Mauritania	139	125	120	-10	-4	-14
Mauritius	30	23	20	-24	-13	-34
Mozambique	154	153	150	-1	-2	-3
Niger	148	133	127	-10	-4	-14
Nigeria	98	86	85	-11	-2	-13
Senegal	100	86	82	-14	-4	-18
Sierra Leone	169	152	146	-10	-4	-14
Somalia	144	131	129	-9	-2	-11
Sudan	121	106	102	-12	-4	-16
Swaziland	131	116	111	-12	-4	-15
Tanzania	120	115	115	-4	0	-4
Togo	107	92	88	-14	-5	-18
Uganda	116	116	118	0	1	2
Zaire	112	107	97	-5	-9	-13
Zambia	90	101	105	12	5	17
Zimbabwe	81	51	48	-38	-5	-41

SIERRA LEONE (3)	13	4	13	-69	224	-1
SOMALIA (3)	6	1		-89		
SWAZILAND	22	26		20		
TANZANIA	14					
TOGO	22	20		-7		
UGANDA (3)	13	11		-12		
ZAIRE	11	9		-18		
ZAMBIA	14	9		-37		
ZIMBABWE (3)	18	20		14		

SOURCES:

1/ BURUNDI PUBLIC EXPENDITURE REVIEW, WORLD BANK, FEBRUARY 1992. SHARE OF RECURRENT EXPENDITURE ONLY.

2/ HUMAN RESOURCES DISCUSSION PAPER: REPUBLIQUE COTE D'IVOIRE, WORLD BANK, DECEMBER 1988. SHARE OF RECURRENT EXPENDITURE ONLY.

3/ AFRICAN DEVELOPMENT INDICATORS, UNDP/WORLD BANK, 1992. SHARE OF TOTAL EXPENDITURE MINUS LENDING & REPAYMENTS.

ALL OTHERS ARE FROM THE GFS YEARBOOK, VARIOUS YEARS. SHARE OF TOTAL EXPENDITURE MINUS INTEREST PAYMENTS

TABLE 37

CHILD MORTALITY RATES

PER 1000 BIRTHS

	United Nations Data 1980-85	United Nations Data 1985-90	World Bank Data 1987-89	World Bank Data 1990-91	% change UN - UN (80-85)-(85-90)	% change UN - WB (80-85)-(87-89)	% change WB - WB (87-89)-(90-91)
Angola	251	232	219	214	-8	-13	-2
Benin	202	184	164	166	-9	-19	1
Botswana	106	92	47	40	-13	-56	-15
Burkina Faso	254	235	200	199	-7	-21	-1
Burundi	209	191	177	179	-9	-15	1
Cameroon	170	153	126	121	-10	-26	-4
Cape-Verde	104	86	51	50	-17	-51	-2
Central Africa	240	223	166	129	-7	-31	-22
Chad	241	223	210	208	-7	-13	-1
Comoros	142	127	131	128	-11	-8	-2
Congo	129	115	178	168	-11	38	-6
Côte d'Ivoire	165	148	135	154	-10	-18	14
Djibouti			193	189			-2
Equatorial Gui	232	214			-8		
Ethiopia	262	252	196	195	-4	-25	-1
Gabon	186	169	158	154	-9	-15	-3
Gambia	302	281	231	227	-7	-24	-2
Ghana	161	145	136	131	-10	-16	-4
Guinea	269	249	233	227	-7	-13	-3
Guinea-Bissa	241	223	251	249	-7	4	-1
Kenya	128	113	105	105	-12	-18	0
Lesotho	152	135	134	157	-11	-12	17
Liberia	224	206	181	218	-8	-19	20
Madagascar	104	90	169	165	-13	63	-2
Malawi	287	263	249	195	-8	-13	-22
Mali	312	291	224	193	-7	-28	-14
Mauritania	232	214	204	199	-8	-12	-2
Mauritius	36	28	25	25	-22	-31	0
Mozambique	262	241	205	280	-8	-22	37
Niger	246	228	216	320	-7	-12	48
Nigeria	191	173	161	186	-9	-16	16
Rwanda	223	205			-8		
Sao Tome and Principe							
Senegal	240	222	129	150	-8	-46	16
Seychelles							
Sierra Leone	312	291	249	359	-7	-20	44
Somalia	262	252	212	210	-4	-19	-1
Sudan	198	175	169	166	-12	-15	-2
Swaziland	190	173	147	144	-9	-23	-2
Tanzania	192	174	193	162	-9	1	-16
Togo	168	152	142	140	-10	-15	-1
Uganda	186	169	196	185	-9	5	-6
Zaire	178	161	152	150	-10	-15	-1
Zambia	142	127	131	176	-11	-8	34
Zimbabwe	128	113	72	57	-12	-44	-21

is poor: life expectancy there is the lowest in the world, and rates of increase lag other regions despite the fact most African states are starting from relatively low bases.⁶

Nonetheless, Sub-Saharan Africa has witnessed a continual improvement in life expectancies throughout the 1980s (see Table 38). Life expectancies rose between the early and late 1980s in 33 of 42 countries for which we have data and remained virtually the same in the other 9.

VACCINATION COVERAGE

Vaccination information comes from the World Health Organization's Expanded Program on Immunization (WHO/EPI) and are given in Table 39. The data are reported coverage rates for children under the age of one. Data are collected for DPT 3, Measles, BCG, and Polio 3 vaccinations. Although mortality and morbidity data for infectious diseases would be more suitable as an outcome indicator, these data are unavailable. In their place, vaccination data are a good proxy.⁷

The EPI, which began in the mid-1970s, has led to greatly increased levels of immunization. Although universal immunization had not been reached by 1990, rates of immunization improved substantially through the 1980s.

Because each year a whole new population of newborns must be covered, extrapolating from one year to the next can be misleading. Despite this problem, the 1980s show a clear increase in the coverage of each of the vaccines. This is particularly true for the late 1980s when nearly all countries rapidly expanded their coverage rates. Of the 35 countries for which we have data from both the early and late years of the 1980s, only 3 experienced a downward trend in vaccination coverage rates. The other 32 countries show significant improvements in coverage over the decade.

⁶ van der Gaag et al., 1991.

⁷ One possible difficulty with using infant vaccination rates as an indicator of overall mortality and morbidity is the possibility that vaccines only postpone death for a short time and that other illnesses will replace the targeted disease, lessening or erasing the effects of the vaccine. This phenomenon is sometimes referred to as "replacement mortality." However, Kenneth Hill and Anne Pebley ("Child Mortality in the Developing World," in *Population and Development Review*, Vol. 15, No. 4, 1989, pp. 677-681) found little evidence to justify this concern. To the contrary, increased coverage of measles appears to have a synergistic effect, reducing not only the mortality effect of the disease targeted, but of other illnesses as well.

TABLE 38

LIFE EXPECTANCY RATES

	Average 1980-82	Average 1987-89	Average 1990-91	% change (80-82)-(87-89)	% change (87-89)-(90-91)	% change (80-82)-(90-91)
Benin	48	50	51	6	0	6
Bostwana	62	67	68	7	1	8
Burkina Faso	45	47	48	5	1	7
Burundi	48	48	48	2	0	1
Cameroon	51	54	55	7	2	9
Cape-Verde	63	66	67	5	1	6
Central African Republic	46	48	47	3	-1	3
Chad	43	46	47	8	2	10
Comoros	52	54	55	5	2	7
Congo	50	52	52	4	0	3
Côte d'Ivoire	50	52	52	4	0	3
Equatorial Guinea	43	46	47	6	2	9
Ethiopia	43	47	48	10	2	12
Gabon	49	52	53	7	2	10
Gambia	41	44	44	8	1	9
Ghana	52	54	55	5	1	6
Guinea-Bissau	40	43	43	7	2	9
Kenya	55	58	59	5	1	6
Lesotho	52	55	56	6	2	8
Liberia	51	54	55	5	2	7
Madagascar	50	51	51	1	1	3
Malawi	45	46	45	3	-2	1
Mali	45	47	48	6	1	7
Mauritania	44	46	47	6	2	8
Mauritius	66	69	70	4	1	5
Mozambique	44	47	47	6	0	6
Niger	42	45	46	6	2	8
Nigeria	48	51	51	5	1	7
Rwanda	46	47	47	2	-1	1
Sao Tome and Principe	63	66	67	4	2	6
Senegal	45	47	47	4	1	5
Seychelles	69	70	71	2	1	3
Sierra Leone	39	41	42	7	2	9
Somalia	45	48	48	7	2	9
Sudan	47	50	51	6	2	8
Swaziland	52	56	57	7	2	8
Tanzania	51	52	51	2	-1	1
Togo	50	53	54	6	1	8
Uganda	48	48	47	-1	-2	-3
Zaire	50	52	52	5	0	5
Zambia	50	52	49	3	-5	-2
Zimbabwe	55	62	61	12	-2	9

TABLE 39

VACCINATION RATES

	Average 1980-82	Average 1987-89	Average 1990-92	% change (80-82)-(87-89)	% change (87-89)-(90-92)	% change (80-82)-(90-92)
Angola	11	29	31	164	7	182
Benin	24	42	74	75	79	214
Botswana	70	78	83	11	6	18
Burkina Faso	11	46	53	329	14	390
Burundi	35	72	85	108	17	143
Cameroon	12	41	50	232	22	304
Cape Verde		88	88		0	
Central African Rep.	17	38	68	122	82	304
Chad		23	29		24	
Comoros		77	93		22	
Congo	56	73	77	30	6	37
Cote d'Ivoire	38	47	51	23	8	33
Equatorial Guinea			37			
Ethiopia	6	22	41	248	89	558
Gabon		70	81		16	
Gambia, The	80	85	92	7	9	16
Ghana	25	57	55	131	-4	121
Guinea	46	12	41	-74	243	-10
Guinea-Bissau	23	63	63	179	0	178
Kenya			75			
Lesotho	60	78	78	30	0	30
Liberia	56	41	39	-28	-4	-30
Madagascar	21	39	47	84	19	119
Malawi	63	82	85	31	4	36
Mali	19	28	49	50	73	158
Mauritania	35	50	44	44	-12	27
Mauritius	74	88	89	18	1	20
Mozambique	36	44	52	24	18	46
Niger	15	18	24	24	32	64
Nigeria	35	32	39	-9	23	11
Rwanda	31	81	86	160	6	175
Sao Tome and Principe	45	77	70	70	-8	56
Senegal		72	64		-10	
Seychelles	31	94	91	200	-3	192
Sierra Leone	22	44	73	103	67	239
Swaziland	35	90		155		
Tanzania	62	85	84	37	-1	35
Togo	35	62	61	76	-3	71
Uganda	11	51	80	360	57	630
Zaire	23	43	40	89	-8	73
Zambia	54	79	76	46	-4	41
Zimbabwe	49	73	76	49	4	58

PRIMARY NET ENROLLMENT RATIOS

The data on enrollment ratios come from the UNESCO *Statistical Yearbook*. The data for gross enrollments are much more complete than those on net enrollments. But we analyzed only net enrollments here, because changes in gross enrollments are subject to conflicting interpretations.⁸

As shown in Table 40, the trends are mostly positive, with more countries registering improvements in their enrollment ratios than declines for the 1980s. Of the 19 Sub-Saharan Africa countries for which any data exist for the early and late 1980s, 11 increased net enrollment ratios significantly, 5 decreased them, and there was virtually no change in the remaining 3. Burkina Faso manifested the most impressive increase at 45 percent over the early 1980s. Also noteworthy were Botswana's increase of 28 percent and Senegal's increase of 25 percent.

PRIMARY STUDENT-TEACHER RATIOS

Data for primary student-teacher ratios come from the World Bank social indicators database. In the face of perceived falling educational budgets, one concern is that educational quality may decline. As discussed in the Latin American section, the average number of students to a teacher is a proxy for educational quality, although a weak one — the lower this ratio, the higher the quality of education.

Figures spanning the decade are available for 36 countries (Table 41). Of these, 12 decreased the ratio by the end of the 1980s, while 11 increased it. Twelve evidenced probably insignificant changes of only a few percent. Ethiopia recorded the most impressive decline, at 28 percent. Other noteworthy declines were found in Tanzania (20 percent), Benin (18 percent), Mozambique (18 percent), and Burundi (17 percent). Of the 11 countries in which student-teacher ratios significantly increased over the 1980s, Burundi's ratio climbed the most dramatically. In this country, the ratio in the late 1980s was 72 percent higher than the ratio that prevailed in the early 1980s. Also significant, CAR, The Gambia, and Senegal all had ratios at least 20 percent higher at the end of the decade.

ILLITERACY RATES

The illiteracy rate, already defined in Chapter Four, is a particularly limited indicator. Measurement is indirect and subjective.⁹ The data for Sub-Saharan Africa are nonetheless coherent; they

⁸ Gross enrollment ratios give the number of enrolled students at a given level as a percentage of the total population in the relevant age category. Net enrollments use the same denominator, but adjust the numerator to eliminate students whose age exceeds the "normal" range for the given level. Interpreting gross enrollment ratios is a delicate undertaking. Reductions in ratios that exceed 100 percent are likely indicators of increasing efficiency (as repetitions are being eliminated). Increases in gross enrollment ratios below 100 percent can be indicative of either an extension of the reach of the educational system (if the increase comes from rising enrollments among previously nonscholarized children) or a deterioration in educational quality (if the increase comes from rising repetition rates). For these reasons we focus only on net enrollment ratios, despite the scarcity of data.

⁹ World Bank, *Social Indicators of Development 1990*, Johns Hopkins University Press, 1991.

TABLE 40

NET PRIMARY SCHOOL ENROLLMENT RATIOS

	Average 1980-82	Average 1987-89	Average 1990-91	% change (80-82)-(87-89)	% change (87-89)-(90-91)	% change (80-82)-(90-91)
Angola	68					
Benin		49				
Botswana	76	97	97	28	0	28
Burkina Faso	19	28	29	45	5	53
Burundi	23					
Cameroon		76				
Cape-Verde	87	96		10		
CAR	58	51		-13		
Chad		38				
Comoros						
Côte d'Ivoire			52			
Djibouti		37	37		0	
Ethiopia		28				
Gambia	53	53	52	-1	-2	-2
Guinea		25				
Guinea-Bissau	57	45		-21		
Kenya	80					
Lesotho	69	72	70	5	-3	2
Madagascar		73				
Malawi	44	48	48	10	1	10
Mali	17	18	17	4	-6	-2
Mauritania						
Mauritius	93	95	91	2	-4	-2
Mozambique	40	45	44	10	-1	9
Niger	21	24	25	14	4	19
Rwanda	60	67	67	12	0	12
Senegal	39	49		25		
Somalia	16					
Swaziland	84	82	87	-3	6	3
Tanzania	65	51	51	-21	-2	-22
Togo	78	72	76	-7	5	-2
Uganda	39					
Zaire	75	58		-23		
Zambia	77	81		5		
Zimbabwe	100					

TABLE 41

PRIMARY SCHOOL STUDENT-TEACHER RATIO

	Average 1980-82	Average 1987-89	1990	% change (80-82)-(87-89)	% change (87-89)-(90)	% change (80-82)-(90)
Angola	34	33	32	-3	-3	-7
Benin	41	34	35	-17	1	-16
Botswana	32	32	32	0	-2	-2
Burkina Faso	58	59	57		-4	-3
Burundi	41	70	67	72	-5	63
Cameroon	50	51		2		
Cape Verde	40	33		-17		
Central African Republic	61	75		23		
Chad		68				
Comoros	42	36		-13		
Congo	57	65	66	14	2	16
Cote d'Ivoire	37	37	36	-2	-1	-2
Djibouti	46	45	43	-1	-6	-7
Ethiopia	62	44	36	-28	-19	-42
Gabon	45	46		3		
Gambia	23	29		26		
Ghana	28	26	29	-10	13	3
Guinea	33	39	40	17	2	20
Guinea-Bissau	23	25		10		
Kenya	37	33	31	-10	-6	-15
Lesotho	50	56	55	13	-2	10
Liberia	16					
Madagascar	41	40	40	-3	1	-2
Malawi	65	64		-1		
Mali	40	38	42	-4	9	5
Mauritania	43	49		14		
Mauritius	20	22	21	7	-4	3
Mozambique	70	58		-18		
Niger	41	41	42	-2	4	2
Nigeria	37	38	41	3	7	9
Senegal	44	54		23		
Sierra Leone	34	32	34	-5	6	0
Somalia	28					
Sudan	33		34			2
Swaziland	34	33	33	-3	0	-3
Tanzania	42	33	35	-20	6	-16
Togo	52	54	59	4	9	14
Uganda	35	34		-2		
Zaire						
Zambia	48	45		-7		
Zimbabwe	44	39	36	-12	-7	-18

show an unambiguous improvement from 1980 to 1990 (see Table 42). Between 1980 and 1990, illiteracy rates significantly dropped in all 12 countries for which we have data.

TRENDS IN THE EARLY 1990s

Unlike public expenditures, data exists for most of the social indicators in the early 1990s. The trends evidenced by all of them are the same: social indicators significantly improved or stayed virtually the same in the majority of countries. There is not a single indicator that shows general declines in the 1990s.

Compared with the late 1980s, social indicators generally did not change. With respect to child mortality rates, life expectancy, and student-teacher ratios, equal numbers of countries improved and worsened, but the majority more or less stagnated. Infant mortality rates and net primary enrollment ratios evidenced a greater number of countries improving than worsening, but, still, the majority experienced no real change. It is significant, however, that no indicator worsened compared with the late 1980s.

The majority of social indicators examined improved relative to the early 1980s. Improvements outweighed deteriorations in infant mortality, life expectancy, and net primary enrollment ratios. With respect to student-teacher ratios, equal numbers of countries improved and worsened but the majority were stable. As was true in comparisons with the late 1980s, no indicator generally deteriorated.

SUMMARY OF THE EMPIRICAL EVIDENCE FOR AFRICA

The following are the main points from the discussion in Chapters Five to Seven of the empirical evidence on trends in poverty indicators in Africa. Most of these points are summarized in Tables 43 and 44.

- Money income indicators (real per capita private consumption and real minimum wages) show distinctly negative trends during the 1980s; they fell in a clear majority of countries. Salary *rates* of civil servants also fell sharply, but limited earnings data show much less pronounced declines.
- Public spending on education and health also evolved unfavorably. The majority of the countries for which we have data registered declines in real per capita expenditure on education and health, as well as in education shares. Health shares showed no clear trend.

TABLE 42

ILLITERACY RATES

TOTAL X % OF POPULATION AGE 15+

	1980	1985	1990	% Change 1980-85	% Change 1985-90	% Change 1980-90
Angola		64	58		-9	
Benin (1)	84	81	77	-3	-6	-9
Botswana		30	26		-12	
Burkina Faso		86	82		-4	
Burundi	73	58	50	-21	-14	-32
Cameroon		52	46		-12	
Cape Verde	53					
Central African Repub	67	69	62	2	-9	-7
Chad		77	70		-9	
Comoros	52					
Congo		48	43		-10	
Cote d'Ivoire	65	51	46	-21	-10	-29
Gabon		44	39		-10	
Gambia, The	80	80	73	0	-9	-9
Ghana		47	40		-16	
Guinea		83	76		-9	
Guinea-Bissau (1)	80	70	64	-13	-9	-21
Kenya	53	35	31	-34	-11	-41
Lesotho		26				
Liberia	75	68	61	-9	-11	-19
Madagascar		23	20		-14	
Malawi		59				
Mali		77	68		-12	
Mauritania		73	66		-9	
Mauritius		17				
Mozambique	73	72	67	-1	-7	-8
Niger		79	72		-9	
Nigeria		57	49		-14	
Rwanda (2)	62	53	50	-15	-6	-19
Senegal		68	62		-9	
Sierra Leone		87	79		-9	
Somalia		83	76		-9	
Sudan		76	73		-4	
Swaziland		32				
Togo	82	62	57	-24	-9	-31
Uganda		57	52		-10	
Zaire		34	28		-17	
Zambia	48	33	27	-31	-17	-43
Zimbabwe		38	33		-12	

1/ 1979 INSTEAD OF 1980

2/ 1978 INSTEAD OF 1980

SOURCE: WORLD BANK SOCIAL INDICATORS OF DEVELOPMENT, DATA ON DISKETTE

TABLE 43

INDICATORS OF POVERTY AND SOCIAL WELFARE

	Real Private Cons/Cap Indexed		Real Min Wage Indexed		Prevalence Underweight Children		CMR per 1000 births		Life Expectancy Years		Vaccination Rate		Net Enrolment Ratio		Illiteracy Rate	
	Early 80s	Late 80s	Early 80s	Late 80s	Early 80s	Late 80s	Early 80s	Late 80s	Early 80s	Late 80s	Early 80s	Late 80s	Early 80s	Late 80s	Early 80s	Late 80s
Angola							251	232			11	29	68			58
Benin	106	83	92	88			202	184	48	50	24	42		49	84	77
Botswana	106	87					106	92	62	67	70	78	76	97		26
Burkina Faso	101	98	97	90			254	235	45	47	11	46	19	28		82
Burundi	101	103					209	191	48	48	35	72	23		73	50
Cameroon	105	109	70	108	17	14	170	153	51	54	12	41		76		48
Cape-Verde	102	125					104	86	63	66		88	87	96	53	
CAR	93	87	86	55			240	223	46	48	17	38	58	51	67	62
Chad			92	84			241	223	43	46		23		38		70
Comoros							142	127	52	54		77			52	
Congo	126	118	87				129	115	50	52	56	73				43
Côte d'Ivoire	108	89	102	87			165	148	50	52	38	47			65	46
Djibouti														37		
Eq. Guinea							232	214	43	46						
Ethiopia	101	89	94	77	43	47	262	252	43	47	6	22		28		
Gabon	103	83	97	96			186	169	49	52		70				39
Gambia	77	73	97				302	281	41	44	80	85	53	53	80	73
Ghana	97	86	111	143			161	145	52	54	25	57				40
Guinea			93				269	249			46	12		25		76
Guinea-Bissau	118	144					241	223	40	43	23	63	57	45	80	64
Kenya	101	98	88	65	22	18	128	113	55	58			80		53	31
Lesotho	104	108					152	135	52	55	60	78	69	72		
Liberia	113	111	94	83			224	206	51	54	56	41			75	61
Madagascar	93	85	90	65	33	39	104	90	50	51	21	39		73		20
Malawi	97	108	129	109	24	28	287	263	45	46	63	82	44	48		
Mali	102	102	117	145			312	291	45	47	19	28	17	18		68
Mauritania	108	124	92	59			232	214	44	46	35	50				66
Mauritius	97	141	91	78			38	28	66	69	74	88	93	95		
Mozambique	95	82					262	241	44	47	36	44	40	45	73	67
Niger	99	71	97	80			246	228	42	45	15	18	21	24		72
Nigeria	100	93	129				191	173	48	51	35	32				49
Rwanda	97	89	92		28	29	223	205	46	47	31	81	50	67	62	50
Sao Tome	81	60	92						63	66	45	77				
Senegal	105	101	99	79			240	222	45	47		72	39	49		62
Seychelles	114	140							69	70	31	94				
Sierra Leone	101	86					312	291	39	41	22	44				79
Somalia	108	94	90	16			262	252	45	48			16			76
Sudan	103	105	81				198	175	47	50						73
Swaziland	105						190	173	52	56	35	90	84	82		
Tanzania	93	99	98	61			192	174	51	52	62	85	65	51		
Togo	106	119	93	73	21	24	168	152	50	53	35	62	78	72	82	57
Uganda							186	169	48	48	11	51	39			52
Zaire	96	84					178	161	50	52	23	43	75	58		28
Zambia	98	105	94		21	28	142	127	50	52	54	79	77	81	48	27
Zimbabwe	107	79	113	123	21	10	128	113	55	62	49	73	100			33

SEE PREVIOUS TABLES

BEST AVAILABLE DOCUMENT

- Social indicators, which measure outcomes, show substantially improved welfare levels in most dimensions:
 - All of the 42 countries in the U.N. sample experienced an improvement in their child mortality rates. With infant mortality, 38 saw improvement and only 1 saw an increase. The data for life expectancy confirm this picture of improving levels of health, as they, too, improved in 33 of 42 countries with no cases of decline.
 - Vaccination coverage rates exhibited a similar widespread improvement. Only 3 of 32 countries failed to improve their infant vaccination rates for four major types of vaccines. Liberia, one of these three, was plagued by severe civil strife at the decade's end, which rendered the efficient distribution of vaccine impossible.
 - Although the sample is small, the data on literacy rates also indicate a universal improvement as they progressed in all 12 countries in the sample.
 - Primary net enrollment ratios also showed an improvement in 11 of 19 countries, and a decline in only 5.
 - The only outcome indicators not showing an overwhelming improvement over the 1980s are per capita calorie availability, child malnutrition, and primary student-teacher ratios. However, no noticeable deterioration was indicated, either: calorie availability and student-teacher ratios improved or were maintained in more countries than they worsened. Child malnutrition evidenced no trend, worsening in as many countries as it improved or stayed the same.

The findings for Sub-Saharan Africa parallel in large part those for Latin America, in that money income and expenditure measures showed fairly negative trends during the decade, while outcome indicators, measures of social welfare, were almost all positive. There are some differences between the regions: private consumption and real per capita expenditure showed no trend in Latin America but deteriorated in Africa. Health shares and child malnutrition showed no trend in Africa, but improved in Latin America.

This broad overlap in experience between the two regions gives enhanced interest to the two questions raised in connection with the Latin American data. What is the explanation for the paradox they suggest — possible rising numbers below the poverty line, and, in at least a significant number of countries, ambiguous public resource allocations to education and health, yet improved conditions of life by most measures throughout the region in the decade under examination?

Second, how can the rise and spread of the UNICEF vision be explained, in the face of the contrary evidence present in the numbers collected here. These questions will be considered in Chapters Nine and Ten. But the matter of the impact of structural adjustment programs on the poor has to be addressed first.

PART THREE

INTERPRETATIONS AND CONCLUSIONS

CHAPTER EIGHT

THE IMPACT OF STRUCTURAL ADJUSTMENT PROGRAMS ON THE POOR

The received doctrine of the late 1980s argued that the conditions of life of the poor in Latin America and Africa, including their chances for better health care and access to education, were harmed by the adoption of stabilization programs and market-oriented structural reforms. The strong form of this proposition was that the poor suffered disproportionately from these public policies.

The previous analysis, though done without reference to policy regimes, casts some doubt on these propositions. Market-oriented reforms were introduced widely in Africa and Latin America. Yet none of the standard of living or outcome indicators fell, and only one nutritional indicator in Africa failed to show clear progress. Real per capita public social sector spending generally fell in both regions, but often not disproportionately, especially in Latin America. In LAC, health shares improved and education shares did not worsen. In Africa, education shares deteriorated but health shares evidenced no trend in either direction.

This doesn't mean that there isn't plenty of misery in these regions, or that poor people are fewer in number. In fact, most income-based measures of poverty show negative trends after 1980. The strong behavior of social indicators throughout the two regions nonetheless creates a presumption that adjustment policies have not led to a significant and general deterioration in the condition of the poor.

But this is only an inference from the general data, an indirect implication. The issue has to be considered more directly and in more detail. As noted in the Introduction, sparsity of requisite data prevents general analysis of direct impacts of reform programs on households at different income levels. So the issue has to be addressed by posing a different kind of question: Would the poor have been better off if their governments had not undertaken market-oriented reforms? There are many ways to try to answer this difficult question, all of them constrained by data limitations and analytic flaws; some are mentioned below.

In this study, as in many others, a comparison group approach is followed. We classify countries into adjusters and nonadjusters and ask: Have the poor in countries that have adopted programs of structural adjustment in the 1980s fared better or worse than the poor in countries that have not? The evaluation criteria are relative changes over the 1980s in average national indicators of personal income, social sector expenditures, and social conditions.

METHODOLOGICAL ISSUES

The question of relative impacts on the poor can only be answered empirically. A priori analysis can clarify the way different socioeconomic groups are likely to be affected by specific policy changes under given conditions. But policy changes can either hurt or help the poor, depending on initial conditions, the nature of the reforms in question, the structure of the economy being analyzed, and its behavioral characteristics. The actual impact on the poor depends on the extent and intensity of the potential negative and positive effects.¹ It must be determined empirically.

A variety of methodological approaches have been used to evaluate the economic and (much less frequently) the social impacts of policy reform. Country case studies are the most common, using various tools: historical description, econometric analysis, or simulation with complex theoretical models. Multicountry analyses, using before and after comparisons and control groups (classifying countries into adjusters and nonadjusters) are the most common approaches in World Bank and IMF evaluations.² The World Bank and others also use cross-country econometric models, in combination with qualitative analysis.³ Macroeconomic modelling is also common.⁴

Serious methodological problems exist for all these approaches. These have given rise to a sizeable literature.⁵ Here we mention only the main points.

¹ Thus, it is easy to see that the typical stabilization or adjustment package might hurt the poor as a result of its reductions in public expenditure (needed to control inflation or restore fiscal balance), which take the form of cutbacks in public employment, in real public sector salaries, in public service provision, and in imposition of new or higher user charges for health, education, and other services vital to the poor. Food prices may rise because of higher import costs, increased producer prices, or subsidy reduction. Liberalization of trade regimes and measures to restore balance of payments equilibrium might mean import cutbacks, declining industrial production, and increased industrial unemployment. But higher producer prices, reduced regulatory controls, open access to foreign exchange, reform of public enterprises, more evenhanded fiscal systems, removal of restrictions on private provision of services — all will probably bring benefits to the poor, even in the short run. And in the long run, structural changes presumably will bring faster and more even growth.

² See World Bank, Country Economics Department, "Adjustment Lending Policies for Sustainable Growth," World Bank, 1990, for a discussion of these methodologies. See also, M. Goldstein and P. Montiel, "Evaluating Fund Stabilization Programs with Multicountry Data," *IMF Staff Papers*, Vol. 33, No. 2, June 1986; and Paul Mosley, Jane Harrigan, and John Toye, *Aid and Power: The World Bank and Policy-based Lending*, Vols. 1 and 2, London, 1991.

³ See, for example, World Bank, Operations Evaluation Department, "Structural and Sectoral Adjustment Operations; the Second OED Overview," World Bank, June 1992.

⁴ In principle, the question could be answered for any country if a fully specified dynamic general equilibrium model could be constructed. But it is unlikely that credible results can be generated from such models in most poor countries, given the lack of disaggregated data and of firm knowledge about key parameters (such as crop supply functions), the many exogenous determinants of performance in highly open economies, and other difficulties.

⁵ See the survey in Juan Buttari, P. McNelis, and J. Walker, "Methodological Approaches to the Evaluation of Economic Reforms in the Context of Adjustment: Issues and Solutions," USAID Center for Development Information and Evaluation, draft paper, December 1992.

- A major concern is how to deal with the counterfactual — the likely scenario in the absence of reform. The reforming economies and their poor might be worse off if they had continued prereform policies. So it is always of uncertain meaning to say that poor people or anybody else were "hurt by policy reform," because it is always uncertain what would have happened to them without reform.
- Several considerations related to sample bias and phases of the nonreform cycle reduce the meaningfulness of control group approaches — those that involve comparisons of reformers and nonreformers.
 - All countries have to adjust sooner or later to internal and external imbalances, in the absence of a foreign benefactor who picks up the bills. But they do so at different phases of the "nonreform" process. In the early phases of nonreform, reserves can be drawn on, and external borrowings or aid flows increased. Imports and public expenditures can thus be sustained, despite basic imbalances. Comparisons of social indicators (or income-based outcomes) of such nonreformer countries with those of reforming countries would tend to yield results favorable to the nonreformers. This is especially so when — as happens frequently in Latin America and Africa — the reluctant reformers are regimes with a populist flavor. The fact that these relatively favorable social indicators are unsustainable does not show up in short-term comparisons.
 - The reforming-nonreforming categories probably contain biased samples of countries. The countries that adopt reforms are usually at the final phases of the nonreform process; almost always, countries adopt reform programs when all else has failed. The reformers thus are in deep economic trouble at the outset, with large budget and balance of payments deficits, high rates of inflation, depleted external reserves, and no creditworthiness. It is hard to put these economies in order; they have to climb out of so big a hole. So stabilization and adjustment measures may have to be especially severe and social indicators might be expected to deteriorate.⁶
- It is difficult to isolate the impact of policy changes from other changes, short-term and secular, domestic and external, that have taken place over the period being examined. While domestic policies are being reformed, relative prices are changing on world markets; macroeconomic distortions in neighboring economies are increasing or declining, with important consequences for informal trade and capital flows; labor force participation rates are changing; and drought cycles or rainfall patterns are shifting.

Evaluators attempt to deal with many of these problems — by running simulations for estimating counterfactuals, for example, and by controlling for exogenous events such as terms of trade shocks, drought, and civil wars.⁷ But many internal and external events cannot be captured.

⁶ It is theoretically possible that there is a different kind of selection bias at work. The reforming country group might be biased positively, in that it consists of countries whose leadership has correctly assessed needs and prospects for successful adjustment. This is not likely, however.

⁷ As in the World Bank's second report on adjustment lending, commonly known as RAL II — Country Economics Department, World Bank, "Adjustment Lending Policies for Sustainable Growth," Policy and Research Series no. 14, World Bank, 1990.

- Classification presents further problems. First, by what criteria should adjusters/reformers be distinguished from nonadjusters/nonreformers? As we will shortly see, the World Bank uses the adoption of a formal structural adjustment program as its criterion. But the classification could be done by more qualitative, intuitive means — by reliance on expert opinion that classifies countries according to policy stance, for example, or by policy stance determined more objectively, as in the World Bank's 1994 report on adjustment in Africa.⁸ We consider both approaches below. In any case, every method has an element of arbitrariness.
- There also are some sticky issues related to time.
 - One is the choice of start-up date: When can reform or adjustment be said to have begun? The date of approval of a formal adjustment loan is commonly used in World Bank analyses, but this can be misleading. So-called "prior actions" may have been taken many months before. There may be a delay of many months before an approved policy loan becomes "effective."
 - How long a lag is appropriate before results of policy change should be anticipated? The problem is evident on the economic side. Production structures differ: primary producers normally would need longer for supply response to be seen; heavily controlled economies do not shed regulatory obstacles after a few decrees proclaiming the arrival of liberalization. It is also true for social indicators; they are unlikely to show quick changes in response to changed policies. The impact of expenditure cuts in social sectors is not likely to be immediate.⁹
- More fundamental perhaps is that classification is usually done on the basis of a dichotomous variable: country impact or performance is compared based on the two-valued distinction: reformers or nonreformers. They may be further classified into "intensive" or "early" reformers and others, as the World Bank does in its 1990 evaluation of adjustment lending, or into reforming, partly reforming, and others. But this does not deal adequately with the reality of reform gradations.

In practice, reform efforts can range from comprehensive and quick revamping of economic policy (for example, Ghana in 1983, Bolivia in 1985, and Argentina later in the decade) to slower, sector-by-sector approaches (Madagascar, Zimbabwe, Guatemala, or Ecuador, for example), to the more typical stop-start reform programs of Zambia or Brazil. They are also of vastly differing intensities or depth. Some policy reforms involve a more or less symbolic removal of formal controls on a market that has long been competitive in practice, while others entail true market liberalization. Some trade policy reforms lower tariff structures from stratospheric to merely highly protective levels, without significant increase in domestic competition, while others involve genuine dismantling of protection. Differences in degrees of implementation are also widespread and not accounted for in the classifications used to compare adjusting and nonadjusting countries.

⁸ World Bank, *Adjustment in Africa: Reforms, Results, and the Road Ahead*, 1994.

⁹ The issue of how to deal with late adjusters complicated these comparisons. In the World Bank classification of policy performance, Burkina Faso is put among the "large improvers." But this occurred late in the decade. It is not realistic to expect almost instantaneous impacts on social indicators.

SOCIAL PERFORMANCE OF ADJUSTERS AND NONADJUSTERS

Since the appearance of *Adjustment With a Human Face* in 1987, there have been several case studies of the impact of adjustment on poverty.¹⁰ The deepest and surest insights into the social impacts of adjustment come from detailed case studies.¹¹ These have their limits, however. It's hard to generalize from them. They are subject to biases of various kinds and are usually not standardized. In-depth studies are few in number, and there are even fewer that are based on data for the latter part of the 1980s. This is a critical factor in Sub-Saharan Africa, where the reform process did not really get under way in most countries until 1985 or later.

Two approaches have been adopted most commonly to evaluate the impact of policy change.¹² One is the comparative method based on a predetermined classification scheme. For example, the observer looks at countries before and after adjustment, and performance on selected indicators is compared for the period before the policy change with what happened after the change. Control group comparisons are also made. Simple control group comparisons match performance in reforming and nonreforming countries, the nonreformers' behavior being taken as the counterfactual — what would have happened in the absence of reform. Modified control group approaches take into account differences in initial conditions and external shocks.

In these comparative studies, the classification of countries is a critical step; without a reasonably clear sorting out of adjusters (and nonadjusters), meaningful comparisons are unlikely. There are two general ways to attack the classification problem. First, countries can be grouped according to whether they have adopted a formal adjustment program. Thus, in the World Bank assessments discussed in some detail below, the criterion for classification was the adoption of a formal adjustment program as evidenced by the presence of policy lending. This classification scheme has the advantage of relative objectivity. It is based on the number and timing of Structural Adjustment and Sectoral Adjustment Loans. Countries that began to receive adjustment lending at an early date (pre-1985) and had repeated recourse to it since then are classified as "intensely adjusting." More recent recipients of policy loans are grouped as "other adjusters," and those that have no policy loans are grouped for some purposes into two subcategories — those that haven't adopted programs because they didn't need to and those that needed to but wouldn't.

Reliance on the presence or absence of adjustment loans to distinguish adjuster/reformers from nonadjusters/nonreformers has some strong disadvantages. It yields some results that fly in the face of common sense; the decision to classify Brazil and Zambia as intensive adjusters in the 1980s is

¹⁰ Major studies are listed in a note to Chapter Three of RAL II (1990, p. 110). The Development Centre of the OECD published in 1991 and 1992 seven case studies in its series, "Adjustment and Equity in Developing Countries" (Ecuador, Malaysia, Morocco, Chile, Indonesia, Côte d'Ivoire, and Ghana).

¹¹ Cf. C. Grootaert, "The Evolution of Welfare and Poverty Under Structural Change and Economic Recession in Cote d'Ivoire, 1985-1988," WPS 1078, Africa Technical Department, World Bank, January 1993; C. Zuvekas, "Costa Rica: The Effects of Structural Adjustment Measures on the Poor, 1982-1990," Staff Working Paper, No. 5, Bureau for Latin America and the Caribbean, USAID, June 1992.

¹² This discussion draws on Annex 2.1, pp. 23 ff. of RAL II.

inappropriate. The period of time used to define adjusters can be arbitrary and yield conflicting results.¹³ This approach also is based wholly on formal agreements, with no attempt to distinguish intensity of reform or seriousness of implementation; there is no reference, that is to say, to actual policy regimes

A second approach is reliance on expert opinion to sort countries out between those with relatively sound policy regimes and those in which economic distortions remain relatively severe. This approach has some shortcomings compared with the World Bank approach. It is much more subjective, and classification of so-so performers (usually the majority of countries) is especially troublesome. But it has a lot in its favor. It looks at policy behavior rather than pieces of paper. At the expense of losing the objectivity of the Bank approach, it allows some differentiation between those countries that accepted IMF and World Bank stabilization and adjustment lending but did not sustain the reforms that were to accompany them, and those countries that, in a measurable sense, did reform their economies.

A third approach is a variant of the second. It entails classification of countries into those with strongly improved policies, slightly improved, and not improved at all. Classification criteria are performance on objective macroeconomic indicators such as rates of inflation, exchange rate misalignment, and budget deficits. We use this approach in the analysis of African social performance, borrowing the classification from the World Bank study of adjustment in Africa (1989).

In this chapter, we look first at two significant World Bank studies that address the issue of social indicators and adjustment. We then undertake our own analysis; we use both approaches to classification, and — in the Africa case — one that is something of a hybrid. We consider Latin America first, then Sub-Saharan Africa.

FINDINGS FROM TWO WORLD BANK REPORTS

Probably because the methodological difficulties are so formidable, little work has been done comparing the evolution of social indicators in reforming and nonreforming countries. The main attempts are found in two World Bank reports on adjustment lending: "Adjustment Lending Policies for Sustainable Growth," 1990, known as the second report on adjustment lending, or RAL II; and "Adjustment Lending and Mobilization of Private and Public Resources for Growth," 1992, called RAL III. Some of the background documents prepared for these reports address directly the question of impacts on living standards; they were cited frequently in earlier chapters.¹⁴ For present purposes most of the data analyzed in RALs II and III present a major inconvenience: in only a few instances are they broken out by region. They are of interest nonetheless.

¹³ For example, in the World Bank's first report on adjustment lending, RAL I (1988), adjusting groups were defined to include any country that had received an adjustment loan by 1984. The Bank's 1989 report, "Adjustment and Growth in Africa in the 1980s," defined reforming countries as those with an acceptable program in place in 1986-1987. So RAL I includes Sierra Leone, Sudan, Zambia, and Zimbabwe among the adjusters, and excludes from this category eight African countries that had programs in 1986-1987 but not by 1984: Burundi, Central African Republic, Gambia, Guinea, Madagascar, Mauritania, Niger, and Zaire. A more recent Bank study (Serageldin et al., 1992) adopts a different convention; it groups countries according to the number of years they have had adjustment loans. One could define intensive adjusters by this kind of criterion — for example, as countries under adjustment for five or more years over the decade. Eleven such countries can be identified.

¹⁴ For example, Nanak Kakwani, E. Makonnen, and J. van der Gaag, "Structural Adjustment and Living Conditions in Developing Countries," World Bank Working Paper # 467, 1990; and van der Gaag et al., 1991.

RAL II

RAL II looks first at changes in poverty incidence in 12 countries during the 1980s. The data are fragmentary; often only three years are covered. None of the 12-country sample is African, and only four are Latin American. Of these, three are classified as early intensive adjustment lending (EIAL) countries (Brazil, Chile, and Costa Rica), while one (Venezuela) is a nonadjuster. Poverty is recorded as declining in Venezuela and Chile and rising in Brazil and Costa Rica. The worldwide results show few differences between adjusters and nonadjusters.¹⁵

A more extensive comparative analysis is done for changes in private consumption expenditure and social indicators between 1980 and 1986. In this analysis, the universe is divided into four categories: 25 early intensive adjusters, of which 12 are African and 7 Latin American; 25 other adjusters (OAL), of which 13 are African and 6 Latin American; and 28 nonadjustment lending countries (6 of them African, 8 Latin American) that did not have to adjust because they were not in economic trouble (NAL+), or that needed to adjust but didn't (NAL-).¹⁶

The main results can be summarized as follows:

- With respect to **private consumption expenditure**, 24 early and intensive adjusters did substantially better than the 15 nonadjusters that needed adjustment (NAL-). The gap in performance widened later in the decade (1985-88). Consumption in these EIAL countries was also protected in real terms; it fell in the early 1980s, but recovered to 1970-80 levels by 1985-88.
- **Nutrition** indicators improved throughout the period in all classes of countries, but somewhat more in the EIAL than in the NAL group. Improvement was greatest in middle-income EIAL countries. When African data alone are analyzed, however, they show little difference in nutritional performance between intensive adjusters and nonadjusters.¹⁷ The report concludes (p. 31): "The results on nutrition suggest that average food consumption has improved and that there is no systematic effect of adjustment lending in reducing food consumption."
- **Infant and child mortality** continued its general decline in the 1980s. The mortality rate fell in 26 of 28 countries during the 1980s, and the rate of decline quickened in 11 of the 28. Differences between adjusters and nonadjusters are not pronounced. The average decline for the EIAL countries was greater in the 1980s than in the late 1970s.¹⁸

¹⁵ Of the 5 intensive adjusters, 2 had a reduction in poverty (Chile and Thailand); 2 of the 4 other adjusters had reduced poverty (China and Yugoslavia), and 2 had an increase (Hungary and Indonesia), the latter between 1984 or 1985 and 1987. Two of the 3 nonadjusters (Poland and Venezuela) had reduced poverty, but Malaysia experienced an increase.

¹⁶ See RAL II, p. 12, for the country classification.

¹⁷ In 8 of 12 EIAL African countries, the nutrition indicator worsened between 1980 and 1983-1984. It improved in 10 of 12 between 1983-1984 and 1986. But 7 of the 12 countries had worse nutritional status in 1986 than in 1980; the ratio was 5 out of 10 for the nonadjusting African countries.

¹⁸ This is true when Chile is removed from the comparison. Chile had a 13 percent decline in its infant mortality rate from 1982 to 1987, but it had dropped by 50 percent between 1977 and 1982.

- **With respect to social sector public expenditures:**
 - In the 10-country sample of intensive adjusters used in this part of the RAL II analysis, only 1 is African and 3 Latin American. Thus the results cannot be generalized. Nonetheless, in the 10 EIAL countries, overall shares of social sector spending in total central government expenditures rose from 22.3 percent in 1970-80 to 24.4 percent in 1981-84, then fell to 22.4 percent in 1985-87. In five NAL countries, shares rose.
 - **Real education spending per capita** continued to rise in 1981-87 in the EIAL countries, though much more slowly than in the 1970s; in three NAL countries it rose more decisively.
 - **Real per capita health expenditure** fell in the early part of the decade in the EIAL countries, but rose after 1984. It did not fall in the three NAL countries, and rose faster there after 1985.
- **Gross primary enrolment ratios** fell on average between 1980 and 1985 in the 24 EIAL countries. They rose in all other country groups.

These worldwide public expenditure and school enrolment comparisons allow no specific conclusions for Africa and Latin America, since the sample contains only a few countries from these two regions.¹⁹ Nonetheless, the general results are of interest, not least because they reveal so little worldwide evidence for the proposition that the poor suffered general deterioration in social conditions in the 1980s, and almost no support for the proposition that the poor in adjusting countries fared worse than they did in adjusting countries. According to the RAL II data, adjustment lending countries appear to have had slightly better social performance than nonadjusters, as measured by changes in average private consumption per capita, nutrition, and infant and child mortality.

In the RAL II analysis, adjusters and nonadjusters are defined and grouped according to whether they have received World Bank adjustment loans. As noted above, this classification scheme has the advantage of objectivity and simplicity, but also has some serious disadvantages, not least the possibility that countries receiving adjustment loans may not in fact have adopted market-oriented policy reforms.

One way to get around this deficiency is to classify countries not according to whether they have signed adjustment loan agreements, but on what they have *done* — in other words, on the appropriateness of their actual policy regimes, as judged, for example, by experts. This approach was tried during the preparation of RAL II. The results are summarized in footnote 17. They confirm the conclusion that countries with market-oriented policy regimes did better on some key social indicators and worse on very few.²⁰

¹⁹ There are, for example, only 3 LAC countries in the sample of 10 EIAL (Chile, Costa Rica, and Mexico), 2 of the 5 OAL countries (Panama and Uruguay), and 1 in the NAL sample (Venezuela). Only 1 Sub-Saharan African country (Togo) is in the EIAL group, 1 (Zimbabwe) in the OAL, and none in the NAL set.

²⁰ The adjusting group of countries, by this "policy regime" or "expert opinion" classification, had higher average growth of per capita consumption in 1985-1988, similar improvement in nutrition between 1980 and 1986, constant health budget shares, and declining education shares but higher real education spending throughout the 1980s. Their real health expenditures per head decreased on average in 1981-1984 but rose from 1985 to 1987, and their primary school enrollment ratios increased (RAL II, p. 111).

RAL III²¹

This 1992 World Bank report presents little systematic data of direct relevance here. The authors observe that most of the poor were probably better off in adjustment lending countries, and that where adjustment programs have been abandoned (for example, Brazil and Zambia), or resisted (Peru and Côte d'Ivoire), the poor clearly suffered.²² But they say that lack of data prevents better understanding of trends in poverty, especially in Africa.

They do point out that many policies associated with adjustment lending protect the poor: consumption smoothing through reduced public investment, greater inflows of official development assistance to low income countries, and improvements in terms of trade of rural producers as a result of exchange rate devaluation. But aside from some statistics showing that personal consumption increased more in the 1980s in adjusting than in nonadjusting countries, quantitative analysis bearing on poverty is restricted to exploring the impact of adjustment lending on the level and composition of public expenditures.

Two groups of countries are compared: 16 intensive adjustment lending countries and 13 nonadjustment lending countries. Of the IALs, 4 are African (Ghana, Kenya, Malawi, and Mauritius) and 6 Latin American (Bolivia, Brazil, Chile, Costa Rica, Mexico, and Uruguay). Of the 13 NALs, 3 are African (Botswana, Burkina Faso, and Liberia) and 4 Latin American (Dominican Republic, El Salvador, Guatemala, and Paraguay).

Analysis of 1980s public expenditure data (drawn mainly from the IMF's Government Financial Statistics series), shows that education and health sector *shares* of total government expenditures increased between 1981-85 and 1986-90 in *both* groups of countries. *Real expenditures per capita* on health and education rose in two-thirds of the IAL countries (average increase: 12 percent) and in 42 percent of the NALs (average increase: 9 percent). The authors conclude that the data do not support the view that adoption of adjustment programs has led to general cuts in social sector expenditure.²³

COMPARING SOCIAL PERFORMANCE OF ADJUSTERS AND NONADJUSTERS

We turn here to our own analysis of adjustment and the poor in Latin America and Africa, using both approaches to classification — "objective" comparison and expert opinion.

²¹ Country Economics Department, *Adjustment Lending and Mobilization of Private and Public Resources for Growth* (RAL III), Policy and Research Series no. 22, Washington, D.C.: The World Bank, 1992.

²² *Ibid.*, p. 20.

²³ *Ibid.*, p. 59. The public expenditure data analysis also fails to support the hypothesis that adjustment lending allows governments to shield their military spending. Military budget shares fell in the 1980s in both adjustment lending and nonadjustment lending countries, but by more in the former.

Adjustment and the Poor in Latin America

World Bank structural adjustment lending to the LAC region started slowly (one loan between 1980 and 1982) but picked up quickly.²⁴ Between 1980 and 1989, LAC received the greatest amount of adjustment lending of any region — 36 percent of the total. (The Middle East and North African region [EMENA] was next with 25 percent.) The high level of lending to the LAC region reflects the problems of the highly indebted countries (HICs), which received 48 percent of all adjustment lending.²⁵ In any event, this criterion for classification — existence of SALs and SECALs — generates an easily specified set of countries for comparisons.

For the second method of classification — reliance on the judgement and opinion of experts as to the "soundness" of national policy regimes (extent of external and internal balance and adoption of market-oriented structural changes) — we rely on John Williamson's 1990 study on Latin American adjustment.²⁶ Williamson defines nine policy areas and specifies policy regimes on the soundness of which much of "Washington" — the IMF/World Bank and the U.S. executive branch, as well as the Inter-American Development Bank, Congress, and think tanks — could agree. The policy areas are fiscal discipline, public spending priorities, tax reform, financial liberalization, exchange rate management, trade liberalization, foreign direct investment, privatization, and deregulation.

Williamson then rates countries on a subjective five-point scale in each of the nine areas, coming up with a summary rating of countries as "reforming," "partially reforming," and "nonreforming." The subjectivity of this approach allows the use of substantive knowledge and intuition in setting country classifications — for instance, in recognizing reform efforts by countries that have not worked with the IMF/World Bank — but at a cost of introducing more room for debate, particularly between the classifications of "reforming" and "partially reforming." The Williamson assessments are also imprecise about the starting date of serious reform efforts. Annex C presents the Williamson approach and the resulting LAC country classifications. For the purpose of our data analysis, we assign start dates based on our understanding of each country's reform program.

Tables 45 and 46 show the same data that were given earlier, in Table 23, only organized differently. Here the LAC countries are categorized as adjusting or nonadjusting according to the two classification schemes outlined above — those of the World Bank and Williamson. Comparisons are made between adjusters and nonadjusters, using each of the classifications. In the summary totals,

²⁴ Annex B shows Structural Adjustment Loans (SALs), Sectoral Adjustment Loans (SECALs), and IMF stabilization lending (stand-bys and EFFs) received by borrowers in Latin America and Africa between 1979 and 1991.

²⁵ To put this in perspective, adjustment lending totaled no more than 10 percent of official disbursements to the LAC region in the 1980s.

²⁶ John Williamson, *Latin American Adjustment: How Much Has Happened?* Institute for International Economics, Washington, D.C., April 1990.

TABLE 46
SUMMARY OF TRENDS - WORLD BANK 71

COUNTRY	INCOME					PUBLIC EXPENDITURE					OUTCOMES						
	ABSOLUTE POVERTY	RELATIVE POVERTY	CONSUMPTION CAP.	INFLATION RATE	UNEMPLOYMENT	TOTAL EXP. GDP	EDUCATION SHARE	HEALTH SHARE	EDUCATION EXP. CAP.	HEALTH EXP. CAP.	IMPROVEMENT CHILDREN	CHILD MORTALITY	LIFE EXPECTANCY	INDICATORS IMPV	ART. INEQUALITY	STUDENT TEACHER	LITERACY IMPV
IAL																	
Bolivia			-	-	-	-	-	0	-	-	+	+	+	+	+	-	
Brazil	-	-	-	-	+	-	+	+	+	+	+	+	+	0	+	+	+
Chile			-	-	+	-	-	+	-	0		+	+	0	-	+	+
Colombia	+	+	0	+	-	-	-	-	-	-	+	+	+	+	-	0	+
Costa Rica	+	+	0		+	+	-	-	-	-	+	+	+	+	-	-	
Jamaica			-									+	+	+	0	+	
Mexico			-	-	+	-	+	+	-	-		+	+	+		+	+
PRE - 1988																	
Ecuador			+	-	-	-	-	+	-	+		+	+	+		+	+
Paraguay	-	-	0			-	+	+	+	+		+	+	+	0	+	+
Uruguay	+	+	-	-	-	-	+	+	-	-		+	+	+		-	
POST - 1988																	
Argentina	-	-	0	-	-	-	0	-	-	-		+	0	+		+	+
El Salvador			0			-	0	-	-	-	+	+	+	+	+	+	+
Honduras			-									+	+	+			
Venezuela	-	-	0	0	-	-					+	+	+	-	0	+	+
IAL																	
Dominican Republic			0			+	-	0	-	+		+	+	+		+	
Costa Rica			-			-	+	+	+	-	+	+	+	+		0	
Haiti			-									+	+	+	-	+	+
Nicaragua			-			+					0	+	+	+	0	+	
Paraguay	+	+	0	+	0	-	+	0	-	-		+	0	+	0	+	+
Peru			0	-	+	-	+	+	-	-	0	+	+	+	+	+	+
Trinidad & Tobago			-			-					+	+	+	+	0	-	+
TOTALS - IAL AND PRE - 1988																	
TOTAL +	3	3	1	1	4	1	4	8	2	3	4	10	10	8	2	6	6
TOTAL 0	0	0	3	0	0	0	0	1	0	1	0	0	0	2	2	1	0
TOTAL -	2	2	7	6	4	8	4	1	6	4	0	0	0	0	3	3	0
TOTALS - POST - 1988 AND IAL																	
TOTAL +	1	1	0	1	1	2	3	2	1	1	4	11	9	10	2	8	7
TOTAL 0	0	0	6	1	1	0	2	2	0	0	2	0	2	0	4	1	0
TOTAL -	2	2	5	2	2	7	1	1	5	4	0	0	0	1	1	1	0

KEY:
 + = IMPROVED IN
 0 = UNCHANGED
 - = WORSEMED
 • = STABLE

1/ TABLE SHOWS TRENDS BETWEEN AVERAGE VALUES OF INDICATORS FROM 1980-82 AND THEIR AVERAGE VALUES FROM 1977-81
 2/ OUR DATA SHOWS TRENDS BETWEEN AVERAGE VALUES OF INDICATORS FROM 1980-86 AND THEIR AVERAGE VALUES FROM 1985-89
 3/ LITERACY DATA SHOWS TREND BETWEEN THE YEAR 1980 AND THE YEAR 1980
 4/ FOR EXPENDITURE DATA, A PLUS MEANS AN INCREASE AND A MINUS MEANS A DECREASE

TABLE 46
SUMMARY OF TRENDS - WILLIAMSON #1

COUNTRY	INCOME					PUBLIC EXPENDITURE					OUTCOMES						
	PER CAPITA INCOME	PER CAPITA INCOME	CONSUMPTION EXP.	HOUSEHOLD INCOME	UNEMPLOYMENT	TOTAL EXP. GDP	EDUCATION INCOME	HEALTH INCOME	EDUCATION EXP. GDP	HEALTH EXP. GDP	HOUSEHOLD CONSUMPTION	CHILD MORTALITY	ADULT EDUCATION	INFLUENZA DEATHS	NET ENROLLMENT	STUDENTS PER CLASS	LITERACY RATE %
POLICY REFORMERS																	
Belize			-	-	-	-	-	0	-	-	+	+	+	+	+	-	-
Chile			-	-	+	-	-	+	-	0	0	+	+	0	-	+	+
Costa Rica	+	+	0	-	+	+	-	-	-	-	+	+	+	+	-	-	+
Ecuador			+	-	-	-	-	+	-	+		+	+	+	+	+	+
Jamaica			-	-	-	-	-	+	-	+	+	+	+	+	0	+	+
Trinidad & Tobago			-	-	-	-	-	-	-	-	+	+	+	+	+	+	+
Uruguay	+	+	-	-	-	-	0	+	0	+		+	+	+	0	-	+
PARTIAL REFORMERS																	
Colombia	+	+	0	+	-	-	-	-	-	-		+	+	+	-	0	+
Guatemala			-	-	-	-	+	+	+	-	+	+	+	+	-	0	+
Paraguay	-	-	0	-	-	-	+	+	+	+		+	+	+	0	+	+
RECENT REFORMERS																	
Argentina	-	-	0	-	-	-	0	-	-	-		+	0	+	-	+	+
El Salvador			0	-	-	-	0	-	-	-	+	+	+	+	+	+	+
Mexico			-	-	+	-	+	+	-	-		+	+	+	-	+	+
Paraguay	+	+	0	+	0	-	+	0	-	-		+	0	+	0	+	+
Venezuela	-	-	0	0	-	-	-	-	-	-	+	+	+	-	0	+	+
NON-REFORMERS																	
Brazil	-	-	-	-	+	-	+	+	+	+	+	+	+	0	+	+	+
Dominican Republic			0	-	-	+	-	0	-	+		+	+	+	-	+	+
Haiti			-	-	-	-	-	-	-	-		+	+	+	-	+	+
Honduras			-	-	-	-	-	-	-	-		+	+	+	-	+	+
Nicaragua			-	-	-	+	-	-	-	-	0	+	+	+	0	+	+
Peru			0	-	+	-	+	+	-	-	0	+	+	+	+	+	+
TOTALS - POLICY REFORMERS AND PARTIAL REFORMERS																	
TOTAL +	3	3	1	1	2	1	2	5	2	3	5	10	10	9	1	4	5
TOTAL 0	0	0	3	0	0	0	1	1	1	1	1	0	0	1	3	2	0
TOTAL -	1	1	6	4	4	8	4	1	4	3	0	0	0	0	3	4	0
TOTALS - RECENT REFORMERS AND NON-REFORMERS																	
TOTAL +	1	1	0	1	3	2	4	3	1	2	3	11	9	9	3	10	8
TOTAL 0	0	0	6	1	1	0	2	2	0	0	2	0	2	1	3	0	0
TOTAL -	3	3	5	4	2	7	1	1	6	4	0	0	0	1	1	0	0

KEY:
+ = IMPROVED IN
- = WORSENE
0 = STABLE

1/ TABLE SHOWS TRENDS BETWEEN AVERAGE VALUES OF INDICATORS FROM 1980-82 AND THEIR AVERAGE VALUES FROM 1967-69
2/ CMR DATA SHOWS TRENDS BETWEEN AVERAGE VALUES OF INDICATORS FROM 1980-85 AND THEIR AVERAGE VALUES FROM 1965-69
3/ LITERACY DATA SHOWS TRENDS BETWEEN THE YEAR 1980 AND THE YEAR 1980
4/ FOR EXPENDITURE DATA, A PLUS MEANS AN INCREASE AND A MINUS MEANS A DECREASE

BEST AVAILABLE DOCUMENT

intensive and pre-1986 reformers are combined as adjusters in the World Bank table, and policy reformers and partial reformers are combined in the Williamson table.²⁷ Several points emerge.

- Using the headcount poverty measure (proportion of total population in absolute poverty) and using a common poverty line of \$60 per person or less, the adjusters performed better than the nonadjusters or late adjusters. Relative poverty measures (as measured by changes in income distribution) showed exactly the same results as absolute poverty measures.
- The more comprehensive data on trends in per capita private consumption show that nonadjusting countries fared better on this measure over the 1980s. Consumption may be particularly sensitive to the "nonadjustment cycle" problem mentioned earlier: nonadjusters can run down reserves for a time, or borrow, and thereby sustain employment, wages, and private consumption at levels that are not sustainable for long.
- Minimum wages declined slightly more often in adjusting than in nonadjusting countries, according to both the World Bank and Williamson classifications.
- The groupings yield different results for unemployment levels in the 1980s. The World Bank approach indicates that adjusting and nonadjusting countries performed the same, while the Williamson approach indicated that nonadjusters performed better.
- With respect to government expenditures:
 - Total expenditure as a percentage of GDP was reduced in the majority of both the adjusting and nonadjusting countries, but adjusters were more likely to reduce expenditure share.
 - In both classification schemes, education shares fared better for nonadjusters while health shares fared better for adjusters (although slightly).
 - Real per capita expenditures on health and education improved more in adjusting than nonadjusting countries in both classifications.
- With respect to outcome measures or social indicators, there is little observable difference between the adjusters and nonadjusters, however grouped.
 - Underweight children were slightly less prevalent in adjusting countries, according to both classifications.
 - The performance of nonadjusters and adjusters was identical in reducing child mortality rates and increasing life expectancy under both classifications. Both studies indicate that

²⁷ It should be noted that some arbitrary decisions have been made in classifying Williamson's "recent reformers" and the World Bank's "post-1985" reformers. We classify the late reformers as nonadjusters primarily because to do otherwise would involve assumptions about the rapidity of policy change impacts that are unrealistic. Where this group of countries is classified affects our conclusions for each classification scheme. Including the "recent reformers" as adjusters makes the adjusters appear to perform better with respect to poverty measures. The opposite conclusion is reached if "post-85" reformers are included as adjusters. Therefore, the issue seems to be a wash.

vaccination rates improved slightly more for adjusters. Therefore, it is evident that health indicators showed no signs of deterioration in adjusting countries.

- Adjustment may have had a slightly negative effect on primary net enrollment rates and the student-teacher ratio. In both classifications, improvements were more likely for the nonadjusters over the course of the decade. Illiteracy rates, however, rose in all countries regardless of adjustment status.

The summary data for LAC from Tables 45 and 46 show only slight differences in social performance between adjusters/reformers and nonadjusters/nonreformers. Both classifications indicate that adjusters performed better with respect to absolute and relative poverty, health shares (barely), and per capita expenditure on education and health, prevalence of underweight children (barely), and vaccination coverage (barely). They did worse with respect to private consumption, minimum wage, education shares, primary net enrollment ratios, and the student-teacher ratio. They performed no differently from nonadjusters with respect to child mortality, life expectancy, and illiteracy. The size of government declined more in adjusting countries. The only sure conclusion one can make for unemployment is that it did not improve for adjusters; the classifications differ on whether it was worse for adjusters or no different.

The pattern of evidence on adjuster/nonadjuster differences in social performance points to one weak and one robust generalization. The weak conclusion is that the available numbers show that adjusting countries did slightly better on most key measures — headcount poverty and all outcome (or standard of living) indicators except those related to education. The firm and important generalization is that the numbers give no support for the argument that adjustment is responsible for reducing the quality of life of the poor in adjusting countries in Latin America. The data show no systematic evidence of superior social performance by nonadjusting countries.

Adjustment and the Poor in Sub-Saharan Africa

Two classification schemes are used for the Sub-Saharan Africa data: the grouping by change in policy stance defined in the 1994 World Bank study, *Adjustment in Africa*, and an expert opinion classification from USAID. The different country breakdowns are given in Annex E.

In the 1994 World Bank study on African adjustment, the authors classify countries according to their change in macroeconomic policies between the two periods 1981-86 and 1987-91. Countries fell into three broad categories of macroeconomic policy change: those that showed a large improvement, those that showed a small improvement, and those that showed a deterioration.

To classify countries, the authors created an aggregate index that summarizes changes in fiscal, monetary, and exchange rate policy. Numerical scores from -3 to +3 were assigned to each country based on the size of the change in each indicator, with a higher score indicating more improvement in policy. The individual scores for each of the three indicators were then aggregated by simple averaging to arrive at a composite score for overall change in macroeconomic policies.

Based on their composite scores, the adjusting countries were divided into three groups: countries that had large improvement in macroeconomic policies (scores above or equal to 1), small improvement

(scores below 1 but above 0), or deterioration (scores below 0).²⁸ This approach is somewhat more objective than the expert opinion approach and has the advantage of considering change in policy stance over the decade, instead of simply evaluating it at one point in time.

The Washington staff of USAID are sometimes asked to classify countries they work on by the soundness of their policy environments or their depth of reform. The results of a 1991 survey of the staff are used here — an equivalent of the Williamson classification for Latin America. This methodology has the virtue of using actual country policies as the sorting criterion, rather than formal commitment to a reform program whose depth and degree of implementation are unspecified. The disadvantage is the subjectivity of the groupings. Different experts have different standards for ranking policy performance; weighting of performance in different policy areas is arbitrary and the question of whether absolute levels or changes is the appropriate criterion is unclear.

The USAID inquiry asked staff to score country performance in seven economic areas: international trade policy, exchange rate policy, domestic financing of the public sector budget deficit, macroeconomic stabilization program quality and need, real interest rate levels, business investment and employment environment, and structural adjustment program quality and need. These raw scores were then weighted to come up with an overall policy score on a scale from 0 to 100 — with 100 representing an "ideal" score. All ratings were based on 1991 data only.

Countries rating between 75 and 100 are grouped as "strong policy" countries. Those in the 50-75 range are classified in the "medium policy" category, and those with scores under 50 as "low policy" countries.

The data presented in Table 44 of Part Two on income-related poverty measures, public expenditure trends, and social indicators are rearranged in Tables 47 and 48, according to the two classification schemes presented above. The following are the salient points:

- Real per capita private consumption fared better in countries that had implemented at least some reforms.
- Minimum wages deteriorated more often in adjusting countries.
- The size of government declined more often for adjusters according to the World Bank; according to the USAID classification, there was no difference.
- Education and health shares were less likely to decline in adjusting countries.
- Both classifications indicate that real per capita education expenditure fared better in adjusting countries. The classifications give different results with respect to real per capita health expenditure.
- There was no difference in the prevalence of underweight children between adjusters and nonadjusters.

²⁸ Appendix B of the Psacharopoulos report (1993) contains a detailed discussion of other methods considered to classify countries, as well as a test of robustness of the classification they chose to use.

TABLE 47
SUMMARY OF TRENDS - WORLD BANK /1

COUNTRY	INCOME		PUBLIC EXPENDITURE				OUTCOMES							
	CONSUMPTION P.C.A.P.	MINIMUM WAGE	TOTAL EXP./GDP	EDUCATION SHARE	HEALTH SHARE	EDUCATION EXP./P.C.A.P.	HEALTH EXP./P.C.A.P.	UNDERNOURISHED CHILDREN	CHILD MORTALITY /2	LIFE EXPECTANCY	VACCINATION RATE	NET EMPLOYMENT	STUDENTS/TEACHER	LITERACY RATE /3
LARGE IMPROVEMENT														
BURKINA FASO	○	-	-	-	-	-	-	-	+	+	+	+	-	-
GAMBIA	-	-	-	-	-	-	-	-	+	+	+	○	-	+
GHANA	-	+	+	+	+	+	+	-	+	+	+	-	+	-
INDONESIA	-	-	-	-	-	-	-	-	+	+	-	-	○	-
TANZANIA	+	-	-	-	-	-	-	-	+	○	+	-	+	-
ZIMBABWE	-	+	+	+	+	+	+	+	+	+	+	-	+	-
SMALL IMPROVEMENT														
BURUNDI	○	-	-	+	○	-	-	-	+	+	+	-	-	+
KENYA	○	-	-	+	-	+	-	+	+	+	-	-	+	+
MADAGASCAR	-	-	-	-	+	-	-	-	+	○	+	-	○	-
MALAWI	+	-	-	+	+	-	+	-	+	○	+	+	○	○
MALI	○	+	○	-	-	-	-	-	+	+	+	+	+	+
MAURITANIA	+	-	-	-	-	-	-	-	+	+	+	-	-	-
QATAR	-	-	-	-	+	-	-	-	+	+	+	+	○	-
SENEGAL	-	-	-	-	-	-	-	-	+	+	-	+	-	-
UGANDA	-	-	-	-	-	-	-	-	+	○	+	-	○	-
DETERIORATION														
DEBEN	-	-	-	-	-	-	-	-	+	+	+	-	+	+
CAMBODIA	○	+	○	+	+	+	+	○	+	+	+	-	○	+
CAR	-	-	-	-	-	-	-	-	+	○	+	-	-	+
CONGO	-	-	-	-	-	-	-	-	+	+	+	-	-	+
COTE D'IVOIRE	-	-	-	○	-	-	-	-	+	+	+	-	○	+
HAWON	-	○	-	-	-	-	-	-	+	+	-	-	○	-
INDONESIA	-	-	-	-	-	-	-	-	+	+	+	+	+	+
JORDANIA	-	-	-	-	-	-	-	○	+	○	+	+	+	+
MERIA LESORE	-	-	-	-	-	-	-	-	+	+	+	-	+	-
TOGO	+	-	+	-	-	-	-	-	+	+	+	-	-	+
ZAMBIA	+	-	-	-	-	-	-	-	+	○	+	+	+	+
TOTALS - LARGE IMPROVEMENT														
TOTAL +	1	2	2	2	3	3	3	1	7	6	6	2	3	1
TOTAL ○	1	0	0	1	0	0	0	0	0	1	0	1	2	0
TOTAL -	5	2	1	3	2	3	4	0	0	0	1	1	1	0
TOTALS - SMALL IMPROVEMENT														
TOTAL +	2	1	0	3	3	1	1	1	9	5	7	4	2	2
TOTAL ○	3	0	1	0	1	0	0	0	0	4	0	0	4	0
TOTAL -	3	6	2	3	3	5	5	2	0	0	0	0	3	0
TOTALS - DETERIORATION														
TOTAL +	2	1	1	1	1	1	1	0	11	8	10	3	4	7
TOTAL ○	1	1	1	1	0	0	0	2	0	3	0	0	3	0
TOTAL -	8	4	2	3	3	3	2	2	0	0	0	2	3	0

KEY:

+ = IMPROVED /4
- = WORSENE
○ = STABLE

1/ TABLE SHOWS TRENDS BETWEEN AVERAGE VALUES OF INDICATORS FROM 1983-85 AND THEIR AVERAGE VALUES FROM 1967-69
2/ CAR DATA SHOWS TRENDS BETWEEN AVERAGE VALUES OF INDICATORS FROM 1985-86 AND THEIR AVERAGE VALUES FROM 1965-69
3/ LITERACY DATA SHOWS TRENDS BETWEEN THE YEAR 1985 AND THE YEAR 1980
4/ FOR EXPENDITURE DATA, A PLUS MEANS AN INCREASE AND A MINUS MEANS A DECREASE

TABLE 48
 SUMMARY OF TRENDS - USAID /1

COUNTRY	INCOME		PUBLIC EXPENDITURE				OUTCOMES							
	CONSUMPTION GDP	HOUSEHOLD INCOME	TOTAL EXP. GDP	EDUCATION SHARE	HEALTH SHARE	EDUCATION EXP. GDP	HEALTH EXP. GDP	IMPROVED CHILDREN	CHILD MORTALITY	LIFE EXPECTANCY	VACCINATION RATE	NET ENROLLMENT	STUDENTS/TEACHER	LITERACY RATE
STRONG POLICY														
BOTSWANA	-	-	-	0	+	+	+		+	+	+	+	0	
BURUNDI	-	-	-	-	+	-	-		+	+	+	0	-	+
SIERRA LEONE	+	+	+	+	+	+	+		+	+	+	+	+	
MALAWI	+	-	-	+	+	-	+	-	+	0	+	+	0	
MAURITIUS	+	-	-	-	+	0	+		+	+	+	0	-	
MEDIUM POLICY														
SENEGAL	-	-							+	+	+		+	+
BURUNDI	0			+	0				+	0	+		-	+
CAMEROON	0	+	0	+	+	+	+	0	+	+	+		0	
CAPE VERDE	+								+	+		+	+	
CHAD		-							+	+				
COTE D'IVOIRE	-	-		0	-				+	+	+		0	+
GUINEA									+				-	
PAPUA NEW GUINEA	+								+	+	+		-	+
KENYA	0	-	-	+	-	+	-	+	+	+	+		+	+
LESOTHO	0			+		+	+		+	+	+	+	-	
MADEAGASCAR	-	-		-	+	-	-	-	+	0	+		0	
MALI	0	+	0	-	-	-	-		+	+	+	+	+	+
NEPAL	-	-							+	+			0	
GHANA	-	-							+	+		+	-	
SWAZILAND			-	+	0	-	+		+	+	+	0	0	+
TANZANIA	+	-							+	0	+	-	+	
TOGO	+	-	+	-		-	-		+	+	+	-	-	+
UGANDA									+	0	+		0	
WEAK POLICY														
ANGOLA									+		+		0	
BURKINA FASO	0	-							+	+	+	+		
MAURITANIA	+	-							+	+	+		-	
MOZAMBIQUE	-								+	+	+	+	+	+
NERER	-	-			+	-	-		+	+	+	+	0	
RWANDA	-							0	+	0	+	+		+
ZAMBIA	-				+	-	+		+	+	+			
ZAMBIA	+		-						+	0	+	+	+	+
ZIMBABWE	-	+	+	+	+	+	+	+	+	+	+		+	
TOTALS - STRONG														
TOTAL +	2	1	1	2	4	2	4	0	5	4	5	2	1	1
TOTAL 0	0	0	0	1	0	1	0	0	0	1	0	2	2	0
TOTAL -	3	2	3	2	0	2	1	1	0	0	0	0	2	0
TOTALS - MEDIUM														
TOTAL +	4	2	1	5	2	3	3	1	18	13	12	4	5	6
TOTAL 0	5	0	2	1	2	0	0	1	0	4	0	1	6	0
TOTAL -	5	8	2	5	5	6	7	1	0	0	2	3	6	0
TOTALS - WEAK														
TOTAL +	2	1	1	1	3	1	2	1	9	6	9	5	3	3
TOTAL 0	1	0	0	0	0	0	0	1	0	2	0	0	2	0
TOTAL -	5	1	1	4	2	4	3	1	0	0	0	1	1	0

KEY:

+ = IMPROVED /1
 - = WORSEMED
 0 = STABLE

1/ TABLE SHOWS TRENDS BETWEEN AVERAGE VALUES OF INDICATORS FROM 1980-82 AND THEIR AVERAGE VALUES FROM 1967-69
 2/ OUR DATA SHOWS TRENDS BETWEEN AVERAGE VALUES OF INDICATORS FROM 1980-82 AND THEIR AVERAGE VALUES FROM 1968-69
 3/ LITERACY DATA SHOWS TRENDS BETWEEN THE YEAR 1980 AND THE YEAR 1970
 4/ FOR EXPENDITURE DATA, A PLUS MEANS AN INCREASE AND A MINUS MEANS A DECREASE

- The primary net enrollment rate and student-teacher ratio improved more for nonadjusters, according to the World Bank schema, but according to the USAID classification they improved more for adjusters.
- There was no difference between adjusters and nonadjusters in terms of illiteracy improvement over the decade: literacy improved in all countries in our sample.

In sum, both classifications indicate that adjusting countries did better with respect to private consumption, education and health shares, and real per capita education expenditure; performed no differently with respect to prevalence of underweight children, CMR, life expectancy, and illiteracy; and did only very slightly worse with respect to minimum wages and vaccination coverage. They give conflicting results on net primary enrollment ratios, and student-teacher ratios, with one classification saying they improved for adjusters and the other for nonadjusters. For real per capita health expenditure, one classification indicated no difference between adjusters and nonadjusters while the other indicated that adjusters fared worse.

The same central conclusions emerge from the African numbers as from those for Latin America. A weak conclusion is that the adjusting countries performed better or as well as nonadjusting countries according to most of the indicators, by whatever classification is used. The strong conclusion is that the African numbers give very little support to the thesis that the burden of structural adjustment programs has fallen on the poor. The status of the poor improved in the 1980s by many of the standard social indicators, and this was little different in adjusting and nonadjusting countries.

Put another way, there is no evidence in the available national data to support the assertion that African countries undertaking market oriented-economic reform programs fared worse as measured by indicators of average living conditions than countries that have not undertaken such programs. To the contrary, most of the indicators suggest that the adjusting countries have done a slightly better job of protecting the living standards of the poor compared with the nonadjusting countries.

CHAPTER NINE

EXPLAINING THE PARADOX: IMPROVED OUTCOMES AMID DECLINING INCOMES AND PUBLIC EXPENDITURES

The evidence assembled in previous chapters reveals the paradoxical coexistence of reduced welfare as measured by incomes and public expenditures and improved outcomes as measured by social indicators. National income per head fell in the 1980s in both LAC and SSA. Declining per capita GDP and — in SSA — very poor agricultural performance, must have deepened poverty among the rural majorities. Absolute poverty almost surely increased in both regions and real wages clearly deteriorated. In Africa, private consumption fell significantly, and in Latin America did not improve. Real per capita expenditure on the social sectors declined in most cases, and trends in social sector shares were ambiguous. Yet almost all outcome measures or social indicators show continuing improvement, and none generally declined.

POSSIBLE EXPLANATIONS OF PARADOX

Outcome Indicators are Wrong or Misleading

Many of the data are indeed weak. Country coverage is partial. Case study numbers differ from those given in the processed data sets of international agencies such as UNESCO or the IMF. Most of the data used in this study are from the yearbooks of the international agencies (FAO, UNESCO, IMF, World Bank, and so forth). Most analysts believe these are the most carefully compiled and hence credible sources. But this doesn't mean they are very robust.

- Infant and child mortality estimates are certainly uneven in quality. The series most commonly used — produced by the United Nations — uses numerous interpolations and extrapolations. Some of the numbers look peculiar.¹ But a recent effort at weeding out everything except reliable, database estimates yielded data for 1975-80 and 1980-85 that show the same strong decrease as the U.N. data.² Such cleaned data are not available for the period since 1985. But United Nations data are improving steadily and they continue to show declining trends.
- UNESCO is the major source for school enrollment data supplied by governments or by UNESCO itself. UNESCO warns that enrollment data show a good deal of sensitivity to the month of collection because of dropouts. And other warnings are in order — not least that declining real budget allocations have severely eroded capacity in statistics-gathering agencies in many countries. But these data are among the easiest to collect on a systematic basis and they are checked and processed by numerous international agencies — the World Bank, UNESCO, and UNICEF, for example.

¹ Ethiopia and Somalia, for example, both experienced an average child mortality rate of 262 per thousand, which remained unchanged during 1970-1975, 1975-1980, and 1980-1985.

² Hill and Pebley, 1989. See also, E. Bos, M. Vu, and P. Stephens, "Sources of World Bank Estimates of Current Mortality Rates," Staff Working Paper # 851, World Bank, February 1992, pp. 6-8.

- For vaccination rates, the primary source of error is that many countries report distributed volumes instead of volumes of live vaccine consumed. The difference can be large in countries with weak distribution systems. But the increases in coverage over the 1980s, even discounted for this factor, remain large.

These are only examples; conceptual problems and data limitations surround most of the measures and indicators of poverty and welfare. But these are the best data to be found, the same data that most analysts use in debates about trends in social conditions. Moreover, much of it is getting better. It is unlikely that errors are so big and so consistent that intracountry tendencies are affected.

The data may not be wrong, but they are partial and often old. The IMF data (in its *Government Financial Statistics Yearbooks*) has frequent gaps in country coverage and for the late 1980s. This is especially so for SSA. The other international agency-provided data are only a little more comprehensive and up-to-date. This helps account for the diversity of conclusions reached by different analysts of poverty change and the movement of social indicators. Analysts often use different data sets, substituting country data for IMF or World Bank sources, or supplementing them with such data. They get fuller coverage but different results, and it is often impossible to trace the reasons for the differences.³

The indicators may also be misleading: they can be measuring the wrong things. In education and health, for example, it is not only changes in aggregate sectoral expenditures that matter for the poor, but its intrasectoral allocation — the way it is distributed among salaries, subsidies, and supplies, and levels of schooling or types of medical intervention. Social sector spending may increase, but the money may be badly used from the point of view of the poor — for teachers or doctors' salaries, for example, instead of for school supplies and medicines or primary health care. More generally, the national averages for the indicators may be improving but the poor may not be benefitting. Enrollment expansion, for example, may be concentrated on urban boys, bypassing disadvantaged rural and female populations.⁴ Or crude enrollment ratios may be rising while the real output — cognitive achievement — may be declining.

On the other side, outlays (on education especially) should not simply be deflated by a price index without taking account of the movement of salaries. Given increments in salary bills will finance more teaching (and medical) staff as real salaries fall. So a decline in public spending doesn't necessarily mean a corresponding decline in services provided.

These and other distorting possibilities can't be rejected out of hand. There may have been an increase during the 1980s in the imbalance between salary and nonsalary components of social sector budgets, particularly in Africa — a negative factor for quality of education. But the sparse information on test results does not show declining student performance at the primary level.⁵ And the student-teacher ratio, for what it is worth as an indicator, decreased (improved) in both regions over the decade.

³ E. Jespersen, "External Shocks, Adjustment Policies and Economic and Social Performance," in *Africa's Recovery in the 1990s*, G. Cornia, R. van der Hoeven, and T. Mkandawire, eds., UNICEF, St. Martin's Press: New York, 1992.

⁴ This seems to have happened in the Côte d'Ivoire in the middle 1980s. School enrollments held up in general, but fell sharply for girls from low-income households. (Grootaert, 1993, p. 84.) These survey data show the poor benefiting less from many basic services.

⁵ Test score data exist for scattered years for only a few countries (see Grosh, "Social Spending . . .," 1990, Appendix 7). No trends are visible.

Although survey data from some case studies (for example, in the Côte d'Ivoire) show lower enrollment ratios for females from poor households while average enrollments improved, other evidence suggests that the average increases over the recent past have substantially increased access for children from rural households and for women.⁶

In the absence of convincing evidence to the contrary, the most reasonable conclusion is that in most countries of Latin America and Africa the quality of primary education probably did not diminish significantly in the 1980s. Growth in enrollment rates can be taken to indicate an effective increase in access for poorer and disadvantaged groups.

With respect to social sector spending, then, as with the other measures, erroneous, irrelevant or misleading data are probably not a significant factor in explaining the paradoxical results.

We have thus far discussed shortcomings in social indicators other than those that are income based. But the headcount poverty and other income-based indicators also have great weaknesses. For one thing they do not take into account the growing informalization of African economies over the 1980s — the fact that informal sector-generated incomes grew much faster than those in the formal economy. These not only grew faster but are much harder to measure. So the income-based measures may be no more reliable than the other welfare indicators — or even less reliable.

Outcome Measures are Correct, but Lagged

A good deal of physical infrastructure was put in place in prior decades — in the social sectors (schools, hospitals, primary health care posts) as well as in general (roads, communications, water and power facilities). During the 1980s this reservoir of facilities and services was drawn upon but was generally poorly maintained and expansion slowed. Meanwhile, positive lagged effects persisted; earlier expenditures on school building increased female access to education, for example, which paid off in healthier children, increased use of health services, and better educated children. Better roads continue to pay off in increased ease of physical access to clinics, schools, and markets.

The only attempt to explain the performance of social indicators in the World Bank's second report on adjustment lending (RAL II) is along these lines. The report states (p. 26): "Short-run indicators of living conditions have not deteriorated in the early intensive adjustment lending (EIAL) countries, and long-run indicators have continued to improve *because of past investments*" (emphasis ours). But the report gives no further elaboration.

Some part of the explanation probably lies here. Undoubtedly strong inertial factors are at work, not only because of past investments but because the cumulative effects of past improvements dilute negative tendencies in social indicators caused by unfavorable changes in inputs. A famous economist once noted that nature rarely makes large jumps, and this is probably one of the reasons why impacts of

⁶ In Latin America, gross primary enrollment ratios for women in the late 1980s were more than 100 percent and only slightly less than that for men. In Sub-Saharan Africa 60 percent of school-aged females were in primary school in the late 1980s. This was less than the ratio for boys (76 percent), but the rate of growth of female enrollments over the past quarter century was much faster than male enrollments (UNICEF, *The State of the World's Children*, 1994, p. 82). Some country studies also reveal much faster growth of enrollments in rural areas than in urban in the 1980s. (Cf. E. Berg, *Adjustment Postponed; Policy Reform in Senegal in the 1980s*, Chapter 6. Report prepared for the Agency for International Development, Elliot Berg Associates, 1990.)

even major reductions in total government spending public spending on health and education, are unlikely to show up in the short term.

But this is only part of the infrastructure story. For countries that have suffered a long period of deterioration in infrastructure because of war, civil strife, or plain bad economic management, peace or a policy turnaround often entailed rehabilitation of infrastructure. For example, Tanzania's road system was in disastrous condition in the late 1970s and early 1980s. A policy turnaround and renewed external assistance led to major upgrading of roads. Comparable effects occurred in Ghana, Guinea, Mozambique, El Salvador, and perhaps other countries.

For this reason and others, the lag effect or inertia does not warrant the role of unique explanation given to it some observers. It is undoubtedly a factor in explaining the paradox, but of uncertain weight.

Some Outcome Measures (Health) Reflect Success of Low-Cost Interventions

Three relatively low-cost interventions have had a certain and quick impact on health in Latin America and Africa as elsewhere in the developing world:

- **Oral Rehydration Therapy (ORT).** In 1982, diarrhea was estimated to cause 4 to 5 million deaths per year. In 1989, UNICEF estimated that ORT was saving three quarters to 1 million lives per year. ORT use has spread at an astounding rate. In 1984, in Latin America and the Caribbean, fewer than one-third of children under five had access to ORT and just 12 to 15 percent of children were using it. Three years later, in 1987, more than 60 percent of children under five had access to ORT and it was being used by nearly 40 percent of them. In Africa the spread of ORT has been slower, but it has picked up in recent years. In 1989 almost 20 percent of diarrheal cases in children under five were being treated with ORT, twice as many as in 1985.⁷ Recent WHO data for the early 1990s shows generalized speed-up in adoption of ORT throughout the developing world. Table 49 shows it is most widely used in SSA and LAC.
- **Vaccinations.** In 1977, at the start of the Expanded Program of Immunization in the LAC region, fewer than 30 percent of children were immunized. By 1989, more than 60 percent of children were fully vaccinated against DPT, polio, measles, and tuberculosis. In Africa,

⁷ Betty R. Kirkwood, "Diarrhea," in R. Feachem and D. Jamison, eds., *Disease and Mortality in Sub-Saharan Africa*, World Bank, 1991. Some recent studies suggest that the impact of ORT in reducing infant and child mortality has been exaggerated. In Bangladesh, acute watery diarrhea, the type most likely to respond to ORT, accounted in the regions studied for less than 6 percent of infant deaths and 11 percent of deaths of those 1-11 months old. Other studies reveal partial and frequently inappropriate use. However, one reappraisal of ORT impact, taking these kinds of considerations into account, nonetheless indicates that ORT reduces child mortality by some 15 percent (Hoda Rashad, "A Reappraisal of How Oral Rehydration Therapy Affected Mortality in Egypt," WPS 1052, World Bank, November 1992).

TABLE 49

PERCENTAGE OF DIARRHEA EPISODES TREATED
WITH ORAL REHYDRATION THERAPY (ORT)

	1980	1990
SUB-SAHARAN AFRICA	13	59
SOUTH AMERICA	27	58
CENTRAL AMERICA & CARIBBEAN	53	55
MIDDLE EAST & NORTH AFRICA	27	47
SOUTH ASIA	26	35
SOUTH-EAST ASIA	12	29

SOURCE: UNPUBLISHED WHO DATA, REPRODUCED IN UNICEF, 1994

the vaccination rate for these diseases climbed from 42 percent in 1980 to 71 percent in 1989.⁸

- The introduction of **low-cost hand pumps** was instrumental in improving access of rural populations, especially in Africa, to safer sources of drinking water. In 1900 only 22 percent of rural Africans had access to safe water, and 42 percent of those in LAC. In 1990 the proportion was 38 percent in Africa and 52 percent in LAC.⁹

Public Expenditure Measures are Incomplete

As repeatedly noted, there are important gaps in data. With respect to expenditure data, information is incomplete on non-central-government sources of finance for health and education. State and local governments have major responsibility for social sector spending in many countries — Nigeria and Brazil for example.

Also, official data on public expenditure often do not include the external contributions — official development assistance and the inputs of religious and other NGOs. A large share of the total expenditure on health and education in many countries is thus omitted, and this share almost surely grew over the decade of the 1980s. Foreign aid agencies financed 50-80 percent of the costs of immunization programs in Africa, for example.¹⁰ Church groups are major providers of health and education services, especially in Africa. A significant share of the unexpected improvements in public health is probably attributable, therefore, to the efforts of NGOs and other donors.

Expenditures by private households make up a big share of total social sector spending. Table 50 shows the relative enrollments in private and public schools in 11 African and 17 Latin American countries.

Private provision and financing is clearly substantial in many countries. And there is some evidence that it expanded during the 1980s. In Uganda, for example, public authorities gradually cut funding for primary education, so that by 1990 private sources were paying close to 90 percent of total costs.¹¹ By the mid-1980s in Zaire, government was financing only about 15 percent of primary and secondary education costs. In 1988 parents were paying 75 percent of these costs, with most of the rest financed by subsidies from the private religious organizations that actually managed 80 percent of the

⁸ According to WHO and UNICEF data (August 1993), the percentage of the developing world's one-year-olds who were protected against the four major vaccine-preventable diseases grew from 25 percent for measles and 35 percent for polio3, DPT3, and TB in 1984 to 75 percent for measles and more than 80 percent for the others in 1990. A downturn is recorded for the early 1990s, but coverage for all four remained at 75 percent or above in 1992. (Cited in UNICEF, 1994, p. 3.)

⁹ UNICEF, 1994, p. 15. Similar improvement took place throughout the developing world. Access to safe water increased from 30 percent of rural populations in the Middle East and North Africa in 1980 to 51 percent in 1990, and in Southeast Asia from 31 percent to 66 percent.

¹⁰ Jespersen in Cornia et al., eds., 1992, p. 39.

¹¹ World Bank, "Uganda: Public Choices for Private Initiatives," Vol. 2, 1991.

TABLE 50

ENROLLMENT IN PRIVATE SCHOOLS IN AFRICA AND LATIN AMERICA
SELECTED COUNTRIES c. MID-1980s

% PRIVATE PRIMARY % PRIVATE SECONDARY

AFRICA

Cote d'Ivoire	11	26
Kenya	1	49
Lesotho	100	89
Sudan	2	13
Cameroon	43	57
Chad	10	6
Liberia	35	43
Niger	5	14
Nigeria	26	41
Togo	29	16

LATIN AMERICA

Argentina	17	45
Bolivia	9	24
Brazil	13	25
Chile	18	23
Colombia	15	38
Costa Rica	4	6
Ecuador	17	30
El Salvador	6	47
Guatemala	14	43
Haiti	42	76
Honduras	5	51
Jamaica	5	76
Mexico	6	25
Panama	5	14
Paraguay	13	37
Peru	13	37
Venezuela	13	17

SOURCE: E. JAMES, "WHY IS THERE PROPORTIONATELY MORE ENROLLMENT IN PRIVATE SCHOOLS IN SOME COUNTRIES?" WPS 1069, WORLD BANK, JAN 1993.

"public" schools.¹² Most of these estimates of private financing do not appear to include official development assistance.

In the health sector, public expenditure reviews and other studies reveal that private expenditure comprises more than half of total spending in Benin, Sudan, Ethiopia, Ghana, and Côte d'Ivoire. By another count, the private sector accounts for 35 to 70 percent of total health expenditures in Ghana, Kenya, Mali, Rwanda, Sudan, and Zambia.¹³ A similar pattern prevails in Latin America.

In Zaire, since 1981, primary health care has been provided mainly by NGOs. Overall, in 1986, the Government of Zaire financed only 5 percent of total recurrent health expenditures, while donors paid another 5 percent, consumers 20 percent, and private formal sector enterprises the rest.¹⁴ Zaire is not alone in witnessing public sector disengagement from health care provision. In Senegal, the private health care system has gradually expanded; at the end of the decade it was responsible for one-third of medical visits.¹⁵ Everywhere public sector doctors are setting up private practices, open or disguised.¹⁶ And in much of SSA, donor funding has helped fill gaps.¹⁷

Latin American data seem to be less plentiful than African. As an example of the potential importance of private spending, Grosh cites the case of Bolivia, where it was found that NGOs channeled \$19 million — independent of PL-480 funds — into the health sector, while the Ministry of Health had a budget of \$22 million.

Expanded official development assistance, larger NGO outlays, and greater private household expenditures are probably important factors in explaining positive social outcomes in the face of declining public expenditures. In the presence of growing needs, external participants become more active, especially NGOs. And in the face of deteriorating public services, private provision increased and private expenditures rose, offsetting some of the reductions in public expenditure.

Improved Efficiency and Equity of Expenditures

It is conceivable that outcomes have not deteriorated, or have even improved despite reduced public expenditures, in part because resources were used more efficiently, in the sense of producing more antipoverty bang per dollar spent.

This could happen in two ways. "Internal" efficiency can increase. This means greater cost-effectiveness — achieving given objectives more cheaply, or getting more output from given inputs. Or

¹² World Bank, "Zaire Public Expenditure Review," 1991.

¹³ Germano Mwabu, "Financing Health Services in Africa," World Bank, WPS 457, June 1990.

¹⁴ World Bank, "Zaire Poverty Assessment," 1990.

¹⁵ M. Gallagher and O. Ogbu, "Public Expenditures, Resource Use and the Social Sectors in Sub-Saharan Africa," World Bank, 1989, p. 56.

¹⁶ For Côte d'Ivoire, for example, see Mwabu, 1990.

¹⁷ See, for Uganda, World Bank, "Uganda: . . .," 1991, where it is mentioned that donor funding of health services increased from \$5 million in 1982/1983 to \$35 million in 1989/1990.

there can be an increase in "external" efficiency, which means allocating resources between different uses so as to maximize output. In education spending, external efficiency usually means allocating marginal resources to primary levels, since social rates of return are highest there.¹⁸ More specifically, public expenditures are regarded as having greater antipoverty impact when they are allocated to primary, rural, and female education and preventive, primary, and rural health care, because these benefit lower income groups.

Efficiency

The most frequently used indicator of internal efficiency in the social sectors is the ratio of salaries to total recurrent spending. It is an ambiguous indicator, since a rise need not be bad (if it reflects higher pay for motivation-poor teachers, or more teachers for crowded schools) nor a fall good (because savings from salaries may go to increase subsidies of low priority, and not to supplies and maintenance). Moreover, the strength of the link between school facilities and cognitive achievement is not well established.¹⁹ But the basic idea seems right: teaching systems with no pencils, paper, books or roofs on schoolrooms are unlikely to produce high-quality graduates.

Data for Latin American countries are sparse for this indicator. Those few data at hand show no significant trends.²⁰ Clear or strong trends are not discernable for education spending in Sub-Saharan Africa either, though there does seem to be a slight tendency in available country studies for salaries (and subsidies for postsecondary students) to have grown relative to supplies and maintenance.²¹

¹⁸ According to a recent synthesis of a large number of rate-of-return studies, the social rate of return for LAC countries was estimated to be 18 percent for primary schooling, 13 percent for secondary education, and 12 percent for postsecondary. In SSA the comparable figures are 24 percent, 18 percent, and 11 percent. (G. Psacharopoulos, "Returns to Investment in Education: A Global Update," WPS #1062, World Bank, January 1993.)

¹⁹ Cf. Jean-Pierre Jarouse and Alain Mingat, "Pour une politique de la qualité de l'école primaire en Afrique. Evaluation des acquis des élèves en CP et en CM au Togo," *Revue d'économie du développement*, 3/1993, pp. 29-47.

²⁰ Grosh, "Social Spending . . .," 1990.

²¹ A move toward better balance in salary-nonsalary budgets might help explain how the education and health indicators continued to improve in the 1980s in the face of reduced incomes and some cutbacks in public spending. But no such move occurred, as the following typical examples attest. At the federal level in Nigeria, real personnel expenditures in education remained constant between 1981 and 1985, while other recurrent expenditures declined to one-fifth of their 1981 levels. (World Bank, "Public Expenditure Review: Nigeria," 1985.) There does not seem to have been much improvement since 1985. In Côte d'Ivoire, personnel expenditures increased relative to total recurrent expenditures in the health sector from 68 percent in 1981 to 77 percent in 1990, while spending for supplies fell by about the same proportion. (World Bank, "Public Expenditure Report, Côte d'Ivoire," 1990.) In Kenya, the rise in salary shares of the primary school budget was from 84 percent in the early 1980s to 91 percent in 1990. In the health sector, between 1985 and 1988, personnel costs rose by 6.4 percent in real terms, while nonwage operations and maintenance dropped by 4.4 percent. ("Kenya Human Resources: Improving Quality and Access," World Bank, June 1991.) In Togo, personnel expenditures accounted for 60 percent of all health expenditures in 1981 and 80 percent at the end of the decade. (World Bank, "Poverty Profile of Togo," 1989.) In Senegal, the share of salaries in the education sector rose from 59 percent in 1980/1981 to more than 73 percent in 1990; in health it rose less sharply. (Berg, 1990, pp. 181 ff.) In Zimbabwe, personnel costs were 78 percent of total education spending in 1981/1982 and 88 percent in 1989/1990. However, the number of students increased strongly during these years. (See David E. Sahn and Rene Bernier, "Evidence from Africa on the Intrasectoral Allocation of Social Sector Expenditures," draft, Cornell Food and Nutrition Program, April 1993; and David Sahn,

In sum, personnel expenditures were favored over other budget categories as the decade progressed. However, this general tendency masks some diverse situations — not all of them indicative of declining efficiency. In Zimbabwe, for example, the impressive growth in enrollments required an accommodating increase in the number of teachers, which explains the growth in personnel expenditures. That this expansion was achieved with only marginal declines in primary school examination results and an actual increase in per capita achievement on the secondary school "O" level examinations is testimony to the efficiency of Zimbabwe's educational system.²²

Few additional efficiency indicators exist, and fewer still that are comparable over time. In the education sector, reduction of repetition rates or improvements in completion rates would be positive indicators, as would class size. But data are patchy and inconclusive. They show no tendencies over the decade.²³ In the health sector the ratio of nurses to doctors in the public sector is often used as an efficiency indicator. Evidence from Latin America suggests that this ratio is low (less than one) and has fallen in at least some LAC countries.

It is possible that under the pressure of fiscal austerity and urging by external partners, administrative reforms have occurred that have raised social sector efficiency. In Senegal, for example, Ministry of Education staff were redeployed from administrative posts to classrooms, adding almost 1,300 teachers. Mixed grade classes and double shifts were also introduced to economize on physical plant and teaching capacity.²⁴ Similarly, increased teaching loads and multiple shifts were introduced in Ethiopia. Other examples undoubtedly exist, but are not documented.

Improved efficiency could be revealed in higher quality of output as measured, for example, by performance on examinations. Some cases exist. Progression rates for Malawian students from Standard 1 to Standard 4 have increased from about 36 percent in the early 1980s to more than 50 percent in 1986/87. (A key element in the Malawian education adjustment program is the presence of donor [IDA] funding for nonwage current expenditures, which has made textbooks widely available at the primary level.²⁵) Botswana's school graduates have raised their performance on standardized test scores, as have those in Zimbabwe.

In other cases, however, performance has worsened. In Burkina for example, rapid growth in enrollments in the first half of the 1980s (more than 12 percent a year) led to increasing use of unqualified and poorly paid teachers at the primary and secondary levels, which may explain the drop

"Public Expenditures in Sub-Saharan Africa During a Period of Economic Reform," *World Development*, May 1992.)

²² "Zimbabwe, A Review of Primary and Secondary Education: From Successful Expansion to Equity of Learning Achievements," World Bank, September 21, 1990.

²³ Scattered information available on primary school completion rates shows small changes and no trends between 1980 and 1985 in either Africa or Latin America. Student-teacher ratios declined during these years in both regions, from 45 to 43 in Africa, from 32 to 30 in LAC. (van der Gaag et al., 1991.)

²⁴ Berg, 1990, pp. 189-90.

²⁵ World Bank, "Malawi: Human Resources Development Study," April 23, 1990.

of almost 20 percentage points in the rate of success on the Baccalaureate examination between 1980 and 1987.²⁶

We could find no other relevant data on trends in internal efficiency of education and health spending. The evidence available is so patchy that not much can be said that is general. Nonetheless, it seems clear that more efficient use of social sector resources was not a significant or general factor in explaining the public expenditure decline-enrollment increase, which is part of the paradox of the 1980s. If anything, there was a slight tendency — at least in Africa — toward more *inefficient* use of resources in the sense that fewer supplies and maintenance activities were financed, relative to salaries.

Improved Equity in Expenditures

Proper evaluation of changes in the equity of public expenditures requires analysis of total spending to identify beneficiaries by income group, and the tracing of changes in levels and beneficiaries over the appropriate time period. Little information of this kind exists in LAC or SSA, even for social expenditures alone. We look at three shorthand measures here: changes in shares of education budgets going to primary education, changes in shares of health budgets going to preventive or rural care, and examples of increased attention to targeting the poor.

Latin America. Grosh (1990) found, for eight countries with data, no clear tendency between 1980 and 1986 in distribution of budget allocations between higher education and primary. Data from the International Monetary Fund's *Government Financial Statistics* show some tendency toward increasing shares for primary and secondary levels, but much variation.²⁷

Information on internal allocation of health expenditures between curative and preventive or urban and rural is very thin. Too little is available to give any clear sense of trends.²⁸

With respect to our final indicator of change in the equity of social sector spending — better targeting on the poor — much scattered evidence of an anecdotal kind suggests that such targeting may be part of the explanation for the paradox. Numerous examples exist.

- In Chile, government expenditures on poverty reduction increased and the programs were very well targeted on the poor: emergency employment programs, child care centers, school lunches, rehabilitation centers for child nutrition. In addition, Chile's social policy promotes efficiency and equity. Its educational subsidies were reformed in 1981 in a way that spread

²⁶ Gallagher and Ogbu, 1989.

²⁷ Guatemala and Uruguay both show some trend downward through the decade. Costa Rica did not succeed in protecting primary education expenditures during the period of severe budgetary reductions: they fell from 37 percent of total expenditures in 1980 to roughly 33 percent from 1982-1988. At the same time, Costa Rica increased the share of its education budget going to higher education from 34 to 49 percent.

²⁸ However, of five LAC countries for which information could be found, there does not appear to have been much reallocation. Jamaica was able to increase expenditures on both primary and secondary care by reducing expenditures on administration. El Salvador maintained the composition of its budget. Argentina, Bolivia, and Venezuela all reduced the allocation for primary care; both Bolivia and Venezuela show a sharp increase in allocations for hospital care.

the benefits more evenly between income groups. Primary education's share of the total education budget rose by almost a third from the mid-1970s to the mid-1980s and the share of housing subsidies going to the poorest 30 percent doubled.

- In Jamaica, food stamps are given to all pregnant women and children under five. To reduce leakage, participants are required to go to public clinics for these stamps. In the late 1980s, as a result, 72 percent of the women in the lowest consumption quintile of the population were receiving food stamps, compared with 4 percent in the highest group; and about two-thirds of poor households with children benefitted, as against 11 percent in the richest 20 percent of households.
- In Costa Rica, health and nutrition programs have been targeted to the 30 cantons with highest infant mortality rates. Average rates have fallen, and regional differences narrowed.
- Mothers' clubs are used to target food aid in Bolivia. Attending women receive food supplements and training for better health and nutrition.

These are only examples from what is undoubtedly a large body of experience in the 1980s. They suggest that increased concern with targeting the poor is probably a significant factor in explaining the paradox, at least in some countries. Overall, however, there is slender evidence for increased equity of public expenditures in Latin America during the decade.

Africa. Poverty-targeted programs such as those in Latin America outlined above are more recent in Africa. Poverty alleviation programs have come mostly after 1886 — for example in Mozambique, Ghana, Rwanda, and Madagascar. It's too early to see impacts. We focus therefore on intrasectoral reallocation (within education and health sectors), which is in fact the most-discussed aspect of the expenditure equity question.

The extreme inequity of public spending on education and health in many African countries has been recognized for a long time. Most African countries have followed social sector strategies that have concentrated on providing services to urban areas, allocating relatively few resources to rural populations where the bulk of the poor are located. In concrete terms this translates into social sector budgets that privilege university rather than primary education, curative rather than preventative health services, and urban hospitals rather than rural primary care units.

This is borne out by budget breakdowns available for about 25 countries, mostly from World Bank public expenditure reviews and poverty assessments. These indicate that in the majority of SSA countries, primary education recurrent budgets receive less than 50 percent of the sectoral totals; in 10 of 18 countries with comparable data, universities receive 20-30 percent of total education budgets. In recurrent health budgets, preventive services and primary care typically receive only 20 percent of the total.

The magnitude of the bias against the poor in many countries becomes evident when methods of financing education at the primary and university levels are compared. Such diverse countries as

Lesotho, Kenya, and Senegal all subsidize universities at a much higher rate than primary schools.²⁹ Similar examples of inequities in health are not difficult to find. In Togo, for instance, two-thirds of the country's health workers live in Lome, leaving the remaining third to deal with the 83 percent of the population that resides outside the capital.³⁰ In numerous countries health budget spending shares allocated to preventive services are derisory: 10 percent in Kenya, 7 percent in Malawi, 6 percent in Tanzania, 12 percent in Zimbabwe.

These numbers confirm the generally held view that most African states could significantly improve the poverty-alleviating impact of their social sector services by reallocation — from university to primary levels and, within university budgets, from scholarships and subsidies to students to instruction-related expenditures, from curative services and urban hospital-based services to primary health care and preventive services. The issue here is whether such reallocations occurred during the 1980s and might help explain the inputs-outcomes paradox.

It seems that little such reallocation took place in the 1980s. A few instances are identifiable; Lesotho, for example, reoriented its health spending in a pro-poor direction.³¹ However, other positive health sector examples are hard to find. Available country-level evidence indicates constancy in allocation between curative (and/or urban) and preventive (and or rural) services, or increasing distortions. This is the case, for example, for Kenya through 1989, Madagascar, Senegal, Cote d'Ivoire, Ghana, and Uganda.

Intrasectoral reallocations in education were more frequent. Shares of recurrent budgets going to primary level education rose in Mozambique between 1985 and 1990 (44 to 50 percent); in Guinea between 1986 and 1990 (31 to 33 percent), Togo (31 to 38 percent between 1980 and 1990), and in Malawi, Lesotho, Niger, Ghana and (until 1990, when a reversal occurred) Senegal. Available documentation indicates that in other countries shares were unchanged or the primary education share worsened: for example, in Gambia, Tanzania, Benin, Burkina, Kenya, and Zimbabwe.³²

²⁹ In Lesotho, parents of primary school students contributed 19 million Malotis toward recurrent costs in 1986/1987, whereas the government paid only 17 million. At the National University of Lesotho, however, public authorities finance virtually all recurrent costs. Similarly, the Kenyan government picked up 62 percent of the per student cost of education at public universities, while financing only 44 percent of the average primary student's educational costs. As in Lesotho, most of the parental/student contribution at the university level consists of a loan program, available to all without regard for need, that has been plagued by extremely low recovery rates. Given the fact that children of uneducated parents represent only 16 percent of public secondary students (based on a 1980 survey), the generous subsidies accorded to university students go to families who are in the upper-income brackets. Senegalese university students (80 percent of whom are from urban areas) won in the 1980s a series of social entitlements which, per student, amount to 1.3 times per capita GDP.

³⁰ World Bank, "Poverty Profile of Togo," April 1989.

³¹ Although the Health Ministry's recurrent budget does not explicitly distinguish preventative from curative spending, the budget share of the two programs having the most impact on primary and preventative care rose from 28 percent in 1981/1982 to 37 percent in 1986/1987.

³² The examples of Kenya and Zimbabwe are instructive because, as in Senegal, a large percentage of the increase in recurrent expenditures allocated to higher education was used to pay for noneducational student social services — mainly subsidized food and housing. This underlines the fact that in many countries university students have been successful in protecting their privileges.

This survey of available evidence indicates that intrasectoral reallocations were too small and too sparse to have played much of a role in the maintenance of social welfare indicators in the 1980s.

DID ADJUSTMENT POLICIES MAKE A DIFFERENCE?

It remains to ask, finally: Is there any evidence that efficiency and equity improvements took place more systematically in adjusting and reforming countries than in nonadjusting and nonreforming ones? Despite efforts — conditions in policy loans targeted at greater efficiency and equity of public expenditures — and occasional claims to the contrary, there is no evidence of systematic improvement in the efficiency or equity of health and education expenditures by the adjusting countries.

The attempts to effect reallocations in intrasectoral budget allocations by conditioned policy lending have had extremely modest success. A recent study identified 9 policy loans in SSA with provisions calling for reallocations from higher to primary education. As of the end of 1991, 4 were rated unsuccessful, 2 were judged ambiguous, and 2 were too recent to call.³³ That's not a record that suggests much adjustment lending impact.

Many questions are left unanswered in this review of factors that might explain how social indicators in Latin America and Africa evolved relatively favorably in the 1980s despite the negative economic growth, increased absolute poverty, worsened income distribution in many countries, declining personal consumption, and fiscal pressures. Some of the possible explanations are unconvincing as major explanations of the paradox: that the data are wrong or misleading, or that public spending on health and education became more efficient and more poverty oriented. Targeted anti-poverty (social safety net) programs were of some significance in Latin America but probably not in SSA.

Three factors seem most significant: the spread of cheap, health-enhancing technology; the growth of external assistance and private expenditure in health and education; and the residual and cumulative effects of past investments and improvements. But much remains unclear and unexplained. As more data become available and more research and analysis is focused on this question, better explanations will emerge.

³³ Gail Stevenson, "Adjustment Lending and the Education Sector: The Bank's Experience," PHREE Background Series, World Bank, November 1991, p. 38.

CHAPTER TEN

CONCLUSIONS

According to many voices in the middle and late 1980s, the poor of Latin America and Africa were traversing a period of crisis unlike any other. The decade was said to be marked by a deepening of poverty on an unparalleled scale. Under the impact of world recession and heavy debt burdens, conditions of life were deteriorating. And things were worse where governments undertook market-oriented economic reforms because these structural adjustment programs — usually adopted under pressure from the IMF and the World Bank — were especially hard on the poor.

This was the picture presented to the world by many writers as early as 1984; a gloomy epitaph of the 1980s was written even while the decade was still young. The gloom thickened in ensuing years. In 1988, UNICEF deplored "rising poverty and malnutrition . . ." and the "widespread and marked deterioration in the human condition . . . in the "vast majority of countries in Africa and Latin America."¹

This general perception became the conventional wisdom of the late 1980s, and is still widely held. The idea that structural adjustment policies hit the poor hardest penetrated even deeper. In the popular press it became and remains a commonplace. A *Newsweek* article on political and economic reform makes a typical assertion: "Economic reform often entails the sort of austerity programs required by the World Bank and International Monetary Fund before they will grant loans. *The burden of these programs falls most heavily on the poor.*"² (Our emphasis.)

Perhaps more significant, it has become an article of faith in NGO circles, and a major theme in attacks by environmentalists and others on the World Bank and the IMF. A spokeswoman for the Environmental Defense Fund recently urged the U.S. Congress to cut back or cease funding IDA (the World Bank's soft loan window) on the grounds that:

[A] large percentage of IDA funds go for structural adjustment programs (30 percent of gross disbursements in 1991) which have a devastating impact on the poor and disadvantaged in African and other low income countries as a result of required cuts in domestic programs which provide health, nutrition, education and social and technical services"³

Yet the review of the empirical evidence presented here and in other recent assessments gives very little support to these generalizations. The best available data do not show general declines in indicators of living conditions, nor that the poor in adjusting countries fared worse than the poor in

¹ Jolly, "A UNICEF Perspective . . .," 1988.

² *Newsweek*, December 31, 1991, p. 41.

³ Statement of Lori Udall on behalf of Environmental Defense Fund, "Concerning the Environmental and Social Impacts of the International Development Association," Subcommittee on International Development, Finance, Trade and Monetary Policy, Committee on Banking, Finance and Urban Affairs, United States House of Representatives, May 5, 1993.

nonadjusting countries, nor that within countries the burdens of adjustment fell disproportionately on the poor.⁴

Table 51 summarizes pertinent data on nonincome indicators. They show that assertions about a general deterioration in the conditions of life of the poor, as revealed by social indicators, are without empirical foundation. On only two indicators did a majority of countries show deterioration over the decade in Africa — education and health shares — and then by only one of the two classification schemes shown. By all other measures, many more countries had improvements or stability in the indicators than had declines. In Latin America, none of the indicators shown evidenced general declines.

Similarly, the assertion that structural adjustment programs have hurt the Latin American and African poor finds almost no support in the comparative data surveyed here. Individual country studies may of course reveal such evidence. The information base used in our analysis has its limits. But as Table 51 shows, the indicators reveal little difference between adjusting and nonadjusting countries on changes in the prevalence of underweight children and child mortality in either region. In Latin America, primary net enrollments and education shares fared better for nonadjusters. In Africa, primary net enrollments were also better for the nonadjusters, but only by one of the classification schemes.

Many who find structural adjustment (or market-oriented policies generally) wrong-headed and undesirable will find this conclusion a vindication of their opposition. They will say: "What? no differences in social indicators between countries that adopt tough reforms and those that don't? What a shocking waste of effort and money!"

But this is to put the problem incorrectly. Proponents of adjustment policies, including stabilization, don't claim that such policies necessarily help the poor in the short run. They make two claims. First, alternatives to stabilization-adjustment lead to accelerated inflation and macroeconomic instability that, some evidence shows, hurts the poor more than the rich (Peru between 1985 and 1990 and Côte d'Ivoire in the mid-1980s are frequently cited examples). Second, stabilizing an economy in imbalance and putting in place a better set of incentives and institutions more congenial to economic growth will put the economy on a higher quality and faster growth track. This is the surest and most sustainable way to alleviate poverty. By the early 1990s there was some evidence that adjusting countries were enjoying higher growth rates than nonadjusters, and this should show up later in better social indicators.⁵

⁴ In a paper presented to the Plenary Session of the Inter-American Dialogue, April 8-10, 1994 ("Coping with Austerity, Poverty and Inequality in Latin America"), Nora Lustig of the Brookings Institution states: "In about half the countries that had a more concentrated income distribution in 1989, the poor (the bottom 20 percent) had to bear the brunt of the crisis. . . . The sense that the adjustment costs have been unfairly distributed is confirmed by these findings." But the footnote she gives does not confirm this conclusion. She notes there that in 4 of 9 countries (Bolivia, Guatemala, Panama, and Peru), the bottom 20 percent were hurt disproportionately — that is, their share fell the most. But this was *not true of the 5 other countries*. In these countries (Argentina, Brazil, Mexico, Honduras, and Guatemala) the middle- or upper-middle-income groups were hurt the most. Moreover, the claimed results have little to do with adjustment impacts over the decade. The data points for all 4 of the countries where the lowest income groups supposedly suffered the most are close together and all begin in the middle 1980s; they say little about decade-long trends.

⁵ Cf. World Bank, *Adjustment in Africa: Reforms, Results and the Road Ahead*, 1994, Chapter 5.

TABLE 51

NUMBER OF COUNTRIES WITH AND WITHOUT DETERIORATING INDICATORS

KEY:

+ = NO DETERIORATION

- = DETERIORATION

	LAC ¹		SSA			
	Williamson /1		USAID		World Bank	
	+	-	+	-	+	-
Prevalence						
Underweight Children						
Adjusting	6	0	2	2	2	2
Nonadjusting	5	0	2	1	2	2
Child Mortality						
Adjusting	10	0	23	0	16	0
Nonadjusting	11	0	9	0	11	0
Net Primary Enrollments						
Adjusting	4	3	17	2	7	1
Nonadjusting	6	1	9	0	3	2
Education Share						
Adjusting	3	4	8	7	8	5
Nonadjusting	6	1	1	4	3	2
Health Share						
Adjusting	6	1	6	6	7	5
Nonadjusting	5	1	2	4	1	3

1/ WHILE WORLD BANK NUMBERS DIFFER FOR THESE INDICATORS, THE OUTCOMES ARE THE SAME.

SOURCE: TABLES 46, 47, AND 48.

In any event, we *should* be surprised that few differences in social indicators are visible, for this indicates that the adoption of market-oriented economic policies in the 1980s did not have the dire consequences so loudly anticipated by so many observers. In other words, the appropriate proposition for testing is that the poor were hurt by adjustment policies. What is noteworthy and surprising is the fact that this proposition, which incorporates strongly held received doctrine, is not supported by cross-country comparisons of poverty indicators.

What is equally noteworthy is the unexpected result that in Africa and Latin America overall, regardless of policy regime changes, most indicators of social conditions improved, or at least did not deteriorate in the 1980s. The caveats that surround this conclusion have been underscored repeatedly in this paper. The indicators are national averages, which means they yield little *direct* evidence on improvements in the status of the poor. The improved social indicators should not be a source of complacency: headcount poverty probably increased in Latin America and Sub-Saharan Africa, and other income- and expenditure-based indicators generally worsened. Also, real public spending per person on health and education decreased in many countries of the two regions. These data show also that by many measures progress in the fight against poverty was slower in the 1980s than in the previous 10 or 15 years.⁶ And progress is not evident in all indicators.⁷

But what is most striking and most surprising is the improvement of social indicators that reflect the quality of life of the poor (nutrition, mortality, primary school attendance) during a decade of slow or negative economic growth and heavy debt service burdens. Compared with the 1970s, lower-income Latin Americans in the 1980s probably consumed more calories, suffered less malnutrition, lived longer, were more fully protected against infectious diseases by greater access to vaccinations and clean water, and saw more of their infants and young surviving to adulthood. And in most countries of the region, access to primary education increased despite the fall in public spending.

Much the same can be said about Africa. Calorie consumption and the prevalence of underweight children did not evolve so favorably as in Latin America, but the nutritional situation improved in more countries than it worsened over the decade. Child mortality rates continued to fall in the majority of countries, life expectancy continued to increase, immunization spread even more rapidly than in LAC and primary school enrollment ratios gained in most countries.

The basic paradox in the data — social deterioration as measured by income or expenditure measures, social improvement as shown in outcomes or welfare indicators — requires better explanation than we could give here. Chapter Nine set out some convincing reasons for the continuing amelioration of health status: the inertia factor with respect to the yield from past investments, low cost interventions for infectious disease, and increases in financing by private households, NGOs, and international donors. But many uncertainties exist. More and better targeting of expenditures aimed at the poor may have been a more significant factor than existing information shows. It may be that structural changes induced by policy reforms, such as increases in nontraditional exports, favor income growth and employment among

⁶ Thus while CMRs fell for all but two African countries (Zambia and Uganda) in the 1980s, the rate of decline in 1985-1990 is lower in 23 countries and faster in 19. Reduction in the under-five mortality rate fell from 1.2 percent a year in 1960-1980 to 0.9 percent a year in 1980-1992 (UNICEF, 1994).

⁷ For example, maternal mortality rates in Africa rose between 1983 and 1988, and enrollment of girls in secondary school fell from 20 percent to 16 percent according to UN ACC/SCN 1993.

the poor (because of labor intensity and skill requirements), as in Costa Rica, but that research has not yet uncovered these results in many places.⁸

Perhaps the most intriguing question remains. How can we explain the large gap between widely held perceptions of reality and the messages suggested by the empirical evidence reviewed in this paper? How did these two beliefs — that social conditions among the poor were in free fall during the 1980s, and that market-oriented structural adjustments hurt the poor — take root and then spread so widely despite their altogether unconvincing empirical foundations?

This is not the place to give this question the attention it deserves. The general reasons are fairly clear. In some cases, weak data were interpreted too strongly by those who are concerned with world poverty. One example comes from the UNICEF book, *Adjustment With A Human Face*. The case study on Jamaica, contained in the second volume, argues strongly that child malnutrition was rising sharply in the middle 1980s, a period of structural adjustment. The author accepts as evidence data that later analysts showed to be flawed, and uses a definition of malnutrition more demanding than that used by other analysts. Later analysts found slight declines in child malnutrition between 1975 and 1985, and more careful surveys show substantial declines. The details are given in Box 1.

The second reason is excessive generalization from partial and selective data. Open-minded readers noted this propensity from the beginning. The 1984 UNICEF study by Jolly and Cornia was reviewed in the *Journal of Development Economics* of May 1986. The reviewer, Samuel Preston, pointed out that because the purpose of the UNICEF study was to convince readers that the condition of children was worsening because of recession and adjustment policies, the authors looked hard to find examples that would support that objective. But their study provided little evidence that such social deterioration was taking place. Preston notes:

What is remarkable is that the best data on children's status in most of the countries reviewed — that on infant and child mortality — shows continued declines nearly everywhere. Nutritional status indicators also typically show improvement and so do school enrollment figures, despite downturns in governmental expenditure on health and education in some countries.

The appropriate conclusion from the evidence presented, the reviewer noted, was that it shows "how much can be achieved even in the face of economic adversity — surely good news for social policy. . . ." Instead, the editors demonstrate a "penchant for stressing the negative trends . . . (a distinct minority) [that] receive the lion's share of the editors' attention in the introduction and summary."

As another reviewer summarized it: "A set of studies that seems to lead to the conclusion of little, or at least unproven, systematic impact of recession and economic adjustment on health and nutrition is summarized as finding that adjustment policy usually multiplies negative recessionary impact on the poor and vulnerable."⁹

⁸ Zuvekas, 1992.

⁹ Behrman, 1988, p. 81.

BOX 1

**DATA QUALITY AND INTERPRETATION:
The Case of Malnutrition in Jamaica**

UNICEF's *Adjustment With a Human Face* (in a case study by Derick Boyd) paints a grim picture of rising malnutrition among children in Jamaica. Boyd finds that, in the early 1980s, malnutrition rose nationwide and admissions for malnutrition nearly doubled at the main children's hospital. These findings are used to support the theses that social conditions worsened during structural adjustment and that the poor suffered disproportionately. But, when the evidence is examined more closely, the conclusions become less apparent and the progression of malnutrition ambiguous at best.

For national malnutrition rates, Boyd uses the findings of national home surveys conducted in 1978 and 1985 by the Jamaican Ministry of Health. The quality of these surveys is high and the best available. The problem arises from how Boyd interprets the data:

- **Sensitivity of nutrition data.** The surveys show an increase in malnutrition from 26 percent in 1978 to 27 percent in 1985. Boyd takes that as proof of a clear increase in incidence. However, not only is there doubt that so small a difference (1 percentage point) is significant, but nutrition data are time-sensitive, with quarterly variations higher than 5 percent. Also, the definition of malnutrition Boyd uses is 90 percent of the reference standard weight-for-age. But the Jamaica Living Standard Survey defines it as below 80 percent of the norm. They find a slight decline between 1978 and 1985 — from 15 to 14.6 percent. (World Bank, "Jamaica: A Strategy for Growth and Poverty Reduction), January 1994, p. 81.)
- **Choice of age cohort.** Boyd presents data on children 0-48 months. The data show an increase in malnutrition (weight-for-age below 90 percent of the norm) from 38 percent to 41 percent. But, for children 0-35 months, the trend reverses: malnutrition declines from 40 percent to 37 percent. And for children 0-59 months, the preferred cohort, there is no significant change: the rate rises from 39.0 to 39.4 percent, with some decrease in moderate and severe malnutrition.

Boyd bolsters his case with data from the national children's hospital on admissions for malnutrition and malnutrition-related gastroenteritis between 1978 and 1985. In "The Poor and the Social Sectors during a Period of Macroeconomic Adjustment: Empirical Evidence for Jamaica," Jere Behrman and Anil Deolalikar challenge Boyd's conclusions on the following grounds:

- The hospital also has records on admissions of children with "malnutrition and/or gastroenteritis." Records show that while admissions for malnutrition and malnutrition-related gastroenteritis rose in 1984 and 1985, those for malnutrition and/or gastroenteritis fell.
- Data from a single hospital are likely to be biased with respect to the national average, although the direction of the bias is unknown.

BOX 1 (continued)

- Increased percentages of hospital admissions who are malnourished is a result of both increased absolute numbers of malnourished and a decrease in total admissions:

YEAR	TOTAL ADMISSIONS AT THE CHILDREN'S HOSPITAL	PERCENTAGE OF ADMISSIONS FOR MALNUTRITION	PERCENTAGE OF ADMISSIONS FOR MALNUTRITION/ GASTROENTERITIS
	4709	2.1	2.0
	4512	2.4	2.7
	3369	3.7	4.7

Total admissions for malnutrition rose from 98 to 110 to 124, and for malnutrition and gastroenteritis from 95 to 122 to 160.

Behrman's objections could be contested in turn and they do not disprove Boyd's conclusions, but they call into question the strength of his assertion. From the data available, it is not possible to conclude that child malnutrition worsened at the start of structural adjustment in Jamaica, much less that it worsened as a result of the adjustment process itself.

The trend in the late 1980s is without ambiguity. According to the Jamaica Living Standards Survey, the child malnutrition rate is about 9 percent between 1989 and 1991 (World Bank, 1994).

The third reason for the survival of these perceptions on deepening poverty and negative effects of adjustment on the poor derives from sparse and weak data. Proponents of these views tended to minimize evidence that social indicators were improving on the grounds that the data were unreliable.

The fact that relevant data were so bad and so slow in coming made all this possible. Interested observers had great difficulty in trying to make sense of contrary interpretations of the movement of social indicators after 1980. Different analysts used different data sources (greater or less recourse to case studies, for example), different definitions (gross or net enrollment ratios, for example) and, most important, they used different base and terminal years for their comparisons. It's easy to see why it was so hard to penetrate the fog surrounding this issue.

Recently, everybody has come around to the recognition that there has been great progress in many social indicators. In its 1994 report on the state of the world's children, UNICEF notes that

- Despite an increase of 20 percent in the under-5 population in the developing world, between 1983 and 1992, under-5 deaths fell dramatically: from 4.2 to 2.9 million for diarrhea, 2.5 to 2.1 for measles, 1.1 to 0.6 for tetanus, 0.7 to 0.4 for whooping cough, and 3.3 to 3.1 million for pneumonia. New cases of paralysis from polio have fallen from 1 million in 1980 to 140,000 in 1992;

- Between 1980 and 1990 the percentage of rural people with access to safe water almost doubled in SSA (from 22 to 38 percent), increased from 42 to 52 percent in Latin America, and doubled in Southeast Asia, from 31 to 66 percent; and
- The percentage of diarrheal episodes treated with oral rehydration therapy quadrupled in SSA between 1986 and 1992 (from 13 to 59 percent) and more than doubled in LAC (from 27 to 56 per cent). Comparable increases occurred in most of the rest of the developing world.

The fourth relevant factor is the hesitation of many writers to proclaim good news about the fight on world poverty on two grounds: first because there is so much human misery still out there, and there is no place for complacency or for relaxing the struggle; and second because researchers and activists alike risk being attacked as insensitive if they emphasize the progress in social indicators. Hundreds of millions of people worldwide remain in deep poverty, and many people of good will still believe that the battle against this dehumanizing condition is best fought by keeping a lid on the good news and emphasizing how much still remains to be done.

Examples of this perspective abound. Take the recent (April 1993) World Bank summary statement on its antipoverty strategy, which comments as follows under the heading "Trends in Poverty":¹⁰

Over the past three decades, developing countries have achieved substantial gains in their living standards, as measured by income and social indicators. However, the rate of improvement slowed during the 1980s. . . . Both the absolute number of poor and their relative share in the population are estimated to have increased in Sub-Saharan Africa, in the Middle East and North Africa and in Latin America and the Caribbean. The depth of poverty has also increased in these regions. . . . Social indicators have improved over the past three decades but their rate of improvement generally slowed during the 1980s, particularly in those countries with the lowest per capita income. . . ."

That's all they say about improvement. One could hardly extract from this statement the extraordinary fact that people in the developing world, *including* those in most of Africa, are on average living longer, are better protected against disease, are attending school in greater numbers, and — a little less clearly — are eating about as well or only a little less well than they were a decade ago.

Take another example. In the 1990 World Bank working paper by Kakwani et al., the authors show that social conditions have generally improved, and note that few negative impacts of adjustment programs are observable. But here is the way this paper is summarized in the abstract:

By and large, social indicators in developing countries improved in the 1980s, but progress was slowest in the countries that needed it most. The data show unacceptably high mortality rates, low school enrollment levels, and extensive undernutrition in many parts of the world. Of particular concern are the declining primary enrollment ratios in intensely adjusting countries. This erosion of human capital is inconsistent with the main objectives of adjustment: sustainable long-term growth.

¹⁰ World Bank, "Implementing the World Bank's Strategy to Reduce Poverty: Progress and Challenges," April 1993.

Talk about Hamlet without the Prince of Denmark! Here the Prince is allowed on stage, briefly and grudgingly, in the opening sentence. But the play is then summarized as though he never existed. There is much of the same in the recent writing on structural adjustment and the poor. This tendency to downplay the progress in social conditions, to mention it not at all, or to qualify it and minimize its significance goes a long way toward explaining the persistence of false perceptions about how recent economic history and recent economic policies have affected the poor of the Third World.

BIBLIOGRAPHY

- Addison, Tony, and Demery, Lionel. "The Alleviation of Poverty Under Structural Adjustment." World Bank, November 1987.
- _____. "The Economics of Poverty Alleviation Under Adjustment." Overseas Development Institute, March 1988.
- _____. "The Poverty Effects of Adjustment with Labor Market Imperfections." Economic Development Institute of the World Bank. May 1990.
- _____. "Alleviating Poverty under Structural Adjustment, Is there Room for Maneuver?" *Finance and Development*. (December 1987): 41-43.
- African Development Bank; United Nations Development Programme; The World Bank. *The Social Dimensions of Adjustment in Africa: A Policy Agenda*. Washington D.C.: The World Bank. 1990.
- A.I.D. "A Survey of Conditionality in A.I.D. Economic Support Fund Programs." Bureau for Program and Policy Coordination. AID. February 1988.
- Alderman, Harold. *Downturn and Economic Recovery in Ghana: Impacts on the Poor*. Cornell: Cornell Food and Nutrition Policy Program. Monograph 10. 1991.
- _____. *Nutritional Status in Ghana and its Determinants*. SDA Working Paper no. 3. Washington D.C.: The World Bank. May 1990.
- Alderman, Harold, and Gertler, Paul. *The Substitutability of Public and Private Health Care for the Treatment of Children*. LSMS Working Paper no. 57. Washington D.C.: The World Bank. July 1989.
- Altimir, Oscar, and Sourrouile, Juan. *Measuring Levels of Living in LAC. An Overview of Main Problems*. LSMS Working Paper no. 3. Washington D.C.: The World Bank. 1980.
- Altimir, Oscar. "Poverty, Income Distribution and Child Welfare in Latin America: A Comparison of Pre- and Post-Recession Data." *World Development*, vol. 12, no. 3 (1984): 261-282.
- Akuoko-Frimpong, H. "Rebalancing the Public and Private Sectors in Developing Countries: The Case of Ghana." OECD technical paper no. 14. 1990.
- Anand, S., and Kanbur, R. "International Poverty Projections." World Bank Working Paper no. 617. March 1991.
- Assaad, Ragui, and Commander, Simon. "Labour Markets in an Era of Adjustment, Egypt: The Labour Market Through Boom and Recession." World Bank, Washington, D.C. May 1990.

- Atkinson, Anthony. "Comparing Poverty Rates Internationally: Lessons from Recent Studies in Developed Countries" in *The World Bank Economic Review*, vol. 5, no. 1 (1991): 3-21.
- Balassa, Bela. "The Adjustment Experience of Developing Economies After 1973." World Bank Reprint Series #265. 1983.
- _____. *Policy Responses to External Shocks in Sub-Saharan African Countries*. World Bank Reprint Series: no. 270. Washington D.C.: The World Bank. Reprinted from *Journal of Policy Modeling*, vol. 5, no. 1 (1983): 75-105.
- Barnum, Howard, and Kutzin, Joseph. "Public Hospitals in Developing Countries: Resource Use, Cost, Financing." Population and Human Resources Department. The World Bank. November 1990.
- Beaudry, P., and Sowa, N. K. "Labour Markets in an Era of Adjustment: A Case Study of Ghana." August 1990.
- Behrman, Jere, and Deolaliker, Anil. "The Poor and the Social Sectors During a Period of Macroeconomic Adjustment: Empirical Evidence for Jamaica." *The World Bank Economic Review*, vol. 5, no. 2 (1991): 291-315.
- Behrman, Jere. "Macroeconomic Policies and Rural Poverty: Issues and Research Strategies." Research Paper Series, Department of Economics, Williams College. September 1990.
- _____. "The Debt Crisis, Structural Adjustment, and the Rural Poor." Research Paper no. 146, Department of Economics, Williams College. September 1990.
- _____. "The Impact of Economic Adjustment Programs" in *Health, Nutrition, and Economic Crises: Approaches to Policy in the Third World*. Auburn House, 1988.
- Beneria, Lourdes. "Structural Adjustment, the Labor Market and the Household: The Case for Mexico." Cornell University, presented at the workshop on Labor Market Policies and Structural Adjustment. ILO. December 1989.
- Bennett, Lynn. "Women, Poverty and Productivity in India." World Bank. June 1991.
- Berg, Elliot. "African Adjustment Programs, False Attacks and True Dilemmas." Development Alternatives Inc. March 1991.
- Berry, Albert. "The Effects of Stabilization and Adjustment on Poverty and Income Distributional Aspects of the Latin American Experience." World Development Report background paper. The World Bank. 1990.
- Betz, Joachim, "The Social Effects of Adjustment Policy in LDCs." *Intereconomics* (May/June 1990): p. 125.
- Bhalla, S. "Measurement of Poverty-Issues and Methods." World Bank draft. January 1980.
- Birdsall, Nancy, and James, Estelle. "Efficiency and Equity in Social Spending: How and why governments misbehave." WPS no. 274. The World Bank. May 1990.

- Blundell, Richard; Heady, Christopher; and Medhora, Rohinton. "Labor Markets in an Era of Adjustment: The Case of Côte d'Ivoire." November 1990.
- Boateng, E. Oti; Ewusi, Kodowo; Kanbur, Ravi; and McKay, Andrew. "A Poverty Profile for Ghana, 1987-88." World Bank SDA Working Paper no. 5. June 1990.
- Bos, E.; Vu, M.; and Stephens, P. "Sources of World Bank Estimates of Current Mortality Rates," Staff Working Paper # 851, World Bank, February 1992.
- Bourguignon, Francois; de Melo, Jaime; and Suwa, Akiko. "Distributional Effects of Adjustment Policies: Simulation for Two Archetype Economies." World Bank Working Paper no. 674. May 1991.
- Braun, Joachim von, and Kennedy, Eileen. "Commercialization of Subsistence Agriculture: Income and Nutritional Effects in Developing Countries." International Food Policy Research Institute. April 1986.
- Buhmann, B.; Rainwater, L.; Schmaus, G.; and Smeeding, T. "Equivalence Scales, Well-being, Inequality, and Poverty: Sensitivity Estimates across Ten Countries using the Luxembourg Income Study Database" in *Review of Income and Wealth*, vol. 34, no. 2, (1988).
- Buttari, Juan; McNelis, P.; and Walker, J. "Methodological Approaches to the Evaluation of Economic Reforms in the Context of Adjustment: Issues and Solutions." USAID Center for Development Information and Evaluation, draft paper, December 1992.
- Center for Development Technology, ISTI. "The Socioeconomic Impact of Macroeconomic Adjustment." December 1987.
- Chatterjee, Meera. "Indian Women, Health, and Productivity." World Bank Working Paper no. 442. October 1990.
- Chen, S.; Datt, G.; and Ravallion, M. "Is Poverty Increasing in the Developing World." Policy Research Department. WPS 1146. World Bank. June 1993.
- Collier, Paul. "Women and Structural Adjustment." Paper prepared for the World Bank. February 1989.
- _____. "Gender Aspects of Labour Allocation During Structural Adjustment." University of Oxford, Study of African Economies. May 1990.
- Congressional Research Service, The Library of Congress. "World Bank/IMF Adjustment Loans and the Poor in Developing Countries." Foreign Affairs and National Defense Division. Report no. 91-176F. 1991.
- Conway, Patrick. "How Successful is World Bank Lending for Structural Adjustment?" World Bank Working Paper no. 581. January 1991.
- _____. "An Atheoretical Evaluation of Success in Structural Adjustment." World Bank Working Paper no. 629. March 1991.

- Cornia, Andrea; Stewart, Frances; and Jolly, Richard. *Adjustment With A Human Face*. A study by UNICEF. Oxford: Oxford University Press, 1987.
- Cornia, Giovanni A.; van der Hoeven, Rolph; and Mkandawire, Thandika. "Africa's Recovery in the 1990s." A study by UNICEF. New York: St. Martin's Press, Inc. 1992.
- Cox Edwards, Alejandra, and Edwards, Sebastian. "Labor Market Distortions and Structural Adjustment in Developing Countries." National Bureau of Economic Research. January 1990.
- Davis, Paul. "Evaluating the Distributional Impact of Macroeconomic Adjustment: The ISTI Report." AID PPC/EA. 1988.
- de Janvry, Alain, and Sadoulet, Elisabeth. "Investment Strategies to Combat Rural Poverty: A Proposal for Latin America." Department of Agriculture, University of California. Working Paper no. 459. 1988.
- Delgado, Christopher L. "Structural Adjustment and the Speed of Aggregate Agricultural Supply Response in Sub-Saharan Africa." CLD Price Policy Conference Brief. August 1988.
- DeRosa, Dean A. "Protection and Export Performance in Sub-Saharan Africa." International Monetary Fund research department, JEL classification nos. 421, 422, 431. 1990.
- Diop, F.; Hill, K.; and Serageldin, I. "Economic Crisis, Structural Adjustment and Health in Africa." WPS 766, September 1991.
- Diwan, Tshac, and Verdier, Thierry. "Distributional Aspects of Debt Adjustment." World Bank Working Paper no. 657. April 1991.
- Dorosh, Paul A.; Bernier, René E.; and Sarris, Alexander H. *Macroeconomic Adjustment and the Poor: The Case of Madagascar*. Cornell: Cornell University Food and Nutrition Policy Program. Monograph 9. December 1990.
- Dreze, J., and Sen, A., eds. *The Political Economy of Hunger*, Volume III. Oxford University Press, 1991.
- Elliot, James A. M. "Real Wages, Poverty and Economic policy Changes in South America and Mexico in the 1980s: A review of the Evidence." Washington D.C.: U.S. Agency for International Development. June 1993.
- Englebert, Pierre, and Kane, Cheryl. "Empirical Studies on the Quality of Primary and Secondary Education: An Annotated Bibliography." PHREE background paper series no. PHREE/89/19. Education and Employment Division, Population and Human Resources Department. 1989.
- Faini, Riccardo; de Melo, Jaime; Senhadji-Semlali, Abdel; and Stanton, Julie. "Growth-Oriented Adjustment Programs, A Statistical Analysis." World Bank Working Paper no. 426. June 1990.
- Feachem, Richard, and Jamison, Dean, eds. *Disease and Mortality in Sub-Saharan Africa*. A World Bank Publication. Oxford: Oxford University Press. 1991.

- Fields, Gary. "Poverty and Inequality in Latin America: Some New Evidence." Cornell University, October 1990.
- Food and Agriculture Organization/World Health Organization. "International Conference on Nutrition. World Declaration and Plan of Action." Rome, 1992.
- Fox, M. Louise; Amadeo, Edward; and Camargo, Jose Marcio. "Brazilian Labor Markets in an Era of Adjustment." The World Bank. 1991.
- Fox, M. Louise, and Morley, Samuel. "Brazil: Who Paid the Bill?: Adjustment and Poverty 1980-1995." World Bank WPS no. 648. April 1991.
- Gallagher, M., and Ogbu, O. "Public Expenditures, Resource Use and the Social Sectors in Sub-Saharan Africa," World Bank, 1989.
- Ghai, Dharam, and Hewitt de Alcantara, Cynthia. "The Crisis of the 80's in Sub-Saharan Africa, Latin America and the Caribbean: Economic Impact, Social Change, and Political Implications." *Development and Change*, vol. 21 (1990): 403-426.
- Gindling, T. H., and Berry, Albert. "Labor Markets and Adjustment in Costa Rica." Prepared for conference on Labor Markets in an Era of Adjustment. 1990.
- Glewwe, Paul. *Efficient Allocation of Transfers to the Poor, The Problem of Unobserved Household Income*. LSMS Working Paper no. 70. Washington D.C.: The World Bank. June 1990.
- _____. "Improving Data on Poverty in the Third World: The World Bank's LSMS." World Bank Working Paper no. 416. May 1990.
- Glewwe, Paul, and van der Gaag, Jacques. *Confronting Poverty in Developing Countries*. LSMS Working Paper no. 48. Washington D.C.: The World Bank. 1988.
- Glewwe, Paul, and de Tray, Dennis. "The Poor in Latin America During Adjustment, A Case Study of Peru." World Bank, LSMS Working Paper no. 56, July 1989.
- _____. *The Poor During Adjustment. A Case Study of Côte d'Ivoire*. LSMS study Working Paper no. 47. Washington D.C.: The World Bank. April 1988.
- Goldstein, M., and Montiel, P. "Evaluating Fund Stabilization Programs with Multicountry Data," *IMF Staff Papers*, Vol. 33, no. 2, June 1986.
- Gonzalez de la Rocha, Mercedes. "Economic Crisis, Domestic Reorganization, and Women's Work in Guadalajara, Mexico." In *Bulletin of Latin American Research*, vol. 7, no. 2 (1988): 207-223.
- Gordon, Derek. "Identifying the Poor: Developing a Poverty Line for Jamaica." Planning Institute of Jamaica. Kingston, Jamaica. November 1989.
- Graham, Carol. "The APRA Government and the Urban Poor: The PIAT Programme in Lima's Pueblos Jovenes." *The Journal of Latin American Studies*, vol. 23: 91-130.

- _____. "The Politics of Implementing Pro-Poor Measures During Adjustment: Bolivia's Emergency Social Fund." Submitted to *World Development*, June 1991.
- _____. "From Emergency Employment to Social Investment: Changing Approaches to Poverty Alleviation in Chile." Brookings Occasional Paper, forthcoming.
- Green, Reginald. "The Struggle Against Absolute Poverty in Mozambique." SDA project. Republic of Mozambique. 1991.
- Griffin, Charles C. *User Charges and Health Care in Principle and Practice*. EDI Seminar Paper no. 37. Washington D.C.: The World Bank. December 1988.
- Grootaert, C. "The Evolution of Welfare and Poverty Under Structural Change and Economic Recession in Côte d'Ivoire, 1985-1988." WPS 1078. Africa Technical Department, World Bank, January 1993.
- Grosh, Margaret. "Social Spending in Latin America, The Story of the 1980s." World Bank Discussion Paper no. 106, 1990.
- _____. "The Jamaican Food Stamps Program. A Case Study." Human resource Division, World Bank. 1990.
- Grosh, Margaret; Fox, Kristin; and Jackson, Maria. "An Observation on the Bias in Clinic-based Estimates of Malnutrition Rates." WPS no. 694. The World Bank, April 1991.
- Guillaumont, Patrick, and Guillaumont, Sylviane. "The Social Consequences of Adjustment in Africa as a Function of Exchange Rate Policy." Study for the Economic Development Institute of the World Bank. October 1989.
- Gulhati, Ravi, and Nallari, Raj. *Successful Stabilization and Recovery in Mauritius*. EDI Development Policy Case Series Analytical Case Studies, no. 5. Washington D.C.: The World Bank. September 1990.
- Guhati, Ravi. *The Political Economy of Reform in Sub-Saharan Africa*. EDI policy seminar report no. 8. Washington D.C.: The World Bank. 1988.
- Haddad, Lawrence, and Kanbur, Ravi. "Is there an Intra-Household Kuznets Curve." World Bank Working Paper no. 466. August 1990.
- Hagenaars, Aldi. "Poverty and Welfare in Eight European Countries." Paper prepared for the twenty-third international Atlantic economic conference. Munich, Germany. April 1987.
- Heller, Peter; Bovenberg, Lans A.; Catsambas, Thanos; Chu, Ke-Young; and Shome, Partasarathi. *The Implications of Fund-Supported Adjustment Programs for Poverty Experiences in Selected Countries*. IMF Occasional Paper no. 58. Washington D.C.: IMF. May 1988.
- Heller, Peter, and Diamond, Jack. *International comparisons of Government Expenditure Revisited: The Developing Countries, 1975-86*. IMF occasional paper 69. Washington D.C.: International Monetary Fund. 1990.

- Helwege, Ann. "Latin American Agricultural Performance in the Debt Crisis." Latin American Studies Association Meetings. March 1988.
- Hicks, Norman. "Expenditure Reductions in Developing Countries Revisited." Draft, World Bank, 1988.
- Hill, Kenneth, and Pebley, Anne. "Child Mortality in the Developing World." In *Population and Development Review*, vol. 15, no. 4 (1989): 657-685.
- Holt, Sharon. "The Role of Institutions in Poverty Reduction, a focus on the productive sectors." WPS no. 627. World Bank, March 1991.
- Hood, Ron; Altomare, Mary; Haddad, Lawrence; and Starr-McCluer, Martha. "Gender and Adjustment." report prepared for the Agency for International Development, 1990.
- Horton, Susan; Kanbur, Ravi; and Mazumdar, Dipak. "Labor Markets in an Era of Adjustment, An Overview." World Bank Working Paper no. 694. May 1990.
- Horton, Susan. "Labour Markets in an Era of Adjustment: Bolivia." Department of Economics, University of Toronto. March 1990.
- IFAD. "Poverty Alleviation: An IFAD Perspective." Report prepared for the World Bank's World Development Report 1990. Policy Review Division. October 1989.
- International Monetary Fund. *Government Finance Statistics Yearbook*, vol. 1-14, 1977-1990. Washington D.C.: International Monetary Fund, 1990.
- _____. *International Financial Statistics*, vol. 27, 1990. Washington D.C.: International Monetary Fund.
- _____. *World Economic Outlook*. A Survey by the Staff of the IMF. Washington D.C.: International Monetary Fund. 1990.
- Jabara, Cathy. *Structural Adjustment and Stabilization in Niger: Macroeconomic Consequences and Social Adjustment*. Cornell: Cornell Food and Nutrition Policy Program. Monograph 11. 1991.
- _____. *Economic reform and Poverty in The Gambia. A Survey of Pre- and Post-ERP Experience*. Cornell: Cornell Food and Nutrition Policy Program. Monograph 8. 1990.
- Jarouse, Jean-Pierre, and Mingat, Alain. "Pour une politique de la qualité de l'école primaire en Afrique. Evaluation des acquis des élèves en CP et en CM au Togo," *Revue d'économie du développement*. March 1993.
- Jaeger, William. "The Impact of Policy in African Agriculture, an Empirical Investigation." World Bank Working Paper no. 640. 1991.
- Jamal, Vali, and Weeks, John. "The Vanishing Rural-urban Gap in Sub-saharan Africa." *International Labour Review*. ILO (1988): 271-292.
- James, E. "Why is There Proportionately More Enrollment in Private Schools in Some Countries?" WPS 1069, World Bank, January 1993.

- Jolly, Richard. "A UNICEF Perspective on the Effects of Economic Crisis and What Can Be Done." in *Health, Nutrition, and Economic Crises: Approaches to Policy in the Third World*. Auburn House, 1988.
- Jolly, Richard, and Cornia, Giovanni, eds. *The Impact of World Recession on Children: A Study Prepared for UNICEF*. Oxford University Press, 1984.
- Kakwani, Nanak; Makonnen, Elene; and van der Gaag, Jacques. "Structural Adjustment and Living Conditions in Developing Countries." World Bank Working Paper no. 467. 1990.
- Kakwani, Nanak, and Subbarao, Kalinidhi. "Rural Poverty in India, 1973-86." World Bank WPS no. 526. October 1990.
- Kakwani, Nanak. "Growth Rates and Aggregate Welfare: an International Comparison." World Bank Working Paper no. 647. April 1991.
- Kanbur, Ravi. "Structural Adjustment and Poverty: A Methodology for Analysis." *World Development*, vol. 15, December 1987.
- _____. *Poverty and the Social Dimensions of Structural Adjustment in Côte d'Ivoire*. SDA Policy Analysis. Washington D.C.: The World Bank. March 1990.
- _____. "Children and Intra-household Inequality: A Theoretical Approach." World Bank WPS no. 685. May 1991.
- _____. "Poverty and Development, the Human Development Report and the World Development Report, 1990." World Bank, WPS 618, March 1991.
- Kanbur, Ravi, and Ferroni, Marco. "Poverty Conscious Restructuring of Public Expenditures." World Bank, April 1990.
- Kennedy, Eileen, and Alderman, Harold. *Comparative Analysis of Nutritional Effectiveness of Food Subsidies and Other Food-Related Interventions*. Joint WHO-UNICEF nutrition support programme. Washington D.C.: International Food Policy Research Institute. 1987.
- Kennedy, Eileen, and Pinstrup-Andersen, Per. *Nutrition-Related Policies and Programs: Past Performances and Research Needs*. Washington D.C.: International Food Policy Research Institute. 1983.
- Khan, Azizu. "World Bank Operations and the Alleviation of Extreme Poverty." World Bank, November 1986.
- Killick, Tony. "The Developmental Effectiveness of Aid to Africa." World Bank Working Paper no. 646. 1991.
- King, Elizabeth M. *Does Education Pay in The Labor Market? The Labor Force Participation, Occupation, and Earnings of Peruvian Women*. LSMS Working Paper no. 67. Washington D.C.: World Bank. January 1990.

- King, Elizabeth M., and Bellow, Rosemary. "Gains in the Education of Peruvian Women 1940-1980." World Bank Working Paper no. 472. August 1990.
- Koester, Ulrich; Schafer, Hartwig; and Valdés, Alberto. *Demand-Side Constraints and Structural Adjustment in Sub-Saharan African Countries*. Washington D.C.: International Food Policy Research Institute. 1990.
- Konan, Mildred. "Development Assistance to Reduce Poverty: Defining and Measuring Progress." A publication of the Social Sector Policy Analysis Project, Academy for Educational Development. 1991.
- Krueger, Anne; Schiff, Maurice; and Valdes, Alberto. "Agricultural Incentives in Developing Countries: Measuring the Effect of Sectoral and Economywide Policies." In *World Bank Economic Review*, vol. 2, no. 3 (1988): pp. 171-255.
- Kuhn, Karen Hansen. *Structural Adjustment in Central America: the Case of Costa Rica*. 1993.
- _____. "Sapping the Economy: Structural Adjustment Policies in Costa Rica." *The Ecologist*, September-October 1993.
- Lau, Lawrence; Jamison, Dean; and Louat, Frederic. "Education and Poverty in Developing Countries: an Aggregate Production Function Approach." World Bank Working Paper no. 612. March 1991.
- Lele, Uma. "Structural Adjustment, Agricultural Development and the Poor: Lessons from the Malawian Experience." MADIA discussion paper 9, World Bank. December 1989.
- Levine, Ross, and Renelt, David. "Cross-Country Studies of Growth and Policy, Methodological, Conceptual and Statistical Problems." World Bank Working Paper no. 608. March 1991.
- Levy, Santiago. "Poverty Alleviation in Mexico." World Bank WPS no. 679. May 1991.
- Lipton, Michael, and van der Gaag, Jacques. "Including the Poor." For the World Bank/IFPRI. Baltimore: Johns Hopkins University Press. 1993.
- Lipton, Michael, and Ravallion, Martin. "Poverty and Policy." World Bank WPS no. 1130. April 1993.
- Lipton, Michael. *The Poor and the Poorest, Some Interim Findings*. World Bank Discussion Papers no. 25. Washington D.C.: The World Bank. 1988.
- _____. *Land Assets and Rural Poverty*. World Bank staff Working Paper no. 744. Washington D.C.: The World Bank. August 1985.
- _____. "Poverty, Undernutrition and Hunger." World Bank Staff Working Paper # 597, 1983.
- Lopez, Ramon; Ali, Ridwan; and Larsen, Bjorn. "How trade and Economic Policies Affect Agriculture, A framework for Analysis Applied to Tanzania and Malawi." World Bank Working Paper no. 719. 1991.

- Maasland, Anne. "Methods for Measuring the Effect of Adjustment Policies on Income Distribution." World Bank Working Paper no. 474. August 1990.
- Marquez, Gustavo. "Informal Sector Policies in Latin America, An Economist's View." Instituto de Estudios Superiores de Administracion. February 1991.
- Mazumdar, Dipak. *Microeconomic Issues of Labor Markets in Developing Countries, Analysis and Policy Implications*. EDI Seminar Paper 40. Washington D.C.: The World Bank. August 1989.
- _____. "Malaysian Labor Markets Under Structural Adjustment." World Bank WPS no. 573. January 1991.
- McGuire, Judith. "Malnutrition: Opportunities and Challenges for A.I.D." A.I.D. November 1988.
- Michalet, Charles-Albert. "Le Rééquilibrage Entre le Secteur Public et le Secteur Privé: Le Cas du Mexique." Documents Techniques no. 4. OCDE. 1989.
- Mills, Cadman A. *Ajustement Structurel en Afrique Subsaharienne*. Rapport sur un Séminaire de Politique Générale de l'IDE no. 18. EDI policy seminar report. Washington D.C.: The World Bank. November 1989.
- Milne, William. "Labour Markets in an Era of Adjustment." Revised draft. Institute for Policy Analysis, University of Toronto. October 1990.
- Moser, Caroline. "Adjustment from Below: Low-Income Women, Time and the Triple Role in Guayaquil, Ecuador." To be published in *Women, Recession, and Adjustment in the Third World*. Edited by Afshon and Dennis. MacMillan Press. 1991.
- Mosley, Paul; Harrigan, Jane; and Teye, John. *Aid and Power; The World Bank and Policy-based Lending*, Vols. 1 and 2. London, 1991.
- Musgrove, Philip. "Fighting Malnutrition, an Evaluation of Brazilian Food and Nutrition Programs." World Bank Staff Working Paper, no. 60. August 1989.
- Mwabu, Germano. "Financing Health Services in Africa." World Bank, WPS 457, June 1990.
- Nelson, Joan. "The Politics of Pro-Poor Adjustment Policies." ODC for the World Bank Symposium on Poverty and Adjustment. April 1988.
- Newman, John; Jorgensen, Steen; and Pradhan, Menno. *How did Workers Benefit from Bolivia's Emergency Social Fund*. LSMS Working Paper no. 77. Washington D.C.: The World Bank. May 1991.
- Noss, Andrew. "Education and Adjustment, A Review of the Literature." World Bank Working Paper no. 701. June 1991.
- Obidegwu, Chukwuma. "Adjustment Programs and Economic Change in Sub-Saharan Africa." The World Bank SPR Discussion Paper no. 20. March 1990.

OECD. Development Centre. "Adjustment and Equity in Developing Countries" (Ecuador, Malaysia, Morocco, Chile, Indonesia, Côte d'Ivoire, and Ghana). 1991-1992.

_____. Club du Sahel-OCDE. "Contribution à un Bilan Economique et Social des Pays du Sahel 1980-1990." Document no. 3 & 4. November 1990.

_____. IADB. *The Impact of Development Projects on Poverty*. Development Centre Seminars. Paris: OECD. 1989.

Pan American Health Organization (PAHO). *Health Conditions in the Americas, Volumes I AND II*. Washington, D.C.: Pan American Health Organization. 1990.

_____. *Los Servicios de Salud en las Americas. Analisis de Indicadores Basicos*. Cuaderno tecnico no. 14. Washington D.C.: Pan American Health Organization. 1988.

Pfeffermann, Guy, and Madarassy, Andrea. *Trends in Private Investment in Thirty Developing Countries*. International Finance Corporation discussion paper no. 6. Washington D.C.: The World Bank. 1989.

Pinstrup-Andersen, Per. "Food Subsidies in Developing Countries." *Food Policy Statement*. no. 9 (October 1988). International Food Policy Research Institute.

_____, ed. *Macroeconomic Policy Reforms, Poverty, and Nutrition: Analytical Methodologies*. Cornell: Cornell Food and Nutrition Policy Program. Monograph 3. 1990.

Preston, Samuel. "Review of Richard Jolly and Giovanni Andrea Cornia, eds. The Impact of World Recession on Children." *Journal of Development Economics* 21 (1986): 373-376.

Psacharopoulos, George. "Poverty and Income Distribution in LAC Today" — Initiating Memorandum. World Bank, International Finance Corporation. May 31, 1991.

_____, ed. "Recovering Growth With Equity, World Bank Poverty Alleviation Activities in Latin America." World Bank internal discussion paper. Report no. IDP-0033. 1989.

Psacharopoulos, George; Morley, Samuel; Fiszbein, Ariel; Lee, Haeduck; and Wood, Bill. "Poverty and Income Distribution in Latin America: The Story of the 1980s." The World Bank. June 1993.

Rashad, Hoda. "A Reappraisal of How Oral Rehydration Therapy Affected Mortality in Egypt." WPS 1052. World Bank, November 1992.

Ravallion, Martin, and Huppi, Monika. "Measuring Changes in Poverty: A Methodological Case Study of Indonesia during an Adjustment Period," in *The World Bank Economic Review*, vol. 5, no. 1 (1991): 57-82.

Ravallion, Martin. "The Challenging Arithmetic of Poverty in Bangladesh." World Bank WPS no. 586 (background paper for 1990 WDR). February 1991.

Ravallion, Martin; Datt, Gaurav; van de Walle, Dominique; and Chan, Elaine. "Quantifying the Magnitude and Severity of Absolute Poverty in the Developing World in the Mid-1980s." World Bank Working Paper no. 587. 1991.

- Ribe, Helena, and Carvalho, Soniya. "World Bank Treatment of the Social Impact of Adjustment Programs." World Bank Working Paper no. 521. October 1990.
- Ribe, H.; Carvalho, S.; Liebenthal, R.; Nicholas, P.; and Zuckerman, E. *How Adjustment Programs Can Help the Poor, the World Bank Experience.* World Bank Discussion Papers no. 71. Washington D.C.: The World Bank. January 1990.
- Riveros, Luis, and Paredos, Ricardo. "Measuring the Impact of Minimum Wage Policies on the Economy." World Bank Working Paper no. 101. October 1988.
- Riveros, Luis, and Sanchez, Carlos. "Labor Markets In An Era of Adjustment: Argentina." World Bank. April 1990.
- Riveros, Luis, and Bouton, Lawrence. "Efficiency Wage Theory, Labor Markets, and Adjustment." World Bank Working Paper no. 731. 1991.
- Sahn, David E. *Fiscal Exchange Rate Reforms in Africa. Considering the Impact Upon the Poor.* Cornell: Cornell Food and Nutrition Policy Program. Monograph 4. 1990.
- _____. "Has Policy Reform Hurt the Poor in Africa?" Cornell University Food and Nutrition Policy Program, Washington. D.C. 1991.
- _____. "Progress Report on the Cooperative Agreement to Assess the Impact of Policy Reform on Low Income Groups." Cornell University Food and Nutrition Policy Program. December 1990.
- _____. *Malnutrition in Côte d'Ivoire, Prevalence and Determinants.* SDA Working Paper no. 4. Washington D.C.: The World Bank. 1990.
- _____. "Public Expenditures in Sub-Saharan Africa during a period of Economic reforms." World Development 20 (May 1992): 673-93
- Sahn, David E., and Arulpragasam, Jehan. "The Stagnation of Smallholder Agriculture in Malawi: a Decade of Structural Adjustment." Food Policy. 16: 219-34. 1991.
- Sahn, David E.; Arulpragasam, Jehan; and Merid, Lemma. *Policy reform and Poverty in Malawi, A Survey of a Decade of Experience.* Cornell: Cornell Food and Nutrition Policy Program. Monograph 7. 1990.
- Sahn, David E., and Bernier, René. "Evidence from Africa on Intrasectorial Allocation of Social Sector Expenditures." Cornell: Cornell Food and Nutrition Policy Program. Preliminary Draft. April 1993.
- Sarris, Alexander H. *A Macro-Micro Framework for Analysis of the Impact of Structural Adjustment on the Poor in Sub-Saharan Africa.* Cornell: Cornell Food and Nutrition Policy Program. Monograph 5. 1990.
- Schwartz, Antione, and Stevenson, Gail. "Public Expenditure Reviews for Education, The Bank's Experience." World Bank Working Paper no. 510. October 1990.

- Serageldin, I.; Elmendorf, E.; and El-Tigani, E. "Structural Adjustment and Health in Africa in the 1980s." World Bank November 10, 1992.
- Sheahan, J. "Reducing Poverty in Latin America: Markets, Democracy and Social Change." Williams College. The Center for Developmental Economics, Research Memorandum Series. March 1990.
- Smith, Gordon, and Cuddington, John T., eds. *International Debt and the Developing Countries*. A World Bank Symposium. Washington D.C.: The World Bank. 1985.
- Srinivasan, T. N. "Structural Adjustment, Stabilization and the Poor." March 1988.
- Stevenson, Gail. "Adjustment Lending and the Education Sector: the Bank's Experience." PHREE Background Paper Series no. PHREE/91/42R. The World Bank. 1991.
- Suzuki, Yuriko, and Bernard, Andrew. *Effects of Panterritorial Pricing Policy for Maize in Tanzania*. Washington D.C.: International Food Policy Research Institute. 1987.
- Terrell, Katherine. "A Methodology for Analyzing the Effects of Stabilization and Structural Adjustment Policies on Labor Markets of Developing Countries." Graduate School of Public and International Affairs, University of Pittsburgh. June 1987
- Tilak, Jandhyala. "Education and its Relation to Economic Growth, Poverty and Income Distribution." World Bank Discussion Paper no. 46.
- Turnham, David, and Eröcal, Denizhan. "Unemployment in Developing Countries, New Light on an Old Problem." OECD technical paper no. 22. 1990.
- United Nations. *Mortality of Children Under Age 5. World Estimates and Projections, 1950-2025*. Population Studies no. 105. New York: United Nations. 1988.
- United Nations-ACC/SCN. *Update on the Nutrition Situation: Recent Trends in Nutrition in 33 Countries*. Geneva. United Nations Administrative Committee on Coordination - Subcommittee on Nutrition. January-February 1989.
- _____. *Second Report on the World Nutrition Situation*, vols. 1 (1992) and 2 (1993). Suffolk: Lavenham Press Ltd.
- United Nations Development Programme. *Human Development Report*, vols. 1990, 1991. New York: Oxford University Press.
- United Nations Development Programme Central evaluation Office. "The Social Dimensions of Adjustment (SDA) Project: An Interim Evaluation," vols. I and II. The UNDP. 1990.
- United Nations Development Programme and the World Bank, *African Development Indicators*, 1992.
- UNESCO. *Annual Yearbook*, various years.
- UNICEF. *The State of the World's Children*. Oxfordshire, U.K.: Oxford University Press. 1994, 1991, 1989, 1983, 1982.

- UNECA. "Statistics and Policies." ECA Preliminary Observations on the World Bank Report "Africa's Adjustment and Growth in the 1980s." From the 15th meeting of the ECA Conference of ministers. April 1989.
- _____. "African Alternative Framework to Structural Adjustment Programs for Socio-Economic Recovery and Transformation." United Nations Economic Commission for Africa. 1989.
- United States Department of Agriculture. *World Agriculture, Trends and Indicators 1970-89*. Washington D.C.: USDA, Economic Research Service, Statistical Bulletin no. 815. September 1990.
- van der Gaag, Jacques; Makorinen, Eiene; and Englebert, Pierre. "Trends in Social Indicators and Social Sector Financing." World Bank Working Paper no. 662. May 1991.
- van de Walle, Dominique. "Poverty and Inequality in Latin America and the Caribbean During the 70s and 80s: An overview of the Evidence." Human Resources Division, Technical Department, Latin America and the Caribbean Region, The World Bank, September 1991.
- Vijverberg, Wim, and van der Gaag, Jacques. *Testing for Labor Market Duality, The Private Wage Sector in Côte d'Ivoire*. LSMS Working Paper 66. Washington D.C.: The World Bank. January 1990.
- Williamson, John. *Latin American Adjustment, How Much Has Happened?* Washington, D.C.: Institute for International Economics. April 1990.
- World Bank and The United Nations Development Programme. *Adjustment and Growth in Africa in the 1980s*. Washington D.C.: IBRD. 1989.
- World Bank. *Adjustment in Africa: Reforms, Results, and the Road Ahead*. A World Bank Policy Research Report. New York: Oxford University Press, 1994.
- _____. *Argentina Social Sectors in Crisis, a World Bank Country Study*. Washington D.C.: The World Bank. 1988.
- _____. "Bolivia Poverty Report." World Bank report no. 8643-BO. October 1990.
- _____. "Brazil, Public Spending on Social Programs; Issues and Options." World Bank report no. 7086-BR. May 1988.
- _____. "Colombia, Social Programs and Poverty Alleviation: An Assessment of Government Initiatives." World Bank report no. 7271-CO. December 1988.
- _____. "Costa Rica, Public Sector Social Spending." Report no. 8519-CR, World Bank Country department II. May, 1990.
- _____. Country Economics Department, *Adjustment Lending Policies for Sustainable Growth (RAL II)*. Policy and Research Series no. 14. Washington D.C.: The World Bank. 1990.
- _____. Country Economics Department, *Adjustment Lending and Mobilization of Private and Public Resources for Growth (RAL III)*. Policy and Research Series no. 22, Washington, D.C.: The World Bank, 1992.

- _____. "Ecuador: A Social Sector Strategy for the 1990's." World Bank document. Report no. 8935-EC. November 1990.
- _____. "Ghana: Progress on Adjustment." Report no. 9475-GH, April 16, 1991.
- _____. "Implementing the World Bank's Strategy to Reduce Poverty: Progress and Challenges." April 1993.
- _____. "Kenya Human Resources: Improving Quality and Access." June 1991.
- _____. "Madagascar: Beyond Stabilization to Sustainable Growth." World Bank. Report no. 9101-MAG. June 1991.
- _____. "Malawi: Human Resources Development Study." April 23, 1990.
- _____. "Malawi: Growth Through Poverty Reduction." World Bank report no. 8140-MAI. March 1990.
- _____. "Malawi Food Security Report." World Bank report no. 8151-MAI. June 1990.
- _____. "Memorandum and Recommendation of the President of the International Development Association to the Executive Directors on a proposed Credit in the Amount Equivalent to US \$20.0 Million to Burkina Faso for a Public Works and Employment Project." World Bank document. Report no. P-5565-BUR. 1991.
- _____. "Memorandum and Recommendation of the President of the International Development Association to the Executive Directors on a proposed Credit in the Amount Equivalent to US \$20 Million to the Republic of Zambia for a Social Recovery Project." World Bank document. Report no. P-5527-ZA. 1991.
- _____. "Morocco: Reaching the Disadvantaged: Social Expenditure Priorities in the 1990s. World Bank report no. 7903-MOR. 1990.
- _____. Operations Evaluation Department. "Structural and Sectoral Adjustment Operations; the Second OED Overview." World Bank. June 1992.
- _____. *Population, Health, and Nutrition: Fiscal 1990 Sector Review*. Population, Health, and Nutrition Division. Population and Human Resources Department. The World Bank Working Papers no 707. 1991.
- _____. *Poverty in Latin America: The Impact of Depression*. Report no. 6369. Washington D.C.: The World Bank. August 6, 1986.
- _____. "Poverty Profile of Togo." 1989.
- _____. "Public Expenditure Report, Côte d'Ivoire." 1990.
- _____. "Public Expenditure Review: Nigeria." 1985.

- _____. "Recent World Bank Poverty Studies: A Summary of Approaches, Coverage, and Findings." Policy Analysis and Review Division, Strategic Planning Department. August 1989.
- _____. "The Reform of Public Sector Management: Lessons from Experience," Policy and Research Series no. 18, 1991.
- _____. *Report on Adjustment Lending (RAL I)*. IBRD, World Bank. 1988.
- _____. *Social Indicators of Development, 1990*. Baltimore: Johns Hopkins University Press, 1991.
- _____. "Social Investment in Guatemala, El Salvador, and Honduras, Workshop on Poverty Alleviation, Basic Social Services and Social Investment Funds within the Consultative Group Framework." World Bank report no. 8299-LAC. June 1990.
- _____. "Social Reforms in Chile Since 1973 (an Experience in Infant Nutrition)." World Bank Symposium on Poverty and Adjustment. April 1988.
- _____. *Sub-Saharan Africa: From Crisis to Sustainable Growth, A Long-Term Perspective Study*. Washington D.C.: The World Bank. 1989.
- _____. "Preliminary Report, Living Conditions Survey, Jamaica." World Bank Statistical Institute of Jamaica. Kingston, Jamaica. October, 1988.
- _____. "The Treatment of Social Impact in Adjustment Programs Supported by the World Bank." Policy and Review Department, July, 1990.
- _____. "Uganda: Public Choices for Private Initiatives." Vol. 2, 1991.
- _____. "Urban Policy and Economic Development, An Agenda for the 1990s." World Bank Policy Paper, 1991.
- _____. "Venezuela Poverty Study: From Generalized Subsidies to Targeted Programs." World Bank report no. 9114-VE. December 1990.
- _____. *World Development Report 1991*. New York: Oxford University Press.
- _____. *World Development Report 1990*. New York: Oxford University Press.
- _____. *World Development Report 1989*. New York: Oxford University Press.
- _____. *World Development Report 1988*. New York: Oxford University Press.
- _____. *World Development Report 1987*. New York: Oxford University Press.
- _____. *World Development Report 1986*. New York: Oxford University Press.
- _____. *World Development Report 1985*. New York: Oxford University Press.
- _____. *World Development Report 1984*. New York: Oxford University Press.

- _____. *World Debt Tables 1989-90, External Debt of Developing Countries*. Vol. 1, Analysis and Summary Tables; vol. 2, Country Tables. Washington D.C.: The World Bank. 1989.
- _____. *World Tables, 1991*. Baltimore: Johns Hopkins University Press. 1991.
- _____. "Zaire Public Expenditure Review." 1991.
- _____. "Zaire Poverty Assessment." 1990.
- _____. "Zimbabwe, A Review of Primary and Secondary Education: From Successful Expansion to Equity of Learning Achievements." September 21, 1990.
- Yang, Hongyu. "Government Expenditure on Social Sectors in Latin America and the Caribbean, Statistical Trends." A View From LATHR no. 13. The world Bank. 1991.
- Zuckerman, Elaine. "Poverty and Adjustment, Issues and Practices." Central Evaluation Department, the World Bank. March 1988.
- _____. *Adjustment Programs and Social Welfare*. World Bank Discussion Papers no. 44. Washington D.C.: The World Bank. 1990.
- Zuvekas, Clarence Jr. "Costa Rica: The Effects of Structural Adjustment Measures on the Poor, 1982-1990." Staff Working Paper, no. 5, Bureau for Latin America and the Caribbean. Washington, D.C.: Agency for International Development. June 1992.
- _____. "Economic Crisis and Recovery in El Salvador, 1978-1992." Staff Working Paper no. 8. Bureau for Latin America and the Caribbean. Washington, D.C.: Agency for International Development. June 1993.

ANNEX A
GLOSSARY OF KEY TERMS

GLOSSARY OF KEY TERMS

Measures of Poverty¹

There are two general standards of measurement:

- Absolute measures, which are income or consumption-based, are calculated based on an objective poverty line. The share of the population that is poor by this measure will vary over time. The measures, which include income in kind, generally fix a poverty line at some factor "Z" times the cost of a basket of goods that contains only food. In principle, if the same definition were used, cross-country comparisons of the absolute poor could be meaningful. In the developing country poverty literature, "Z" is frequently fixed at two (when "Z" is 1.2-1.5, the basket is usually defined to include clothing and shelter); for U.S. poverty, "Z" is three.

A subcategory — historically, the most commonly used approach — is a nutrition-based measure, in which "Z" is the cost of the minimum nutritionally balanced diet.

- Relative poverty is based on national income distribution. Usually the bottom 30 percent of income distribution is judged "moderately poor," the bottom 10 percent are the "absolute poor." Cross-country comparison of the relatively poor is impossible, because of different standards of living.

A subcategory focuses on minimum rights — poverty is defined as the inability to enjoy customary living conditions and amenities. Minimum rights can focus on either households or individuals. When it focuses on individuals, it can be a useful approach to studying issues such as the feminization of poverty.

Measures of Welfare

Analysts usually measure welfare using one of these indicators:

- Income is used to proxy living standards (access to health, education, status, as well as food and shelter). Income measures resources available, and it focuses on the budget constraint rather than consumption choices. Drawbacks are that income is likely to fluctuate more than consumption. In low income periods, households can spend savings to smooth consumption. Income can proxy consumption if the analysis focuses on permanent income rather than current.
- Consumption is conceptually preferred as a welfare measure because it includes all goods and services purchased or received, e.g., gifts or in-kind barter.

¹ For detailed analysis and further references to the abundant analytical literature on definition and measurement of poverty, see M. Ravallion, "Poverty Comparisons; A Guide to Concepts and Measures", Living Standards Measurement Study Working Paper No. 88, World Bank, 1992, and the bibliography given there.

- Basic Needs is a multidimensional measure -- including possibly consumption, primary school enrollments, infant mortality rate, and life expectancy -- that captures the benefits from publicly provided services.

Unit of Analysis

The unit of analysis is the household or the individual. Usually, it is the household, but there is no standard definition of "household." Nor are there standard adult equivalence scales which are used to standardize households composed of one or more adults and children of various sexes and ages.

The term household can mean (1) a common residence (some common housekeeping); (2) common spending (most spending decisions in common, may or may not be family); (3) blood or marital (cohabitation) relationship; and (4) dependence (individual or couple and dependent children).

Adult Equivalence Scales give the relationship between the poverty line for a family and that for an individual. Equivalence scales are meant to take into account differential food requirements and efficiencies of scale (e.g., for housing). Scales vary:

individual	=	1
couple	=	1.25-2.0 depending on country, averaging roughly 1.65
children	=	0.15-0.75 depending on age and country

Subgroups Within the Poor

Extreme or Ultra Poor²

In most developing countries, the ultra-poor will occupy the bottom 10 to 20 percent of the income distribution. Usually they are rural. Their poverty severely affects their quality of life; they suffer disproportionately from illiteracy, malnutrition, disease, short life expectancy, and high infant mortality rates. Distinguishing characteristics of the ultra poor include the following:

- They spend incremental income on more of the same low cost foods;
- They do not get enough food, and consequently suffer from a wide range of physical and mental problems. Their productivity is low; and
- They frequently depend on unskilled labor wages.

If the ultra-poor make up a large component of the poor, there cannot be a big productivity response to improved economic conditions. Participation rates of the ultra-poor are as high as possible already.

² Terms are taken from Michael Lipton, "The Poor and the Poorest, Some Interim Findings," World Bank Discussion Papers no. 25, 1988; and E. Zuckerman, "Poverty and Adjustment, Issues and Practices," Central Evaluation Department, World Bank, March 1988.

Borderline Poor

The borderline poor are low income and vulnerable groups — the old, children, pregnant and lactating women, and landless and poor farmers — who benefit from government subsidies and social programs. They are affected severely by changes in the availability and prices of major items of consumption, especially food, and expenditure cutbacks.

New Poor

The new poor are the direct victims of adjustment, e.g., retrenched civil servants and laid-off public and private enterprise workers who are caught by austerity measures or shifts in production. The new poor see a reduction in income that may or may not place them beneath a poverty line. The new poor previously may have been in the middle class. Depending on whether they can locate new employment and at what wage, they may become either less well off or poor on an absolute standard.

We know, in broad lines, some distinctive characteristics of poor households.

- Households tend to be larger and younger, with a higher dependency ratio. In Venezuela, the average household size of the extreme poor was estimated in 1989 at 6.0, while that of the non-poor was estimated at 4.0. In Mexico, the average number of children in households in the bottom decile is roughly 3.25, in the top decile, it is 0.55. In Colombia, fertility rates in the lowest income groups are estimated to be three times those of the highest.
- Heads of households tend to be poorly educated. In Mexico, the average education level of the head of household for the poorest income decile was 1.3 years; for the top income decile it was 4.8 years. (Levy, Santiago, "Poverty Alleviation in Mexico," World Bank Staff Working Paper # 679, May 1991). In Brazil in 1980, 59 percent of low income heads of households had no formal education, compared to only 25 percent of heads of non-poor households.
- Households devote a higher percentage of expenditures to food. Estimates of the share of expenditures that go for food vary from 50 percent (Venezuela) to 90 percent (Colombia). Budget surveys show a systematic increase in food's budget share as level of income falls.

Urban and Rural Poor

In Latin America, urban poverty is more significant than in other developing regions and increasingly overshadows rural poverty. In some countries — e.g., Venezuela and Brazil — the urban poor already outnumber the rural poor. (See M. Louise Fox and Samuel Morley, "Brazil: Who Paid the Bill? Adjustment and Poverty, 1980-1995," World Bank Staff Working Paper # 648, April 1991.) Rapid urbanization means that this trend will only continue.

Although the rural poor may still contain the "poorest of the poor," even that designation is fading as urban conditions deteriorate. The urban poor face a host of environmental obstacles — poor water and sewerage service, crime, traffic accidents — that can reduce their life expectancy and infant survival rates below those of the rural poor. For instance, in the slums of Port-au-Prince, Haiti, infant mortality rates are over 200 per 1,000, nearly three times the rural average.

Surprisingly, a considerable number of countries in Latin America collect no systematic data on rural incomes and expenditures. Argentina, Chile, Panama, and Peru — among others — have recent household budget information for their major urban areas, but nothing that is nationwide in scope.

B-1

ANNEX B

**IMF/WORLD BANK LENDING FOR
STRUCTURAL ADJUSTMENT**

World Bank and International Monetary Fund concurrent operations, through end of January 1991
(African countries in bold face)

Lender	Country	Board date for World Bank program (FY)	Loan type	Amount (\$ millions)	Date of effectiveness	Date of closure
IMF	Argentina		Stand-by Arrangement		1984-12	1986-05
WB	Argentina	1986	Agricultural Sector Loan	350.0	1986-07	1989-06
IMF	Argentina		Stand-by Arrangement		1987-07	1988-09
WB	Argentina	1987	Trade Policy Loan	500.0	1987-08	1990-06
WB	Argentina	1988 (NCL)	Banking Sector Loan	400.0	-	-
WB	Argentina	1989	2nd Trade Policy Loan	300.0	1988-11	1990-06
IMF	Argentina		Stand-by Arrangement		1989-11	1991-03
WB	Argentina	1992	Public Sector Reform	325.0	1991-09	1993-12
IMF	Benin	1989	SAL I	45.0	1989-06	1990-03
WB	Benin	1991	SAL II	55.0	1991-10	1993-06
IMF	Bolivia		Stand-by Arrangement		1980-02	1981-01
WB	Bolivia	1980	SAL I	50.0	1980-06	1981-06
IMF	Bolivia		Stand-by Arrangement		1986-06	1987-06
WB	Bolivia	1986	Import Reconstruction Loan	55.0	1986-10	1990-06
IMF	Bolivia		Structural Adj. Facility		1986-12	1988-07
WB	Bolivia	1987	2nd Import Reconstruction Loan	47.1	1988-03	1990-06
IMF	Bolivia		Enhanced Structural Adj. Facility		1988-07	1991-07
WB	Bolivia	1988	Financial Sector Loan	70.0	1989-04	1990-06
WB	Bolivia	1992	SAC (SAL)	50.4	1991-12	1994-07
IMF	Brazil		Extended Fund Facility		1983-03	1986-02
WB	Brazil	1984	Export Development Loan	352.0	1983-10	1986-12
WB	Brazil	1984	Ag. and Trade Develop. Loan	303.0	1983-10	1987-03
WB	Brazil	1986	Agricultural Mkt. Reform Loan	500.0	1986-09	1990-06
IMF	Brazil		Stand-by Arrangement		1988-08	1990-02
WB	Burkina Faso	1985 (NCL)	Fertilizer Loan	13.7	1985-11	1991-12
WB	Burkina Faso	1991	SAL I	80.0	1991-09	1993-06
IMF	Burundi		Structural Adj. Facility		1986-08	1989-08
IMF	Burundi		Stand-by Arrangement		1986-08	1988-03
WB	Burundi	1986	SAL I	31.2	1986-09	1988-06

Lender	Country	Board date for World Bank program (FY)	Loan type	Amount (\$ millions)	Date of effectiveness	Date of closure
WB	Burundi	1988	SAL II	90.0	1988-11	1990-12
WB	Burundi	1989	Ag. Services Sector Loan	33.1	1989-07*	1996-12
IMF	Burundi		Extended Fund Facility		1991-11	1994-11
IMF	Cameroon		Stand-by Arrangement		1988-09	1990-03
IMF	Cameroon	1989	SAL I	150.0	1989-11	1991-09
IMF	Cameroon		Stand-by Arrangement		1991-12	1992-09
IMF	Central African Rep.		Stand-by Arrangement		1985-09	1987-03
IMF	Central African Rep.		Stand-by Arrangement		1987-06	1988-05
IMF	Central African Rep.		Structural Adj. Facility		1987-06	1990-05
WB	Central African Rep.	1987	SAL I	30.0	1986-10	1987-12
WB	Central African Rep.	1988	Agricultural Sector Loan	15.0	1987-10	1989-12
WB	Central African Rep.	1988	SAL II	40.0	1988-09	1990-05
WB	Central African Rep.	1990	SAL III	45.0	1990-08	1991-12
IMF	Chad		Structural Adj. Facility		1987-10	1990-10
WB	Chad	1989	Financial Sector Loan	37.5	1988-10	1990-06
WB	Chad	1989	Transportation Sector Loan	60.0	1989-06*	1994-06
IMF	Chile		Extended Fund Facility		1985-08	1989-08
WB	Chile	1986	SAL I	250.0	1985-11	1986-10
WB	Chile	1987	SAL II	250.0	1986-11	1987-12
WB	Chile	1988	SAL III	250.0	1987-12	1989-06
IMF	Chile		Stand-by Arrangement		1989-11	1990-11
WB	China	1988	Rural Sector Loan	300.0	1988-09	1990-07
WB	Colombia	1985	Trade and Export Divers. Loan	300.0	1985-09	1988-06
WB	Colombia	1986	Trade and Ag. Policy Loan	250.0	1986-06	1989-12
WB	Colombia	1988	Energy Sector Loan	300.0	1988-06	1990-01
WB	Colombia	1991	Public Sector Reform	304.0	1991-02	1992-12
IMF	Comoros		Structural Adj. Facility		1991-06	1994-06

Lender	Country	Board date for World Bank program (FY)	Loan type	Amount (\$ millions)	Date of effectiveness	Date of closure
WB	Comoros	1991	Macro. Reform and Cap. Bldg. (SAL)	8.0	1991-07*	1994-06
IMF	Congo		Stand-by Arrangement		1986-08	1988-04
WB	Congo	1987	SAL I	70.0	1987-10	1989-03
IMF	Costa Rica		Extended Fund Facility		1981-06	1984-06
WB	Costa Rica	1983	Export Development Loan	25.2	1984-03	1985-06
IMF	Costa Rica		Stand-by Arrangement		1985-03	1986-04
WB	Costa Rica	1985	SAL I	80.0	1985-08	1986-06
IMF	Costa Rica		Stand-by Arrangement		1987-10	1989-03
IMF	Costa Rica		Stand-by Arrangement		1989-05	1990-05
WB	Costa Rica	1989	SAL II	100.0	1989-11	1991-01
IMF	Costa Rica		Stand-by Arrangement		1991-04	1992-09
IMF	Côte d'Ivoire		Extended Fund Facility		1981-02	1984-02
WB	Côte d'Ivoire	1982	SAL I	150.0	1981-12	1982-12
WB	Côte d'Ivoire	1984	SAL II	250.0	1983-08	1984-12
IMF	Côte d'Ivoire		Stand-by Arrangement		1984-08	1985-05
IMF	Côte d'Ivoire		Stand-by Arrangement		1985-06	1986-06
IMF	Côte d'Ivoire		Stand-by Arrangement		1986-06	1988-06
WB	Côte d'Ivoire	1986	SAL III	250.0	1987-02	1987-12
IMF	Côte d'Ivoire		Stand-by Arrangement		1988-03	1989-04
WB	Côte d'Ivoire	1990	Agricultural Sector Adj.	150.0	1990-06	1991-12
IMF	Côte d'Ivoire		Stand-by Arrangement		1989-11	1991-04
WB	Côte d'Ivoire	1990	Energy Sector Loan	100.0	1989-12	1991-06
WB	Côte d'Ivoire	1990	Water Supply Sewerage Sect. Adj.	80.0	1990-06	1991-12
IMF	Côte d'Ivoire		Stand-by Arrangement		1991-09	1992-09
WB	Côte d'Ivoire	1992	Fin. Sector Adj.	200.0	1991-10	1993-09
WB	Côte d'Ivoire	1992	Regulatory Reform	100.0	1991-12 ^b	1993-09
WB	Côte d'Ivoire	1992	Human Resources Development	150.0	1992-01	1993-12
IMF	Ecuador		Stand-by Arrangement		1985-03	1986-03
WB	Ecuador	1986	Agricultural Sector Loan	100.0	1986-02	1989-06
IMF	Ecuador		Stand-by Arrangement		1986-08	1987-08

Lender	Country	Board date for World Bank program (FY)	Loan type	Amount (\$ millions)	Date of effectiveness	Date of closure
WB	Ecuador	1988	Financial Sector Loan	100.0	1987-12	1989-12
IMF	Ecuador		Stand-by Arrangement		1988-01	1989-02
IMF	Ecuador		Stand-by Arrangement		1989-09	1991-02
IMF	El Salvador		Stand-by Arrangement		1990-08	1991-08
WB	El Salvador	1991	SAL I	75.0	1991-05	1993-06
IMF	El Salvador		Stand-by Arrangement		1992-01	1993-03
IMF	Gabon		Stand-by Arrangement		1986-12	1988-12
WB	Gabon	1988	SAL I	50.0	1988-05	1989-12
IMF	Gabon		Stand-by Arrangement		1989-09	1991-03
IMF	Gambia		Stand-by Arrangement		1986-09	1987-10
WB	Gambia	1987	SAL I	16.5	1986-10	1988-06
IMF	Gambia		Enhanced Structural Adj. Facility		1988-11	1991-11
WB	Gambia	1989	SAL II	23.0	1989-08	1991-06
IMF	Ghana		Stand-by Arrangement		1983-08	1984-08
WB	Ghana	1983	Trade and Import Sector Loan	40.0	1983-08	1986-03
WB	Ghana	1984	Export Rehab. Loan	76.0	1984-06	1988-12
IMF	Ghana		Stand-by Arrangement		1984-08	1985-12
WB	Ghana	1985	2nd Trade and Import Sector Loan	87.0	1985-08	1988-12
WB	Ghana	1986	Industrial Sector Loan	53.5	1986-06	1990-12
IMF	Ghana		Stand-by Arrangement		1986-10	1987-10
WB	Ghana	1987	Educational Sector Loan	34.5	1987-04	1990-12
WB	Ghana	1987	SAL I	115.0	1987-05	1990-06
IMF	Ghana		Extended Fund Facility		1987-11	1990-11
IMF	Ghana		Structural Adj. Facility		1987-11	1988-11
WB	Ghana	1988	Financial Sector Loan	100.0	1988-08	1990-09
IMF	Ghana		Enhanced Structural Adj. Facility		1988-11	1991-11
WB	Ghana	1989	SAL II	120.0	1989-06	1991-03
WB	Ghana	1990	Education SAC II	50.0	1990-07	1994-02
WB	Ghana	1991	Priv. Invest. Promotion (SAL)	126.1	1991-07	1993-07
WB	Ghana	1992	FINSAC	100.0	1991-12 ^a	1995-03

Lender	Country	Board date for World Bank program (FY)	Loan type	Amount (\$ millions)	Date of effectiveness	Date of closure
IMF	Guinea		Stand-by Arrangement		1986-02	1987-03
WB	Guinea	1986	SAL I	42.0	1986-05	1988-12
IMF	Guinea		Structural Adj. Facility		1987-07	1990-07
IMF	Guinea		Stand-by Arrangement		1987-07	1988-08
WB	Guinea	1988	SAL II	65.0	1989-03	1990-12
WB	Guinea	1990	Education Sec. Adj. Loan	20.0	1990-11	1993-06
IMF	Guinea		Enhanced Structural Adj. Facility		1991-11	1994-11
WB	Guinea Bissau	1985	Import Reconstruction Loan	15.0	1985-02	1989-06
WB	Guinea Bissau	1987	SAL I	15.0	1987-06	1990-07
WB	Guinea Bissau	1989	SAL II	23.4	1989-08	1992-06
IMF	Guinea Bissau		Structural Adj. Facility		1987-10	1990-10
IMF	Guyana		Extended Fund Facility		1979-06	1982-06
IMF	Guyana		Extended Fund Facility		1980-07	1983-07
WB	Guyana	1981	SAL I	22.0	1981-03	1983-06
IMF	Guyana		Stand-by Arrangement		1990-07	1991-12
IMF	Guyana		Enhanced Structural Adj. Facility		1990-07	1993-07
WB	Guyana	1990	SAC	74.6	1990-08	1993-12
WB	Honduras	1989	SAL I	50.0	1988-11	1989-12
IMF	Honduras		Stand-by Arrangement		1990-07	1992-02
WB	Honduras	1991	SAL II	90.0	1990-11	1992-06
WB	Honduras	1991	SAC (SAL)	20.0	1991-04	2001-06
WB	Honduras	1992	Energy Sector	83.8	1991-10	1993-12
IMF	Jamaica		Extended Fund Facility		1978-06	1981-06
IMF	Jamaica		Extended Fund Facility		1979-06	1981-06
WB	Jamaica	1979	Export Develop. Fund Loan	31.5	1979-08	1982-12
IMF	Jamaica		Extended Fund Facility		1981-04	1984-04
WB	Jamaica	1981	2nd Export Develop. Fund Loan	37.0	1981-08	1983-12
WB	Jamaica	1982	SAL I	76.2	1982-03	1983-03
WB	Jamaica	1983	SAL II	60.2	1983-06	1984-05
WB	Jamaica	1983 (NCL)	Export Develop. Fund III	30.1	1985-04	1986-12

Lender	Country	Board date for World Bank program (FY)	Loan type	Amount (\$ millions)	Date of effectiveness	Date of closure
IMF	Jamaica		Stand-by Arrangement		1984-06	1985-06
WB	Jamaica	1985	SAL III	55.0	1984-11	1985-06
IMF	Jamaica		Stand-by Arrangement		1985-07	1987-05
IMF	Jamaica		Stand-by Arrangement		1987-03	1988-05
WB	Jamaica	1987	Trade and Finance Sectors Loan	40.0	1987-06	1988-12
WB	Jamaica	1987	Public Enterprise Sector Loan	20.0	1987-06	1988-12
IMF	Jamaica		Stand-by Arrangement		1988-09	1990-05
WB	Jamaica	1990	Agriculture Sec. Adj.	25.0	1990-03	1993-03
IMF	Jamaica		Stand-by Arrangement		1990-03	1991-05
WB	Jamaica	1991	Trade and Fin. SAD II	30.0	1991-03	1991-12
IMF	Jamaica		Stand-by Arrangement		1991-06	1992-09
IMF	Kenya		Stand-by Arrangement		1979-08	1981-08
WB	Kenya	1980	SAL I	70.0	1980-06	1980-12
IMF	Kenya		Stand-by Arrangement		1980-10	1982-10
IMF	Kenya		Stand-by Arrangement		1982-01	1983-01
WB	Kenya	1983	SAL II	130.9	1982-08	1983-12
IMF	Kenya		Stand-by Arrangement		1983-03	1984-09
IMF	Kenya		Stand-by Arrangement		1985-02	1986-02
WB	Kenya	1986	Agricultural Sector Loan	60.0	1987-03	1988-06
IMF	Kenya		Structural Adj. Facility		1988-02	1991-01
IMF	Kenya		Stand-by Arrangement		1988-02	1989-07
WB	Kenya	1988	Industry and Trade Sectors Loan	112.0	1988-08	1990-04
IMF	Kenya		Enhanced Structural Adj. Facility		1989-05	1992-05
WB	Kenya	1989	Financial Sector Loan	120.0	1989-07	1991-09
WB	Kenya	1991	Export Development	100.0	1990-12	1995-06
WB	Kenya	1991	Ag. Sector Adjust. II	75.0	1991-05	1995-12
WB	Kenya	1992	Education Sect. Adj. Credit	100.0	1991-09	1994-06
IMF	Madagascar		Stand-by Arrangement		1985-04	1986-04
WB	Madagascar	1985	Industrial Assistance Loan	60.0	1985-08	1989-03
IMF	Madagascar		Stand-by Arrangement		1986-09	1988-02

Lender	Country	Board date for World Bank program (FY)	Loan type	Amount (\$ millions)	Date of effectiveness	Date of closure
WB	Madagascar	1986	Agricultural Sector Loan	93.0	1986-11	1989-12
IMF	Madagascar		Structural Adj. Facility		1987-08	1990-08
WB	Madagascar	1987	Industry and Trade Policy Loan	83.0	1987-09	1989-12
IMF	Madagascar		Stand-by Arrangement		1988-09	1989-07
WB	Madagascar	1988	Public Sector Adjustment Loan	125.0	1988-12	1990-12
IMF	Madagascar		Enhanced Structure' Adj. Facility		1989-05	1992-05
IMF	Malawi		Stand-by Arrangement		1979-10	1981-12
WB	Malawi	1981	SAL I	45.0	1981-08	1982-12
IMF	Malawi		Stand-by Arrangement		1982-08	1983-08
WB	Malawi	1983	Fertilizer Loan	5.0	1983-06	1988-03
IMF	Malawi		Extended Fund Facility		1983-09	1986-09
WB	Malawi	1984	SAL II	55.0	1984-01	1985-06
WB	Malawi	1986	SAL III	70.0	1985-12	1988-09
IMF	Malawi		Stand-by Arrangement		1988-03	1989-05
IMF	Malawi		Enhanced Structural Adj. Facility		1988-07	1991-07
WB	Malawi	1988	Industry and Trade Policy Loan	70.0	1988-09	1990-12
WB	Malawi	1990	Agriculture Sector	70.0	1990-04	1991-12
IMF	Mali		Stand-by Arrangement		1983-12	1985-05
IMF	Mali		Stand-by Arrangement		1988-08	1989-10
IMF	Mali		Structural Adj. Facility		1988-08	1991-08
WB	Mali	1988	Public Sector Loan	40.0	1988-09	1990-12
WB	Mali	1989	Human Resources Loan	26.0	1989-07*	1994-12
WB	Mali	1990	Agriculture Secal	53.0	1990-09	1996-12
WB	Mali	1991	SAL I	70.0	1991-03	1993-06
IMF	Mauritania		Stand-by Arrangement		1985-04	1986-04
WB	Mauritania	1985	Public Sector Loan	16.4	1986-03	1990-12
WB	Mauritania	1986	Public Enterprise Loan	20.0	1986-03	1988-12
IMF	Mauritania		Stand-by Arrangement		1986-04	1987-04

Lender	Country	Board date for World Bank program (FY)	Loan type	Amount (\$ millions)	Date of effectiveness	Date of closure
IMF	Mauritania		Stand-by Arrangement		1986-04	1987-04
IMF	Mauritania		Structural Adj. Facility		1986-09	1989-09
IMF	Mauritania		Stand-by Arrangement		1987-05	1988-05
WB	Mauritania	1987	SAL I	42.4	1987-08	1988-12
IMF	Mauritania		Enhanced Structural Adj. Facility		1989-05	1992-05
WB	Mauritania	1990	P.E. Sector Adj.	40.0	1990-08	1992-12
WB	Mauritania	1990	Agri. Secal/Irrig. Improvement	25.0	1990-04	1995-12
IMF	Mauritius		Stand-by Arrangement		1979-10	1981-10
IMF	Mauritius		Stand-by Arrangement		1980-09	1981-09
WB	Mauritius	1981	SAL I	15.0	1981-06	1982-06
IMF	Mauritius		Stand-by Arrangement		1981-12	1982-12
IMF	Mauritius		Stand-by Arrangement		1983-05	1984-08
WB	Mauritius	1984	SAL II	40.0	1984-03	1985-06
IMF	Mauritius		Stand-by Arrangement		1985-03	1985-08
WB	Mauritius	1987 (NCL)	Industrial Sector Loan	25.0	1987-10	1989-06
IMF	Mexico		Extended Fund Facility		1983-01	1985-12
WB	Mexico	1983	Export Development Loan	352.0	1983-12	1985-06*
IMF	Mexico		Stand-by Arrangement		1986-11	1988-04
WB	Mexico	1987	Trade Policy Loan	500.0	1986-11	1990-11
WB	Mexico	1988	2nd Trade Policy Loan	500.0	1988-01	1988-12
WB	Mexico	1988	Agricultural Sector Loan	300.0	1988-03	1990-11
IMF	Mexico		Extended Fund Facility		1989-05	1992-05
WB	Mexico	1989	Financial Sector Loan	500.0	1989-06	1991-06
WB	Mexico	1989	Industrial Sector Loan	500.0	1989-06	1990-06
WB	Mexico	1989	Public Enterprises Reform Loan	500.0	1989-07	1991-06
WB	Mexico	1989	Industrial Reconstruction Loan	250.0	1989-09*	1994-12
WB	Mexico	1988	Fertilizer Sector Loan	265.0	1989-11	1993-12
WB	Mexico	1990	Rd. Trans/Telecom Sector Adj.	380.0	1990-06	1991-06
WB	Mexico	1990	Spec. Interest Support	1260.0	1990-02	1990-05
WB	Mexico	1991	Agric. Sector Adj. II	400.0	1991-12	1993-02

Lender	Country	Board date for World Bank program (FY)	Loan type	Amount (\$ millions)	Date of effectiveness	Date of closure
WB	Mexico	1991	Export Sector	300.0	1991-05	1993-12
IMF	Mozambique		Structural Adj. Facility		1987-06	1990-06
WB	Mozambique	1988	Economic Recovery Program	88.6	1987-10	1990-12
WB	Mozambique	1989	Economic Recovery Program	90.0	1989-08	1991-04
IMF	Mozambique		Enhanced Structural Adj. Facility		1990-06	1993-05
IMF	Nicaragua		Stand-by Arrangement		1991-09	1993-03
WB	Nicaragua	1992	Economic Rec. CR (SAL)	120.3	1991-11	1992-12
IMF	Niger		Stand-by Arrangement		1985-12	1986-12
WB	Niger	1986	SAL I	60.0	1986-05	1987-12
IMF	Niger		Structural Adj. Facility		1986-11	1988-12
IMF	Niger		Stand-by Arrangement		1986-12	1987-12
WB	Niger	1987	Public Enterprises Reform Loan	80.0	1988-01	1990-09
IMF	Niger		Enhanced Structural Adj. Facility		1988-12	1991-12
WB	Nigeria	1984	Fertilizer Sector Loan	250.0	1983-12	1986-12
WB	Nigeria	1987	Trade and Investment Sector Loan	452.0	1986-11	1989-12
IMF	Nigeria		Stand-by Arrangement		1987-01	1988-01
WB	Nigeria	1989	2nd Trade and Investment Loan	500.0	1988-12	1990-03
IMF	Nigeria		Stand-by Arrangement		1989-02	1990-04
WB	Nigeria	1990	Education University Dev.	120.0	1990-10	1994-06
IMF	Nigeria		Stand-by Arrangement		1991-01	1992-04
IMF	Panama		Stand-by Arrangement		1983-06	1985-12
WB	Panama	1984	SAL I	60.2	1983-12	1984-12
IMF	Panama		Stand-by Arrangement		1985-07	1987-03
WB	Panama	1987 (NCL)	SAL II	100.0	1986-12	1987-12*
WB	Papua New Guinea	1990	SAL	50.0	1990-10	1992-06
IMF	Rwanda		Structural Adj. Facility		1991-04	1994-04
WB	Rwanda	1991	SAL I	1990.0	1991-10	1993-12
WB	Sao Tome & Principe	1987	SAL I	197.0	1988-01	1990-03

Lender	Country	Board date for World Bank program (FY)	Loan type	Amount (\$ millions)	Date of effectiveness	Date of closure
IMF	Sao Tome & Principe		Structural Adj. Facility		1989-06	1992-06
WB	Sao Tome & Principe	1990	SAC II	9.8	-	1993-12
IMF	Senegal		Extended Fund Facility		1980-08	1983-08
WB	Senegal	1981 (NCL)	SAL I	60.0	1981-03	1983-06
IMF	Senegal		Stand-by Arrangement		1981-09	1982-09
IMF	Senegal		Stand-by Arrangement		1982-11	1983-11
IMF	Senegal		Stand-by Arrangement		1985-01	1986-07
WB	Senegal	1986	SAL II	64.0	1986-02	1987-06
IMF	Senegal		Structural Adj. Facility		1986-11	1988-11
IMF	Senegal		Stand-by Arrangement		1986-11	1987-11
IMF	Senegal		Stand-by Arrangement		1987-10	1988-10
IMF	Senegal		Enhanced Structural Adj. Facility		1988-11	1991-11
WB	Senegal	1987	SAL III	85.0	1989-05	1990-02
WB	Senegal	1990	Banking Financial Sector	45.0	1989-12	1991-06
WB	Senegal	1990	SAL IV	80.0	1990-02	1992-04
IMF	Sierra Leone		Stand-by Arrangement		1984-02	1985-02
WB	Sierra Leone	1984	Agricultural Sector Loan	21.5	1984-12	1988-06
IMF	Sierra Leone		Structural Adj. Facility		1986-11	1989-11
IMF	Sierra Leone		Stand-by Arrangement		1986-11	1987-11
WB	Somalia	1986	Agricultural Sector Loan	62.6	1986-08	1989-12
IMF	Somalia		Structural Adj. Facility		1987-06	1990-06
IMF	Somalia		Stand-by Arrangement		1987-06	1989-02
WB	Somalia	1989	2nd Agricultural Sector Loan	70.0	1989-08	1992-01
IMF	Sudan		Extended Fund Facility		1979-05	1982-05
WB	Sudan	1980	Agricultural Rehab. Loan	65.0	1981-02	1989-06
IMF	Sudan		Stand-by Arrangement		1982-02	1983-02
IMF	Sudan		Stand-by Arrangement		1983-02	1984-03
WB	Sudan	1983	2nd Agricultural Rehab. Loan	50.0	1983-12	1986-11
IMF	Sudan		Stand-by Arrangement		1984-06	1985-06
IMF	Tanzania		Stand-by Arrangement		1980-09	1982-06

Lender	Country	Board date for World Bank program (FY)	Loan type	Amount (\$ millions)	Date of effectiveness	Date of closure
WB	Tanzania	1981	Export Rehab. Loan	50.0	1981-05	1983-03
IMF	Tanzania		Stand-by Arrangement		1986-08	1988-02
IMF	Tanzania		Structural Adj. Facility		1987-10	1990-10
WB	Tanzania	1987	Multisector Rehab. Program	96.2	1988-02	1989-12
WB	Tanzania	1989	Industry Rehab. and Trade Loan	135.0	1989-10	1990-04
WB	Tanzania	1990	Agr. Adj. Credit	200.0	1990-04	1992-06
IMF	Tanzania		Enhanced Structural Adj. Facility		1991-07	1994-07
IMF	Tanzania	1992	Fin Sector	200.0	1991-11	1994-06
IMF	Togo		Stand-by Arrangement		1983-03	1984-04
WB	Togo	1983	SAL I	40.0	1983-09	1985-12
IMF	Togo		Stand-by Arrangement		1984-05	1985-05
IMF	Togo		Stand-by Arrangement		1985-05	1986-05
WB	Togo	1985	SAL II	37.8	1985-09	1987-12
IMF	Togo		Stand-by Arrangement		1986-06	1988-04
IMF	Togo		Structural Adj. Facility		1988-03	1991-03
IMF	Togo		Stand-by Arrangement		1988-03	1989-04
IMF	Togo	1988	SAL III	45.0	1988-06	1990-05
IMF	Togo		Enhanced Structural Adj. Facility		1989-05	1993-05
WB	Togo	1991	SAL IV	55.0	1990-12	1993-03
WB	Togo	1991	Population/Health Adj.	14.2	1991-03*	1995-06
c IMF	Trinidad and Tobago		Stand-by Arrangement		1989-01	1990-02
IMF	Trinidad and Tobago		Stand-by Arrangement		1990-04	1991-03
WB	Trinidad and Tobago	1990	SAL	40.0	1990-04	1991-12
IMF	Uganda		Stand-by Arrangement		1982-08	1983-08
WB	Uganda	1983	Agricultural Sector Loan	70.0	1983-07	1990-06
IMF	Uganda		Stand-by Arrangement		1983-09	1984-09
IMF	Uganda		Structural Adj. Facility		1987-06	1989-04
WB	Uganda	1988	Economic Recovery Program	65.0	1987-10	1990-03

Lender	Country	Board date for World Bank program (FY)	Loan type	Amount (\$ millions)	Date of effectiveness	Date of closure
IMF	Uganda		Enhanced Structural Adj. Facility		1989-04	1992-11
WB	Uganda	1990	Economic Recovery II	125.0	1990-12	1991-12
WB	Uganda	1991	Agr. Sector Adj. Credit	100.0	1991-01	1995-06
WB	Uganda	1992	SAC I (SAL)	125.0	1992-01	1994-01
IMF	Uruguay		Stand-by Arrangement		1983-04	1985-04
WB	Uruguay	1984	Agricultural Sector Loan	60.0	1984-12	1986-09
IMF	Uruguay		Stand-by Arrangement		1985-09	1987-03
WB	Uruguay	1987	SAL I	80.0	1987-10	1988-12
WB	Uruguay	1989	SAL II	140.0	1989-08	1990-12
IMF	Uruguay		Stand-by Arrangement		1990-12	1992-03
WB	Uruguay	1991	DDSR Support (DRL)	65.0	1991-05 ^b	1991-12
WB	Venezuela		Extended Fund Facility		1989-06	1993-03
WB	Venezuela	1989	Trade Policy Loan	353.0	1989-11	1991-06
WB	Venezuela	1989	SAL I	402.0	1989-11	1991-06
WB	Venezuela	1990	Financial Sector Adj.	300.0	1990-12	1993-06
WB	Venezuela	1990	Public Enterprise Reform	350.0	1990-12	1993-06
WB	Venezuela	1991	Interest Support Loan	150.0	1990-12	1991-02
IMF	Zaire		Stand-by Arrangement		1986-05	1988-03
WB	Zaire	1986	Industrial Sector Loan	80.0	1987-01	1988-06
IMF	Zaire		Structural Adj. Facility		1987-05	1990-05
IMF	Zaire		Stand-by Arrangement		1987-05	1988-05
WB	Zaire	1987	SAL I	149.3	1987-09	1989-12
IMF	Zaire		Stand-by Arrangement		1989-06	1990-06
IMF	Zambia		Extended Fund Facility		1981-05	1984-05
IMF	Zambia		Stand-by Arrangement		1983-04	1984-04
IMF	Zambia		Stand-by Arrangement		1984-07	1986-04
WB	Zambia	1984	Export Rehab and Diversification	75.0	1984-07	1988-09
WB	Zambia	1985	Agricultural Sector Loan	35.0	1985-08	1988-06
WB	Zambia	1986	Industrial Sector Loan	62.0	1985-11	1988-12
IMF	Zambia		Stand-by Arrangement		1986-02	1988-02
IMF	Zambia		Stand-by Arrangement		1986-02	1988-02

Lender	Country	Board date for World Bank program (FY)	Loan type	Amount (\$ millions)	Date of effectiveness	Date of closure
WB	Zambia	1986	Economic Recovery Program	50.0	1986-12	1990-06
WB	Zambia	1991	Recovery Credit (SAL)	237.2	1991-03	1992-06
IMF	Zimbabwe		Stand-by Arrangement		1983-03	1984-09
WB	Zimbabwe	1983	Export Industry Policy Loan	70.6	1983-03	1987-07

NCL = loan canceled, partly or totally. DRL = Debt Reduction Loan. Loan Supplements are not listed but are added into the total.
Note: IMF loans are only those that were in place between the Board date and termination dates of World Bank adjustment loans, or those that became effective within two years of Board date of World Bank adjustment loan.

- a. Agreement date listed, as loan is not yet effective.
- b. Approval date listed, as loan is not yet effective.
- c. Loan subsequently canceled.

Source: World Bank and IMF data.

ANNEX C
DEFINITIONS OF ADJUSTMENT LENDING
LATIN AMERICA

DEFINITIONS OF ADJUSTMENT LENDING

Source

Criteria

WORLD BANK APPROACHES

RAL I (1988) **AL** = all countries that had received a structural adjustment loan (SAL) by 1988
IAL = countries that received 3 or more SALs before 1986
pre-1985 AL = countries that had received their first SAL before 1985
NAL = countries that had not received a SAL by 1988

RAL II (1990) **EIAL** = countries that had received at least 2 SALs or 3 Adjustment Operations, starting before 1986
OAL = other countries that received adjustment lending
NAL = countries that did not receive adjustment lending in the period 1980-1988; within NAL there is NA for countries that did not adjust although it was necessary for them to do so, and NN for other NAL countries.

**Kakwani, Makonnen
and van der Gaag
(1990)**

IAL = countries that received 3 or more SALs or had completed 2 SALs [by 1988]. Lending started before 1986
pre-1986 = countries that received fewer than 3 SALs but were included in the program before 1986
post-1985 = Countries that received adjustment loans after 1985 (1986-1988)
NAL+ = non-adjusting countries that had an increase in average annual per capita GDP growth during 1980-1987
NAL- = non-adjusting countries that had a decrease in average annual per capita GDP growth during 1980-1987

EXPERT OPINION

**WILLIAMSON
APPROACH (1991)**

Policy Reformers = countries that have implemented major reform programs (adhering to the "Washington consensus" view laid out in the text) before 1988

Partial Policy Reformers = countries that have implemented policies for stabilization, but not liberalization before 1988

Recent Policy Reformers = countries that have implemented major reform programs on or after 1988

Non-Reformers = countries that have undertaken partial or half-hearted reforms

CATEGORIZATION OF LATIN AMERICAN COUNTRIES

Source:

Category:	Country			
World Bank Approach	IAL	pre-1986	post-1985	NAL
	Bolivia ('80) BRAZIL ('83) Chile* ('85) Colombia ('85) Costa Rica ('84) Jamaica ('82) Mexico ('83)	Ecuador ('86) GUYANA ('81) Panama ('84) Uruguay ('84)	Argen. ('86) Honduras('88)	Dominican Repub. + EL SALV.- GUATEM.- Haiti- Nicarag.- Paraguay + Peru + TRIN.& TOBAGO- VENEZ.-

+/- = NAL+/NAL-

Williamson Approach	Policy Reformers	Partial Reformers	Recent Reformers	Non-Reformers
	Bolivia ('85) Chile ('83) Costa Rica ('82) Jamaica ('84) TRINIDAD & TOBAGO ('87) Uruguay ('85)	Colombia ('84) GUAT. ('86) Ecuador ('86)	Argen.('89) EL SALV.('89) GUYANA ('88) MEXICO('88) Paraguay('89) VENEZ. ('89)	BRAZIL Dominican Republic Honduras Nicaragua Peru

N.B. Countries whose classification differs significantly between the World Bank and the Williamson approaches are listed in all-caps.

Numbers in parentheses mark the year in which reform efforts are judged to have started. These dates form the basis for our analysis of the comparative performance of "adjusting" and "non-adjusting" countries.

For the World Bank Approach, we date the start of reforms to the first World Bank adjustment loan (SAL or SECAL). We note that Ecuador received its first SAL in 1986. We have found no reference to an earlier SECAL, and are unsure of why it is listed as a "pre-1986" adjuster. El Salvador and Venezuela began ambitious reform programs in 1989. They are listed as non-reformers under the World Bank Approach because of that approach's 1988 cut-off date.

For the Expert Opinion (Williamson Approach), we use as the start date the date of each country's most recent sustained reform effort — whether or not the program is supported by the World Bank/IMF. For our charts, we include the "Recent Reformers" with the "Non-Reformers" since their reform programs are so new that the countries are effectively non-reformers in the time frame of this study.

ANNEX D
STATISTICAL TABLES
LATIN AMERICA

REAL PER CAPITA PRIVATE CONSUMPTION, INDEXED

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	Average 1980-82	Average 1987-89	Average 1990-92
Argentina	100.00	94.74	89.98	72.46	84.18	90.08	102.38	108.06	92.35	92.89				94.91	97.77	
Bolivia	100.00	94.93	88.94	81.28	55.67	75.03	79.30	82.93	81.26	80.02	79.87	82.04		94.62	81.40	80.95
Brazil	100.00	94.43	97.33	100.56	99.27	94.22	102.37	95.28	88.82	87.88	87.79			97.25	90.66	87.79
Chile	100.00	109.24	93.28	88.58	92.23	88.25	91.20	92.94	94.86	103.98	106.02	109.92	120.83	100.84	97.28	112.26
Colombia	100.00	103.42	102.81	101.08	100.37	99.18	97.48	102.24	103.43	99.69	101.96	103.41		102.08	101.79	102.68
Costa Rica	100.00	88.93	77.54	80.52	87.36	83.98	79.00	85.32	86.13	86.83	89.42	86.50	93.99	88.82	86.26	89.97
Dominican Republic	100.00	94.26	93.77	93.90	94.48	91.03	89.07	93.56	90.68	98.76	95.98	97.57		96.01	96.34	96.77
Ecuador	100.00	104.41	104.83	103.49	102.12	104.13	108.27	104.62	109.89	111.48	108.30	110.36		103.08	108.66	109.33
El Salvador	100.00	96.31	89.38	89.93	92.26	96.25	89.36	95.40	95.04	96.49	105.05	105.55		95.23	95.64	105.30
Guatemala	100.00	101.26	95.40	91.51	89.36	86.57	82.18	86.26	86.55	86.94	87.33	89.19		98.89	86.58	88.26
Haiti	100.00	102.80	91.36	90.65	88.25	96.10	85.08	83.88	84.62	81.61	69.88	70.21		98.05	83.37	70.04
Honduras	100.00	102.87	100.42	98.90	99.40	98.26	94.67	94.62	92.26	96.44	93.34	94.81		101.10	94.44	94.08
Jamaica	100.00	106.43	104.99	106.86	100.00	97.50	88.93	89.53	89.14	97.04	0.00			103.81	91.90	
Mexico	100.00	101.92	94.26	87.25	91.15	93.94	93.76	90.22	94.38	96.89	99.99	102.85		98.73	93.83	101.42
Nicaragua	100.00	91.13	81.72	68.26	64.48	51.37	57.06	50.88	68.86	0.00	0.00	0.00		90.95	39.91	
Panama	100.00	97.45	100.28	103.10	112.49	114.91	106.64	105.84	89.45	99.81	94.63	106.45		99.24	98.37	100.54
Paraguay	100.00	105.26	106.01	104.43	102.12	102.62	101.64	99.39	105.89	105.95	104.61	111.58		103.76	103.74	109.10
Peru	100.00	104.99	92.25	88.96	95.19	93.76	106.99	112.26	102.38	88.90	93.70			99.08	101.18	93.70
Trinidad & Tobago	100.00	112.64	132.37	126.31	102.27	93.03	103.59	90.89	95.34	85.46	84.22	96.96		115.00	90.56	90.59
Uruguay	100.00	100.09	90.29	78.13	77.79	77.12	83.37	91.85	89.68	90.37	90.61	94.70	105.16	96.79	90.64	96.82
Venezuela	100.00	102.26	111.08	99.74	98.92	98.81	109.48	107.82	114.95	101.42	99.88	116.50	129.42	104.44	108.06	115.27

SOURCE: INTERNATIONAL FINANCIAL STATISTICS, VARIOUS YEARS

BEST AVAILABLE DOCUMENT

D-3

171

REAL AVERAGE WAGES, INDEXED

	1980	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	Average 1980-82	Average 1987-89	Average 1990-92
Argentina	100	80	101	117	106	102	94	93	85	80	76	76	90	91	77
Bolivia	100	87	90	88	70	54	57	88	70	77	85		94	65	81
Brazil-Rio	100	122	113	105	112	122	105	103	102	88	88	106	111	103	94
Brazil-Sao Paulo	100	107	94	97	120	151	143	152	165	142	122	133	104	153	132
Chile	100	109	97	97	93	95	94	101	103	105	110	115	105	99	110
Colombia	100	105	110	118	115	120	119	118	119	113	115	117	103	119	115
Costa Rica	100	71.6	79.1	85.4	95.4	98.8	98	96.7	100.3	104			86	98	104
Mexico	100	102	81	75	76	72	71	72	75	78	83	85	101	73	82
Paraguay	100	102	95	92	90	86	96	102	109	107			101	102	107
Peru	100	110	93	87	78	98	101	78	42	36	42	43	105	73	40
Uruguay	100	107	85	72	67	72	75	76	76	71	73	75	104	76	73
Venezuela	100	93	88	78	74	74	67	62	55	53	55		97	61	54

SOURCE: CEPAL, EXCEPT FOR COSTA RICA (ZUVEKAS, 1992).

REAL MINIMUM WAGES, INDEXED

	1980	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	Average 1980-82	Average 1987-89	Average 1990-92
Argentina	100	98	137	168	117	110	121	94	42	41	56	45	99	86	47
Bolivia	100	100	103	88	48	32	38	39	37	31			100	38	31
Brazil-Rio	100	107	97	87	89	89	73	69	72	53	60	55	104	71	56
Chile	100	117	94	81	78	74	69	74	80	88	96	100	109	74	95
Colombia	100	104	108	114	110	114	113	110	111	108	104	103	102	111	105
Ecuador	100	76	64	63	61	65	61	53	47	36	31	32	88	54	33
Mexico	100	93	77	72	71	65	62	54	51	46	44	42	97	56	44
Paraguay	100	101	94	94	100	108	123	135	138	132	126	115	101	132	124
Peru-Lima	100	80	81	62	54	56	60	52	25	23	16	16	90	46	18
Uruguay	100	104	89	89	93	89	90	85	78	69	62	62	102	84	64
Venezuela	100	79	74	67	97	91	109	90	73	59	55		90	91	57

SOURCE: CEPAL

BEST AVAILABLE DOCUMENT

172

172

URBAN UNEMPLOYMENT RATES (% OF URBAN LABOR FORCE)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	Average 1980-82	Average 1987-89	Average 1990-92
Argentina	2.6	4.7	5.3	4.7	4.6	6.1	5.6	5.9	6.3	7.6	7.5	6.5	6.9	4.2	6.6	7.0
Bolivia	7.5			8.5	6.9	5.6	7	7.2	11.6	10.2	9.5	7	6.8	7.5	9.7	7.8
Brazil	7.2	7.9	6.3	6.7	7.1	5.3	3.6	3.7	3.8	3.3	4.3	4.8	5.9	7.1	3.6	5.0
Chile	11.7	11.1	22.1	19	18.5	17	13.1	11.9	10.2	7.2	6.5	7.3		15.0	9.8	6.9
Colombia	9.7	8.2	9.3	11.7	13.4	14.1	13.8	11.8	11.2	9.9	10.3	10	10.5	9.1	11.0	10.3
Costa Rica	4.9	5.9	8.8	2.4	9	6.9	5.9	5.6	5.5					6.5	5.6	
Ecuador	5.7	6	6.3	6.7	10.5	10.4	10.7	7.2	7.4	7.9	6.1	8.5		6.0	7.5	7.3
Guatemala					9.1	12	14	11.4	8.8	6.2	6.4	6.5			8.8	6.5
Honduras					10.7	11.7	12.1	11.4	8.7	7.2	6.9	7.6			9.1	7.3
Mexico	4.5	4.2	4.2	6.6	5.7	4.4	4.3	3.9	3.5	2.9	2.9	2.7	3.2	4.3	3.4	2.9
Paraguay	2.1	4.6	9.4	15	7.3	5.1	6.1	5.5	4.7	6.1	6.6	5.1	6	5.4	5.4	5.9
Peru	10.9	6.8	6.6	9	8.9	10.1	5.4	4.8	7.9	7.9	8.3	5.9		8.1	6.9	7.1
Uruguay	7.4	6.7	11.9	15.5	14	13.1	10.7	9.3	9.1	8.6	9.3	8.9	9.3	8.7	9.0	9.2
Venezuela	6.6	6.8	7.8	11.2	14.3	14.3	12.1	9.9	7.9	9.7	10.5	10.1	8	7.1	9.2	9.5

SOURCE: CEPAL, EXCEPT FOR COSTA RICA (HORTON, KANBUR, AND MAZUMDAR, 1990)

173

BEST AVAILABLE DOCUMENT

GOVERNMENT EXPENDITURES (NET OF INTEREST) AS A PERCENTAGE OF GDP

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	Average 1980-198	Average 1987-89	Average 1990-92
Argentina	23.29	18.18	15.54	19.33	14.49	20.97	19.85	18.44	14.17	11.09				19.00	14.56	
Bolivia	13.17	13.20	8.55	14.29	32.38		10.75	9.90	11.51	12.23	13.59	13.91		11.64	11.21	13.75
Brazil	17.23	18.00	18.00		14.58	14.28	15.71	15.18	0.02	12.43	7.61	16.72		17.74	9.21	12.16
Chile	27.22	29.04	33.59	30.67	31.20	28.48	28.74	24.70	24.73	19.22	18.53	19.21	19.65	29.95	22.88	19.13
Colombia	12.81	13.33	15.14	14.48	14.54	13.27	12.61	12.27	12.25	12.84				13.76	12.46	
Costa Rica	22.88	19.40	16.76	21.68	20.66	19.94	24.05	24.98	22.19	23.72	22.51			19.67	23.63	22.51
Dominican Republic	15.94	15.13	12.65	12.85	12.61	13.73	14.87	16.36	18.85	13.72	11.14			14.58	16.31	11.14
Ecuador	12.90	14.83	15.50	13.28	13.12	15.09	15.76	15.47	13.06	11.02	10.84			14.41	13.39	10.84
El Salvador	16.67	17.54	17.42	0.00	16.29	17.43	11.20	11.33	10.16	9.41	8.93	9.16	9.14	17.21	10.30	9.08
Guatemala	13.76	15.46	13.80	12.05	9.84	8.73	8.24	9.79	10.39	10.34				14.34	10.17	
Haiti	17.66	19.25	17.39											18.10		
Jamaica	40.37	38.87	30.80	27.20	21.48	26.35								38.68		
Mexico	15.10	16.53	25.61	16.71	15.60	16.28	14.16	12.48	11.12	11.34	9.69			19.08	11.65	9.69
Nicaragua	29.25	34.60	41.50	60.00	61.89	57.43	51.34		46.94	30.65				35.12	38.80	
Panama	26.79	27.26	29.66	27.43	29.08	23.87	25.15	26.68	25.85	24.48	24.05	26.49		27.90	25.66	25.27
Paraguay	9.82	10.38	11.43	10.32	10.31	8.60	7.58	8.21	7.89	8.09	8.34			10.53	8.06	8.34
Peru	15.78	14.73	14.41	15.00	13.96	12.83	13.91	13.23	9.92	3.54	9.65	7.83	10.04	14.97	8.89	9.18
Trinidad & Tobago	29.51	28.88	48.52	45.85	43.03	41.61	35.50	34.29	31.17	26.79				35.63	30.75	
Uruguay	21.48	24.55	28.60	25.09	23.44	22.41	23.01	22.80	24.28	24.41	23.85	26.04		24.88	23.83	24.94
Venezuela	20.25	27.58	26.85	23.22	17.87	18.72	19.08	22.21	24.28		19.15	23.81	22.08	24.90	23.25	21.68

SOURCE: GOVERNMENT FINANCIAL STATISTICS YEARBOOK, VARIOUS YEARS

BEST AVAILABLE DOCUMENT

17/14

10

REAL PER CAPITA GOVERNMENT EXPENDITURE (NET OF INTEREST), INDEXED

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	Average 1980-82	Average 1987-89	Average 1990-92
Argentina	100.00	72.69	58.76	62.31	50.88	76.28	76.38	73.06	50.69	40.91				77.15	54.89	
Bolivia	100.00	97.55	61.37	86.97	151.93		63.52	58.28	67.82	72.09	79.93	82.88		86.31	66.06	81.39
Brazil	100.00	96.71	94.55	90.46	74.62	77.93	90.35	88.41	85.64	71.74	41.29			97.09	81.93	41.29
Chile	100.00	110.68	108.16	96.30	102.47	97.00	96.84	95.34	102.06	86.80	82.53	89.20	99.41	106.28	95.07	90.38
Colombia	100.00	104.20	117.11	111.51	113.32	104.63	103.11	104.03	106.03	107.50				107.11	105.86	
Costa Rica	100.00	82.28	64.41	81.41	84.49	79.87	93.02	98.91	88.27	97.25	93.97			82.22	94.81	93.97
Dominican Republic	100.00	97.02	76.30	79.12	76.01	78.72	86.18	101.03	114.36	84.96	63.81			91.10	100.11	63.81
Ecuador	100.00	116.39	110.48	96.42	96.82	112.82	118.03	106.06	100.62	79.41	78.19			111.95	95.36	78.19
El Salvador	100.00	94.74	87.48		82.20	88.99	56.08	87.52	51.40	47.19	45.94	47.63		84.07	52.04	46.79
Guatemala	100.00	110.00	92.05	76.31	60.80	52.10	47.84	57.23	61.27	61.53				100.68	60.01	
Haiti	100.00	104.71	83.26											97.65		
Jamaica	100.00	97.21	93.57	71.85	53.43	61.70								96.93		
Mexico	100.00	112.79	162.33	98.99	94.79	98.26	83.54	73.76	66.07	65.54	58.95			125.04	68.45	58.95
Nicaragua	100.00	127.70	155.39	225.37	211.20	179.10	153.78		119.69					127.70	119.69	
Panama	100.00	103.58	117.84	107.05	110.83	93.13	99.12	105.81	84.62	78.08	78.64	92.87		107.14	89.51	85.75
Paraguay	100.00	111.28	117.41	99.66	99.55	83.87	71.27	78.43	77.86	82.02	84.72			109.56	79.43	84.72
Peru	100.00	96.39	83.31	76.04	74.11	67.23	77.48	77.95	52.32	15.31	40.73			93.23	48.53	40.73
Trinidad & Tobago	100.00	101.33	172.39	145.33	124.54	112.80	92.89	84.91	74.18	60.62				124.58	73.24	
Uruguay	100.00	116.55	124.67	100.04	93.10	88.99	98.82	105.55	111.41	112.67	110.37	123.62		113.74	109.88	116.99
Venezuela	100.00	131.82	125.28	96.29	73.64	76.03	80.11	94.95	107.58		80.99	108.58	104.39	119.03	101.26	97.99

SOURCE: GOVERNMENT AND INTERNATIONAL STATISTICS YEARBOOKS, VARIOUS YEARS

175

BEST AVAILABLE DOCUMENT

INTEREST PAYMENTS AS A PERCENTAGE OF GOVERNMENT EXPENDITURE

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	Average 1980-198	Average 1987-89	Average 1990-92
Argentina	6.86	16.67	23.33	11.41	13.56	11.48	7.79	8.06	7.44	7.40				15.62	7.63	
Bolivia	10.73	6.60	58.64	0.00	1.45		5.04	9.24	6.55	6.48	5.76	6.38	7.13	25.33	7.42	6.42
Brazil	9.02	10.00	15.09	20.48	32.50	43.61	43.45	38.83	52.03	64.19	77.52	33.02		11.37	51.68	55.27
Chile	2.84	1.38	1.56	3.91	4.27	6.31	5.68	7.92	9.68	8.24	9.52	10.29	6.84	1.92	8.61	8.89
Colombia	4.21	4.65	5.38	4.99	4.09	5.57	7.32	10.44	10.62	9.99				4.75	10.35	
Costa Rica	8.70	7.59	8.92	8.07	9.48	8.51	8.95	8.36	10.03	9.65	12.10			8.40	9.35	12.10
Dominican Republic	5.78	6.34	6.44	8.06	5.71	2.68	0.96	0.71	0.45	5.57	4.00			6.19	2.24	4.00
Ecuador	9.38	7.82									22.45	26.22		8.60	22.45	26.22
El Salvador	2.95	6.08	9.35	8.42	9.06	6.61	10.51	8.42	8.07	8.66	7.80	10.75	17.64	6.12	8.38	12.06
Guatemala	3.88	4.08	5.83	6.72	8.18	7.32	13.75	12.37	13.06	11.78				4.59	12.41	
Haiti		2.47	4.35											3.41		
Jamaica				27.54	33.43	31.09										
Mexico	10.00	14.30	14.74	35.88	33.51	37.02	50.84	59.56	58.97	52.78	44.20			13.01	57.10	44.20
Nicaragua	7.87	9.90	11.07	5.62	3.30	3.93	2.06		0.16	0.02				9.61	0.09	
Panama	18.06	20.05	20.44	19.70	18.92	21.48	21.70	18.29	8.57	12.43	11.99	8.94		19.52	13.10	10.47
Paraguay	3.22	2.91	2.88	3.28	4.33	5.39	6.55	8.91	8.38	9.95	10.10			3.00	9.08	10.10
Peru	18.43	19.66	18.26	23.19	24.42	26.32	16.78	14.25	23.48	15.87	27.08	24.71	16.30	18.78	17.86	22.70
Trinidad & Tobago	2.81	3.66	1.70	2.24	3.21	3.62	6.72	7.27	11.08	15.95				2.72	11.43	
Uruguay	1.63	1.34	3.40	4.95	8.42	9.43	8.07	6.65	6.50	8.05	8.11	7.12		2.12	7.07	7.62
Venezuela	7.77	6.88	7.53	8.31	12.12	11.12	10.85	13.80	9.71	16.79	14.44			7.39	13.43	14.44

SOURCE: GOVERNMENT FINANCIAL STATISTICS YEARBOOK, VARIOUS YEARS

176

BEST AVAILABLE DOCUMENT

HEALTH EXPENDITURE AS A PERCENTAGE OF GOVERNMENT EXPENDITURE (NET OF INTEREST)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	Average 1980-198	Average 1987-89	Average 1990-92
Bolivia	13.29	7.58	4.74	2.45	1.47		1.99	3.96	8.22	7.04	2.46	3.51	8.82	8.53	8.40	4.93
Brazil	8.82	8.89	8.89	9.09	10.97	11.36	10.71	15.55	13.08	20.18	29.82	10.31		8.86	16.27	20.06
Chile	7.58	6.63	6.91	6.20	6.45	6.48	6.35	6.85	6.48	10.46	10.64	11.41	11.96	7.04	7.93	11.34
Colombia			4.07	4.50	4.69									4.07		
Costa Rica	31.43	32.22	35.99	24.47	27.08	25.06	21.25	22.00	27.46	30.14	30.34			33.21	26.53	30.34
Dominican Republic	9.87	10.36	11.39	11.47	10.91	9.23	8.63	9.69	10.25	11.95	14.61			10.54	10.63	14.61
Ecuador	8.65	8.44	7.68	8.18	8.26	7.31	7.28	11.09	9.78	14.74	14.96			8.26	11.87	14.96
El Salvador	9.24	8.94	7.88		8.93	6.28	8.38	8.06	7.77	8.09	8.47	8.64	8.91	8.68	7.97	8.67
Guatemala	10.25	7.86	5.30	5.45	7.18	6.19	7.71	9.54	11.43	11.22				7.81	10.73	
Mexico	2.67	2.17	1.53	1.88	2.27	2.20	2.57	2.86	3.26	3.23	3.43			2.12	3.12	3.43
Panama	15.51	16.56	16.51	19.78	19.77	21.08	19.98	20.59	21.75	20.49	23.34	23.91		16.20	20.95	23.62
Paraguay	3.71	4.65	3.78	4.35	6.11	5.74	3.23	3.28		4.96	4.81			4.05	4.11	4.81
Peru	6.86	7.50	6.34	7.04	7.60	8.04	7.22	0.01	8.67	19.22				6.90	9.30	
Uruguay	4.97	3.81	3.40	3.57	4.02	4.48	5.37	4.49	4.83	5.25	4.89	5.33		4.06	4.86	5.11
Venezuela	9.56	8.13	8.19	9.44	9.88	10.13	11.24							8.63		

SOURCE: GOVERNMENT FINANCIAL STATISTICS, VARIOUS YEARS

177

BEST AVAILABLE DOCUMENT

EDUCATION EXPENDITURE AS A PERCENTAGE OF GOVERNMENT EXPENDITURE (NET OF INTEREST)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	Average 1980-82	Average 1987-89	Average 1990-92
Argentina		10.00	3.70	8.33	10.98	6.83	6.54	7.52	10.07	10.71				9.35	9.43	
Bolivia	29.75	26.26	32.87		11.76		19.34	27.29	22.10	21.70	19.10	19.92	17.93	29.63	23.69	18.98
Brazil		2.22	5.56	4.55	4.65	5.25	5.91	7.82	8.46	14.86	13.97	5.60		3.89	10.38	9.78
Chile	14.93	14.93	14.98	14.31	13.64	14.07	13.71	13.02	11.16	13.33	13.58	13.84	14.25	14.95	12.51	13.89
Colombia			20.15	21.26	20.46									20.15		
Costa Rica	26.94	25.83	24.79	21.08	20.31	20.50	17.81	24.12	20.70	18.87	21.60			25.78	21.23	21.60
Dominican Republic	13.35	14.86	17.03	16.55	16.06	13.20	12.18	10.15	9.31	10.09	10.60			15.08	9.85	10.60
Ecuador	38.31	30.35	26.45	28.99	27.68	24.45	25.12	24.94	23.41	27.19	24.63			31.70	25.18	24.63
El Salvador	20.41	19.00	18.60		17.06	15.50	19.50	18.66	18.56	19.30	17.54	16.14	15.55	19.34	18.84	16.41
Guatemala	11.84	10.69	3.60	11.78	13.94	13.14	18.88	22.21	21.45	22.13				8.71	21.93	
Mexico	20.00	21.22	15.34	17.07	18.59	18.34	18.55	20.63	22.07	24.94	24.84			18.85	22.55	24.84
Panama	16.32	15.99	13.82	17.58	17.80	21.32	19.60	19.25	20.95	21.14	19.38	17.69		15.38	20.45	18.53
Paraguay	13.31	12.12	12.38	13.61	11.17	11.54	12.93	12.50		13.77	14.09			12.60	13.14	14.09
Peru	19.11	21.72	20.01	19.77	20.96	21.60	25.09		25.53	71.78				20.28	48.65	
Uruguay	8.98	7.78	7.97	6.88	6.43	7.09	7.80	8.44	8.46	8.30	8.02	7.29		8.24	8.40	7.65
Venezuela	21.60	17.23	16.96	21.57	21.78	22.17	21.94							18.60		

SOURCE: GOVERNMENT FINANCIAL STATISTICS, VARIOUS YEARS

178

BEST AVAILABLE DOCUMENT

REAL PER CAPITA HEALTH EXPENDITURE, INDEXED

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	Average 1980-82	Average 1987-89	Average 1990-91
Bolivia	100.00	55.60	21.87	16.03	16.81		9.52	43.65	41.92	38.16	14.80	21.89	59.16	41.24	18.35
Brazil	100.00	97.51	95.34	93.28	92.82	100.40	109.73	155.98	127.03	164.19	139.63		97.61	149.07	139.63
Chile	100.00	90.77	88.51	78.69	87.23	82.88	81.13	87.05	87.22	119.76	115.84	134.27	98.43	98.01	125.05
Costa Rica	100.00	84.31	73.73	63.38	72.78	63.67	62.87	69.24	77.10	93.24	90.69	105.25	86.01	79.86	97.97
Dominican Republic	100.00	101.86	88.09	91.97	84.06	73.67	75.35	99.17	118.78	102.90	94.49		96.65	106.95	94.49
Ecuador	100.00	113.53	106.03	91.09	92.40	95.30	99.23	135.96	113.67	135.23	135.16		106.52	128.29	135.16
El Salvador	100.00	91.58	74.54	76.45	79.39	60.49	50.86	50.17	43.21	41.32	42.08	44.52	88.71	44.90	43.30
Guatemala	100.00	84.38	47.61	40.57	42.57	31.43	36.00	53.25	68.30	67.35			77.33	62.97	
Mexico	100.00	91.83	93.35	69.95	80.80	80.91	80.49	79.03	80.75	79.39	75.70		95.06	79.72	75.70
Panama	100.00	110.54	125.44	136.47	141.22	126.54	127.65	140.46	118.65	103.12	118.28	143.11	111.99	120.74	130.70
Paraguay	100.00	139.49	119.70	125.02	154.10	129.49	61.96	68.86		103.87	109.85		119.73	89.31	109.85
Peru	100.00	105.26	76.89	78.00	82.05	78.71	81.48	0.07	66.05	42.313			94.05	36.33	
Uruguay	100.00	89.37	85.33	71.85	75.17	80.11	106.63	95.20	108.29	118.94	108.45	132.61	91.57	107.48	120.53
Venezuela	100.00	112.16	107.32	95.12	76.14	60.57	94.18						106.49		

SOURCE: GOVERNMENT AND INTERNATIONAL FINANCIAL STATISTICS YEARBOOKS, VARIOUS YEARS

179

BEST AVAILABLE DOCUMENT

REAL PER CAPITA EDUCATION EXPENDITURE, INDEXED

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	Average 1980-82	Average 1987-89	Average 1990-91
Argentina		100.00	70.29	71.43	76.86	71.65	68.75	75.63	70.24	60.25			85.15	68.71	
Bolivia	116.12	100.00	78.75	71.30	69.77		47.95	62.07	58.50	61.06	59.53	64.42	98.29	60.54	62.00
Brazil		100.00	244.42	191.32	161.35	190.37	248.37	321.58	337.18	496.17	268.34		172.21	384.98	268.34
Chile	90.34	100.00	98.04	83.36	84.54	82.59	80.32	75.92	68.93	70.03	67.84	74.72	96.13	71.62	71.28
Costa Rica	127.76	100.00	75.72	81.42	81.38	77.65	78.56	113.15	86.68	87.04	96.25	93.90	101.16	95.62	95.07
Dominican Republic	92.58	100.00	90.10	91.36	84.65	72.04	72.83	71.09	73.82	59.45	46.90		94.23	68.12	46.90
Ecuador		100.00	89.48	79.13	75.87	78.11	83.96	74.90	68.70	61.14	54.53		94.74	67.58	54.53
El Salvador	108.46	100.00	90.35	77.65	77.88	76.64	60.74	59.60	52.99	50.59	44.76	42.69	99.60	54.39	43.72
Guatemala	100.74	100.00	28.18	76.46	72.07	58.24	58.69	108.11	111.78	115.82			76.30	111.90	
Mexico	83.55	100.00	104.02	70.58	73.62	75.28	64.74	63.56	60.92	68.29	61.17		95.86	64.28	61.17
Panama	98.56	100.00	98.37	113.64	119.52	119.88	119.13	122.96	107.07	99.67	92.00	99.17	98.98	109.90	95.59
Paraguay	98.70	100.00	107.80	100.58	82.48	71.63	68.36	72.72		83.74	88.52		102.16	78.23	88.52
Peru	91.30	100.00	79.62	71.83	74.18	69.37	92.85		63.79	52.51			90.31	58.15	
Uruguay	99.10	100.00	109.64	75.89	66.01	69.64	85.10	88.34	103.99	103.16	97.62	99.49	102.91	101.83	98.55
Venezuela	95.07	100.00	93.51	91.43	70.61	74.19	77.35						96.19		

SOURCE: GOVERNMENT AND INTERNATIONAL FINANCIAL STATISTICS YEARBOOKS, VARIOUS YEARS

1981

BEST AVAILABLE DOCUMENT

INFANT MORTALITY RATES (PER 1000 LIVE BIRTHS)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	Average 1980-82	Average 1987-89	Average 1990-91
Argentina	38	37	36	35	34	34	33	32	31	31	30	25	37	31	28
Bahamas, The	30	22	33	22	23	27	27	28	21	22	28	27	29	24	28
Barbados	21	19	17	15	13	13	13	12	11	9	9	10	19	11	10
Bolivia	114	109	103	100	97	95	92	89	88	88	85	83	109	88	84
Brazil	74	73	71	69	68	66	65	63	62	61	59	58	73	62	59
Chile	33	29	24	23	22	20	19	18	18	18	17	17	29	18	17
Colombia	48	45	41	41	41	40	40	40	39	39	38	23	45	39	31
Costa Rica	20	18	19	19	19	18	17	16	16	15	15	14	19	16	14
Dominican Republic	71	69	68	67	65	64	62	61	59	58	56	54	69	59	55
Ecuador	69	67	65	64	62	61	59	58	57	56	55	47	67	57	51
Guatemala	81	79	77	75	73	72	70	68	66	64	62	60	79	66	61
Haiti	113	111	108	106	104	101	99	97	95	95	95	94	111	96	94
Honduras	70	69	67	65	64	62	57	51	51	50	50	49	69	51	50
Jamaica	21	20	18	18	18	17	17	17	17	16	16	15	20	17	15
Mexico	53	51	49	47	46	44	43	41	40	39	37	36	51	40	37
Nicaragua	80	88	86	83	80	77	74	71	67	64	60	56	88	67	58
Panama	28	27	26	25	25	24	24	23	23	22	22	21	27	23	21
Paraguay	53	53	53	52	51	51	50	49	49	48	48	35	53	49	41
Peru	81	79	77	76	74	70	65	61	58	55	54	53	79	58	54
Trinidad and Tobago	34	32	31	30	28	27	25	24	23	22	20	19	32	23	20
Uruguay	37	35	33	31	29	28	26	24	23	22	22	21	35	23	21
Venezuela	41	40	39	38	38	37	37	36	35	35	34	34	40	35	34

D-13

SOURCE: WORLD BANK SOCIAL INDICATORS OF DEVELOPMENT, DATA ON DISKETTE

181

BEST AVAILABLE DOCUMENT

CHILD MORTALITY ESTIMATES (Birth to Age Five)

	United Nations Data 1975-80	Hill and Peibly Data 1975-80	United Nations Data 1980-85	Hill and Peibly Data 1980-85	United Nations Data 1985-90	World Bank Data 1987-89	World Bank Data 1990-91
Argentina	49	28	42	42	38	38	33
Bolivia	221		197		171	124	120
Brazil	107	107	98	68	66	74	68
Chile	52	52	28	28	24	21	20
Colombia	83	64	75	42	68	46	35
Costa Rica	35		24		22	21	18
Dominican Rep.	111	98	94	88	82	77	70
Ecuador	116	116	96	90	87	68	62
El Salvador	114		98		84	76	59
Guatemala	139	139	118	118	99	90	82
Guyana	63		45		37		
Haiti	207	207	189	189	170	139	145
Honduras	147		123		106	83	69
Jamaica	32		27		23	20	19
Mexico	87	87	77	77	68	49	45
Nicaragua	140		115		93	80	70
Panama	47		37		33	27	26
Paraguay	74		67		61	40	40
Peru	156	147	143	112	122	92	77
T&T	32	32	28	28	23	33	27
Uruguay	49	49	34	34	30	28	24
Venezuela	56		47		43	42	40

SOURCES: UN DATA, HILL AND PEBLY, 1989, AND WORLD BANK SOCIAL INDICATORS, DATA ON DISKETTE

BEST AVAILABLE DOCUMENT

182

LIFE EXPECTANCY RATES

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	Average 1980-82	Average 1987-89	Average 1990-91
Argentina	69.3	69.5	69.7	69.9	70	70.2	70.4	70.6	70.7	70.9	71.1	71.2	69.4	70.6	71.1
Belize	64.1	65.6	65.1	65.5	65.8	66.1	66.4	66.7	67.1	67.5	67.9	68.3	58.8	66.7	67.9
Bolivia	52.7	53.3	53.9	54.5	55.0	55.6	56.2	56.7	57.3	57.9	58.5	59.0	54.5	56.7	58.5
Brazil	62.8	63.1	63.4	63.7	64.0	64.3	64.6	64.9	65.2	65.4	65.7	66.0	56.6	64.9	65.7
Chile	69.5	70.2	71.0	71.1	71.2	71.3	71.4	71.5	71.6	71.7	71.8	71.9	61.9	71.5	71.8
Colombia	65.9	66.5	67.2	67.4	67.6	67.8	68.0	68.2	68.4	68.7	68.9	69.1	61.7	68.2	68.9
Costa Rica	72.7	73.2	73.8	74.1	74.4	74.7	75.0	75.3	75.5	75.7	75.9	76.1	68.7	75.3	75.9
Dominica			71.5	71.6	71.7	71.8	71.9	72	72.1	72.2	72.3	72.4	46.4	72.0	72.3
Dominican Rep.	63.3	63.7	64.1	64.5	64.8	65.2	65.6	66	66.3	66.6	66.9	67.2	56.3	66.0	66.9
Ecuador	63.1	63.7	64.3	64.5	64.8	65.0	65.2	65.5	65.7	65.9	66.1	66.3	59.7	65.5	66.1
El Salvador	57.3	57.2	57.2	58.2	59.2	60.3	61.3	62.4	63.2	64.0	64.7	65.5	54.6	62.3	64.7
Guatemala	58.0	58.5	59.0	59.6	60.2	60.8	61.4	62.0	62.6	63.1	63.7	64.2	55.2	62.0	63.7
Haiti	51.9	52.3	52.7	53.0	53.2	53.5	53.7	54.0	54.1	54.2	54.4	54.5	52.1	53.9	54.4
Honduras	60.2	61.1	61.9	62.3	62.8	63.2	63.6	64	64.3	64.7	65.1	65.4	54.6	64.0	65.1
Jamaica	70.8	71.7	71.3	71.6	71.8	72.1	72.3	72.5	72.8	73.0	73.2	73.4	62.1	72.5	73.2
Mexico	66.5	66.8	67.1	67.5	67.8	68.1	68.5	68.8	69.1	69.4	69.7	70.0	60.4	68.8	69.7
Nicaragua	58.6	59.0	59.3	59.9	60.6	61.2	61.8	62.4	63.3	64.1	64.9	65.8	52.5	62.5	64.9
Panama	70.3	70.6	71.0	71.2	71.4	71.6	71.9	72.1	72.2	72.4	72.5	72.7	64.1	72.1	72.5
Paraguay	66.3	66.4	66.4	66.5	66.6	66.7	66.8	66.9	67.0	67.0	67.1	67.2	66.4	66.9	67.1
Peru	57.9	58.3	58.6	59.2	59.7	60.3	60.9	61.4	62.0	62.7	63.3	63.9	51.0	61.4	63.3
Trinidad & Tobago	68.0	68.3	68.6	68.9	69.2	69.5	69.8	70.1	70.4	70.6	70.9	71.1	63.6	70.1	70.9
Uruguay	70.4	70.7	70.9	71.2	71.4	71.6	71.8	72.0	72.3	72.7	73.0	73.3	64.3	72.0	73.0
Venezuela	68.5	68.7	69.0	69.1	69.3	69.4	69.5	69.7	69.8	69.9	70.0	70.2	61.3	69.7	70.0

D-15

SOURCE: WORLD BANK WORLD TABLES, VARIOUS YEARS

183

BEST AVAILABLE DOCUMENT

D-16
VACCINATION COVERAGE

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	Average 1980-82	Average 1987-89	Average 1990-92
Argentina																
BCG	62	63	64	61	78	89	89	91		93						
DPT3	41	46	61	57	66	63	67	75	81	74	85	84	78	63	92	
OPV3	91	38	94	73	84	69	85		70	81	89	88	83	49	68	82
Measles	53	73	95	69	66	67	87	81	68	78	95	99	89	74	76	87
AVG	63	55	70	65	69	72	82	82	66	82	90	90	83	75	76	94
Bolivia																
BCG	31	30	31	27	23	24	15	31		70				31	35	
DPT3	11	13	12	10	6	33	29	24	39	40	41	58	77	12	33	59
OPV3	14	15	15	10	57	30	31	28	40	50	50	67	84	15	36	67
Measles	13	17	5	13	20	21	17	33	44	70	53	73	80	12	37	68
AVG	17	19	16	15	27	27	23	29	41	58	48	66	80	17	36	65
Brazil																
BCG	58	62	57	99	75	58	56	68		66	78	80		58	62	79
DPT /	40	47	51	61	67	62	52	57	54	51	81	75	69	46	55	75
OPV /	99	99	99	99	89	86	89	90	89	98	93	98	62	99	90	84
Measles	56	73	68	67	80	63	55	55	60	55	78	83	93	66	58	65
AVG	63	70	69	82	78	67	63	68	98	67	83	84	75	67	68	80
Chile																
BCG	98	100	98	87	96	92	99	97		98				98	97	
DPT3	94	97	100	83	94	91	82	93	96	94	99	91	91	97	93	94
OPV3	77	98	100	94	98	89	86	95	58	94	99	91	91	91	92	94
Measles	87	93	95	92	100	92	91	92	95	89	98	93	90	92	92	94
AVG	89	97	98	89	97	91	92	94	98	94	99	92	91	94	93	94
Colombia																
BCG	45	57	65	79	62		69	80		90	95	95		56	80	95
DPT3	18	20	28	42	54	61	57	58	74	75	87	84	77	21	65	83
OPV3	16	22	27	44	60	62	65	82	84	82	93	91	84	22	79	89
Measles	13	28	27	43	49	53	56	59	74	73	62	75	74	22	63	77
AVG	23	31	38	52	56	59	62	70	81	83	89	68	78	30	71	85
Costa Rica																
BCG	80	81	81	81	85	85	61	81						81	76	
DPT3	86	83	81	84	71	75	94	91	87	88	95	95	90	83	87	93
OPV3	88	85	78	84	81	75	94	89	86	91	95	95	90	83	87	93
Measles	60	71	69	82	78	81	55	90	97	88	90	90	84	67	82	88
AVG	78	80	77	83	78	79	78	88	90	89	93	93	88	78	84	92
Dom. Republic																
BCG	12	34	52	41	43	51				40				33	46	
DPT3	35	27	28	24	20	18		80	80	46	69	47	48	30	56	55
OPV3	46	42	37	22	99	11		79	79	75	90	64	63	42	61	72
Measles	29	17	24	23	19	24		71	71	31	93	69	75	23	49	80
AVG	31	30	35	28	45	26		77	77	48	86	60	62	32	57	69
Ecuador																
BCG	75	82	99	84	99	99	93	85		91				85	92	
DPT3	10	28	35	31	48	41	43	51	54	55	88	59	83	24	49	70
OPV3	19	19	36	32	36	39	43	51	57	63	67	62	83	25	51	71
Measles	24	31	44	34	54	54	49	46	52	56	61	54	60	33	51	60
AVG	32	40	54	45	59	58	57	58	54	66	65	58	77	42	59	67
El Salvador																
BCG	56	47	48	48	47	50	51	55		62				50	55	
DPT /	43	42	42	21	21	54	68	53	61	64	78	60	65	42	60	67
OPV3	42	38	42	20	44	54	70	57	62	72	76	60	85	41	63	67
Measles	45	44	43	46	41	71	51	48	63	73	75	53	62	44	61	63
AVG	47	43	43	34	38	57	60	63	62	68	78	58	64	44	60	68
Guatemala																
BCG	36	29	28	24	33	30	7	34						31	24	
DPT /	43	42	45	43	48	21	33	18	47	51	66	63	65	43	34	65
OPV3	42	42	45	43	47	21	36	18	55	57	74	69	69	43	37	71
Measles	23	8	12	9	24	23	47	24	54	52	68	49	58	14	40	58
AVG	36	30	33	30	38	24	31	23	52	53	69	60	64	33	37	65
Guyana																
BCG	68		78	73	49	98	78	69		76				73	80	
DPT3	35	45	53	58	70	75	64	67	64	77				44	69	
OPV3	42	37	73	59	41	77	67	77	69	79				51	74	
Measles			68	44	56	40	42	52	55	69				68	52	
AVG	48	41	68	58	54	73	62	63	63	75				52	68	
Haiti																
BCG	19	60	58	62	71	57		45		40				46	47	
DPT3	3	14	13	9	14	19		28	49	50	41	41	24	10	37	35
OPV3	8	3	7	6	12	19		28	48	50	40	40	27	6	36	36
Measles					8	21		23	59	31	31	31	24		34	29
AVG	10	26	26	26	26	29		31	52	43	37	37	25	21	39	33

D-17
VACCINATION COVERAGE

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	Average 1980-82	Average 1987-89	Average 1990-92
Honduras																
BCG	28	48	57	55	37	65	72	66		75				44	70	
DPT3	31	38	53	52	41	59	63	58	74	77	84	94	93	41	66	90
OPV3	31	37	53	51	84	58	63	61	70	83	87	93	95	40	67	92
Measles	35	38	55	49	44	53	60	57	78	86	90	86	89	43	66	88
AVG	31	40	55	52	52	58	65	61	73	80	87	91	92	42	67	90
Jamaica																
BCG	38		27	56	48	51	73	92		99				33	79	
DPT3	34	39	34	58	57	60	74	81	82	85	88	83	84	36	76	84
OPV3	34	37	68	57	56	58	74	82	83	84	87	86	74	48	76	82
Measles			12	15	60	64	36	62	68	71	74	68	63	12	60	68
AVG	35	38	35	47	55	58	64	79	78	85	82	79	74	36	73	78
Mexico																
BCG	48	41	50	52	47	16	54	71		80	70	87		46	55	79
DPT3	41	41	38	41	52	40	34	62	60	65	66	64	91	40	52	74
OPV3	91	85	85	88	91	67	96	97	95	96	96	95	92	87	90	94
Measles	35	33	37	23	21	64	60	54	70	85	78	78	91	35	67	82
AVG	54	50	53	51	53	47	61	71	75	82	78	81	91	52	67	83
Nicaragua																
BCG	33	65	82	80	88	97	99	93		90				60	95	
DPT3	15	23	28	22	30	35	55	43	51	64	65	71	73	21	50	70
OPV3	21	52	50	75	73	70	89	85	83	82	88	83	88	41	82	85
Measles	15	20	40	38	42	49	61	14	55	61	82	54	72	25	54	69
AVG	21	40	50	54	58	63	76	66	63	74	78	69	77	37	68	75
Panama																
BCG	68	77	83	81	77	94	91	89		90				76	91	
DPT3	47	49	60	61	59	73	70	73	75	71	86	82	82	52	72	83
OPV3	45	50	61	60	70	71	71	74	73	71	86	82	83	52	72	84
Measles	47	53	64	60	65	83	73	78	75	75	99	80	71	55	77	83
AVG	52	57	67	66	66	80	78	79	74	77	90	81	79	59	77	83
Paraguay																
BCG	31	42	47	55	80	99	51	66		58				40	69	
DPT3	17	28	34	45	67	54	52	58	57	67	78	79	85	26	58	81
OPV3	14	26	39	47	59	97	99	93	82	71	78	79	87	26	88	61
Measles	19	18	26	37	62	46	46	56	63	58	69	74	86	20	54	76
AVG	20	28	37	46	67	74	62	66	67	64	74	77	86	28	67	79
Peru																
BCG	57	63	65	61	63	70	54	61		61				62	62	
DPT3	14	18	21	23	28	48	50	43	66	58	72	71	80	16	53	74
OPV3	16	18	21	22	26	47	50	45	67	59	73	74	81	18	54	76
Measles	21	24	28	28	35	53	41	35	57	52	64	59	80	24	48	68
AVG	27	31	34	34	38	55	49	46	63	58	70	69	80	31	54	73
ST																
BCG																
DPT3	24	52	54	60	65	75	70	79	80	77	82	73	82	43	76	79
OPV3	38	55	59	61	66	74	71	80	82	77	87	74	81	51	77	81
Measles					10	32	42	68	72	59	70	81	93	55	81	81
AVG	31	54	57	61	47	60	61	78	78	71	80	78	85	47	68	80
Uruguay																
BCG	56	76	76	99	93	92	92	98		97				69	95	
DPT3	53	57	67	73	62	63	70	70	82	82	88	88	93	59	73	90
OPV3	59	58	72	77	83	58	83	70	82	82	88	88	93	63	75	90
Measles	50	65	52	65	68	59	82	99	72	75	82	62	83	66	77	86
AVG	55	72	67	79	78	68	82	84	79	84	86	86	93	64	79	88
Venezuela																
BCG	72	77	78	82	92		86			68				75	77	
DPT3	56	54	53	56	33	49	58	54	51	55	63	54	68	54	53	61
OPV3	95	75	76	77	59	59	67	64	68	67	72	63	72	82	65	69
Measles	50	43	45	42	41	56	48	57	49	49	62	61	61	46	52	61
AVG	68	62	62	65	56	65	65	58	56	60	68	59	68	64	58	64
WEIGHTED AVERAGES																
BCG	49	51	60	63	63	60	59	62		66	11	12	0	53	62	8
DPT3	36	41	45	48	49	53	54	60	66	67	72	69	73	41	60	71
OPV3	47	47	56	55	63	59	65	68	74	76	77	75	75	50	68	76
Measles	31	35	41	40	47	53	50	58	66	65	73	68	72	36	59	71
AVG	40	44	51	51	56	58	57	62	69	68	58	58	55	45	62	58

Only two doses administered

WORLD HEALTH ORGANIZATION EXPANDED PROGRAM ON IMMUNIZATION AND UNICEF

BEST AVAILABLE DOCUMENT

185

NET PRIMARY SCHOOL ENROLLMENT RATIOS

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	Average 1980-82	Average 1987-89	Average 1990-91
Bolivia	76				81		79	83			81		76	83	81
Brazil	81	79	82	83	83	82		84	84		88		81	84	87
Chile			98	92	92				89	88	86	87	98	89	87
Colombia			78		76	72	73		70	70		74	78	70	74
Costa Rica	89	91	89			84	85	85		87	87	87	90	86	87
Dominican Rep		70	71	73	72	70	73						71		
El Salvador		56		64	64			72	73	71			56	72	
Guatemala	58	61	58	62									59		
Haiti	38	38	42	39	51	55	47	27	27	26	26		39	27	26
Honduras	74		85	88	87		91						80		93
Jamaica	96		99	94		94	99	93	98	100	100		98	97	100
Mexico				97	97	100	100	100	100	100	100	100			
Nicaragua	73	75	73	73	72	76	75	76	76	73	76	78		100	100
Panama	89	88	87	87	87	89	89	91	90	91			74	75	77
Paraguay	87		90			87	87	88	90	93	95	97	88	91	
Peru	87	93	92			97			95				89	90	96
T& T	89	90			91	92	86	93	92	90	90		91	95	
Uruguay				88		88	92	91				91	90	92	90
Venezuela	82	87	88	86	86	82	89	89	85	86	89	91	86	87	90

D-18

SOURCE: UNESCO YEARBOOK, VARIOUS YEARS

186

BEST AVAILABLE DOCUMENT

PRIMARY SCHOOL PUPIL-TEACHER RATIO

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	Average 1980-82	Average 1987-89	1990
Argentina		20.2	20.3	20.3	20.3	20.0	20.0	19.5	19.3			20.3	19.4	
Bahamas, The	28.0	28.4	21.0	19.5	21.1	18.6	21.0					25.2		
Barbados	26.6	20.9	20.3	23.5	21.2				18.4	17.8		22.6	18.1	
Bolivia	20.0	22.7			25.0		25.4	27.0	24.7	25.3	24.7	21.4	25.7	24.7
Brazil	25.6	23.8	24.5	25.4	24.4	23.8	23.6	23.0	24.0	23.0	23.0	24.6	23.3	23.0
Chile			33.3					29.1		29.4		33.3	29.3	
Colombia	30.6	30.6	29.8	29.7	29.6	30.4	29.5	29.8	29.8	29.9		30.3	29.8	
Costa Rica	27.7	33.0	31.6	31.9	33.8	31.5	32.3	31.5	31.9	32.3	31.9	30.8	31.9	31.9
Dominican Republic		63.8	46.3	54.4	43.4	43.6	41.5	47.4		47.2		55.1	47.3	
Ecuador	36.2	35.0	36.1	33.3	32.3	32.4	32.2	31.2				35.8	31.2	
El Salvador	48.0	40.7	45.4	48.3	41.8			44.5	43.8	40.1		44.7	42.8	
Guatemala	33.8	36.6	34.7	36.0	36.3	36.5	35.5	34.9				35.0	34.9	
Haiti	44.1	44.1	42.6	42.4	40.3	37.6	36.2	24.6	24.1	22.3	21.2	43.6	23.7	21.2
Honduras	36.7	39.0	37.5	37.1	38.5		39.1					37.7		
Jamaica	41.4		33.8	34.3	34.6	35.3	36.2	33.8	33.1	33.7	36.6	37.6	33.5	36.6
Mexico	39.1	37.4	36.6	35.9	34.8	33.6	32.8	31.9	31.3	31.1	30.5	37.7	31.4	30.5
Nicaragua	35.5		36.1	35.0	34.4	33.3	32.4	32.2	33.7	31.8	33.3	35.8	32.6	33.3
Panama	27.3	26.6	26.2	26.0	25.6	25.5	22.3	22.5	23.0	19.7		26.7	21.8	
Paraguay	27.4	26.8	26.0	25.5	25.3	25.1	24.8	25.1	25.4	25.0	24.7	26.8	25.1	24.7
Peru	37.5	37.4	38.2	34.9	34.4	34.8	33.2	31.4	30.6	28.8	28.1	37.7	30.3	28.1
Trinidad and Tobago	23.9	23.0	22.6	22.7	22.2	22.1	23.0	23.8	24.7	27.7	26.0	23.2	25.4	26.0
Uruguay	22.4	21.5	21.6	20.6	23.3	25.1	21.9	28.9	23.2			21.8	26.0	
Venezuela	34.1	33.5	33.0	33.7	33.3	32.7	32.7	23.5	22.7		22.9	33.5	23.1	22.9

D-19

SOURCE: WORLD BANK SOCIAL INDICATORS OF DEVELOPMENT, DATA ON DISKETTE

187

BEST AVAILABLE DOCUMENT

ILLITERACY RATES (Total x % of Population age 15+)

	1980	1985	1990	% Change 1980-85	% Change 1985-90	% Change 1980-90
Argentina	6.1	5.2	4.7	-0.15	-0.10	-0.23
Bolivia		27.5	22.5		-0.18	
Brazil	25.5	21.5	18.9	-0.16	-0.12	-0.26
Chile (2)	8.9	7.8	6.6	-0.12	-0.15	-0.26
Colombia (1)	14.8	15.3	13.3	0.03	-0.13	-0.10
Costa Rica		8.2	7.2		-0.12	
Dominican Republic		19.6	16.7		-0.15	
Ecuador (2)	19.8	17.0	14.2	-0.14	-0.16	-0.28
El Salvador	32.7	31.2	27.0	-0.05	-0.13	-0.17
Guatemala		48.1	44.9		-0.07	
Haiti (2)	65.2	52.1	47.0	-0.20	-0.10	-0.28
Honduras		32.0	28.9		-0.16	
Jamaica		2.0	1.6		-0.20	
Mexico	17.3	15.3	12.7	-0.12	-0.17	-0.27
Nicaragua	13.0			-1.00		-1.00
Panama	14.4	13.6	11.9	-0.06	-0.13	-0.17
Paraguay (2)	12.5	11.7	9.9	-0.06	-0.15	-0.21
Peru (1)	18.1	18.0	14.9	-0.01	-0.17	-0.18
Trinidad and Tobago	5.1	3.9		-0.24	-1.00	-1.00
Uruguay		4.7	3.8		-0.19	
Venezuela (2)	15.3	14.3	11.9	-0.07	-0.17	-0.22

1/ 1981 INSTEAD OF 1980

2/ 1982 INSTEAD OF 1980

SOURCE: WORLD BANK SOCIAL INDICATORS OF DEVELOPMENT, DATA ON DISKETTE

198

BEST AVAILABLE DOCUMENT!

D-20

ANNEX E

**DEFINITIONS OF ADJUSTMENT LENDING
SUB-SAHARAN AFRICA**

DEFINITIONS OF ADJUSTMENT LENDING

WORLD BANK 1994 APPROACH

This classification is based on an aggregate index that summarizes changes in fiscal, monetary, and exchange rate policy between 1981-86 and 1987-91. Scores from -3 to +3 were given to each country based on the magnitude of change in each indicator, with a higher score indicating more policy improvement.

- The index scores for fiscal policy were based on the change in the budget deficit, excluding grants. As a proxy for the quality of the fiscal adjustment, changes in domestic tax revenue were accounted for: the index score was increased or decreased by one point if revenues as a share of GDP rose or fell, respectively, by more than 3 percent.
- The index scores for monetary policy were based on the average of changes in seigniorage and inflation. Real interest rate changes were ignored as they are very similar to changes in inflation.
- The index scores for exchange rate policy were based on the change in the real effective exchange rate (for fixed exchange rate countries), and on simple average of the change in the real effective exchange rate and the change in the parallel market exchange rate premium (for floating exchange rate countries).

Individual scores for each of the 3 indicators were averaged to yield a composite score for overall change in macroeconomic policy. The countries were then divided into three groups based on this composite score:

Large Policy Improvement = scores above or equal to one

Small Policy Improvement = scores below one but greater than zero

Deteriorating Policy = scores below zero

USAID APPROACH

This classification scheme is based on an opinion survey of Agency for International Development staff, who were asked to score countries they work on according to their degree of deviation from efficient, non-interventionist policies. The resulting policy area scores are weighted and given an overall score of up to 100. Policy areas taken into specific consideration include: trade and foreign exchange, fiscal policy, macroeconomic stabilization policy, real interest rates, and the business and employment environments. The results present a "policy snapshot" based on data from 1991 and 1992.

Strong Policy Environment = countries scoring in the 75-100 range on the composite index

Medium Policy Environment = countries scoring in the 5-75 range

Weak Policy Environment = countries scoring under 50

190

Country Categorization

World Bank 1994 Classification

Large Improvement

Ghana
Tanzania
The Gambia
Burkina Faso
Nigeria
Zimbabwe

Small Improvement

Madagascar
Malawi
Burundi
Kenya
Mali
Mauritania
Senegal
Niger
Uganda

Deterioration

Benin
CAR
Rwanda
Sierra Leone
Togo
Zambia
Mozambique
Congo
Cote d'Ivoire
Cameroon
Gabon

USAID Classification:

Strong Policy

Botswana
Gambia
Ghana
Malawi
Mauritius

Medium Policy

Benin
Burundi
Cameroon
Cape Verde
Chad
Côte d'Ivoire
Guinea
Guinea Bissau
Kenya
Lesotho
Madagascar
Mali
Namibia
Nigeria
Senegal
Swaziland
Tanzania
Togo
Uganda

Weak Policy

Angola
Burkina Faso
Mauritania
Mozambique
Niger
Rwanda
Zaire
Zambia
Zimbabwe

ANNEX F
STATISTICAL TABLES
SUB-SAHARAN AFRICA

REAL PER CAPITA PRIVATE CONSUMPTION, INDEXED

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	Average 1980-82	Average 1987-89	Average 1990-92
BENIN (1)	100.00	106.00	112.40	88.70	92.70	95.10	87.50	81.30	85.70	83.20	84.70			106.13	83.40	84.70
BOTSWANA	100.00	102.89	116.34	104.80	107.79	107.98	97.22	86.39	89.93	75.09				106.44	87.14	
BURKINA (1)	100.00	101.60	101.20	99.50	90.80	93.30	98.40	97.60	99.80	96.50	95.60			100.93	97.97	95.60
BURUNDI	100.00	103.28	100.41	96.69	95.82	104.78	101.03	102.86	103.80	103.36	118.78	119.48	116.08	101.23	103.37	118.11
CAMEROON	100.00	103.82	112.42	108.08	108.29	115.27	123.46	124.65	106.35	95.77	101.93			105.41	108.93	101.93
CAPE VERDE	100.00	105.23	101.92	103.81	109.91	118.49	116.08	118.49	131.00					102.38	124.74	
CAR (1)	100.00	85.40	92.50	78.10	83.40	84.20	90.60	87.70	87.70	86.80	86.60			92.63	87.40	86.60
CONGO (1)	100.00	115.40	164.00	131.30	136.00	136.50	123.10	120.70	117.30	115.60	110.40			126.47	117.87	110.40
COTE D'IVOIRE (1)	100.00	114.60	108.90	104.80	108.90	102.60	114.30	102.10	84.00	82.30	67.50			107.83	89.47	67.50
ETHIOPIA	100.00	102.03	102.17	102.51	94.18	85.87	89.90	94.01	87.38	85.47	82.67	74.43		100.73	88.95	78.55
GABON (1)	100.00	103.00	107.20	109.90	83.30	83.40	123.80	86.50	79.00					103.40	82.75	
GAMBIA (1)	100.00	81.70	69.80	55.50	92.10	90.40	81.30	62.90	84.10	71.00	71.80			77.17	72.87	71.80
GHANA	100.00	99.40	91.40	89.63	83.98	82.81	83.13	85.55	83.05	89.28	91.26			96.93	85.96	91.26
GUINEA-BISSAU (1)	100.00	120.70	132.70	123.80	135.50	139.59	133.00	139.70	145.30	146.20	150.00			117.80	143.73	150.00
KENYA	100.00	100.52	103.18	93.77	91.94	88.70	94.15	95.73	97.34	101.56				101.23	98.21	
LESOTHO	100.00	104.11	109.13	115.56	119.48	107.08	101.11	99.28	110.75	108.05	97.39	111.89		104.41	106.02	104.64
LIBERIA	100.00	128.30	110.82	118.08	107.77	105.94	101.10	114.30	107.13					113.04	110.71	
MADAGASCAR	100.00	90.14	88.64	88.35	90.51	98.05	87.60	88.59	85.20	83.63	70.77	92.59		92.99	85.14	81.88
MALAWI	100.00	94.71	94.96	93.91	103.15	104.30	103.29	98.44	108.84	116.30	112.32	121.69		96.56	107.89	117.01
MALI (1)	100.00	101.10	104.40	101.80	100.50	106.50	107.70	102.30	100.50	103.00	99.50			101.83	101.93	99.50
MAURITANIA (1)	100.00	107.30	117.10	144.20	126.70	120.00	118.20	117.10	123.70	131.70	135.50			108.13	124.17	135.50
MAURITIUS (1)	100.00	97.20	94.00	94.80	98.30	102.70	108.60	129.10	145.80	146.80	152.10			97.07	140.60	152.10
MOZAMBIQUE (1)	100.00	96.90	98.90	88.40	87.00	80.00	79.40	83.10	82.10	62.20	78.70			98.60	82.47	78.70
NIGER (1)	100.00	97.80	100.40	92.70	83.60	80.90	82.90	74.40	72.10	66.40				99.40	70.97	
NIGERIA	100.00	97.05	104.10	98.66	89.87	95.16	98.49	88.73	101.99	86.93	82.68	66.14		100.38	92.52	74.41
RWANDA	100.00	93.22	97.42	101.82	91.98	82.24	82.48	90.42	88.28	87.76	86.27	80.19		96.88	88.81	83.23
SAO TOME (1)	100.00	63.60	79.40	63.80	61.60	65.10	59.90	58.40	55.10	66.60				81.00	60.03	
SENEGAL (1)	100.00	106.10	107.40	104.60	98.70	105.10	101.10	101.70	102.30	98.20	97.20			104.50	100.73	97.20
SEYCHELLES	100.00	112.11	128.68	139.24	135.05	121.48	114.21	137.82	138.88	143.63	132.78			113.59	140.14	132.78
SIERRA LEONE	100.00	103.36	100.18	95.96	88.78	86.03	81.65	83.07	87.59	87.09		79.94		101.18	85.92	79.94
SOMALIA (1)	100.00	104.00	118.90	108.00	107.30	101.80	100.60	95.10	90.80	95.60				107.63	93.83	
SUDAN	100.00	107.40	115.20	127.00	120.00	116.80	103.00	103.50	101.50	106.30	93.60			107.53	105.43	93.60
SWAZILAND	100.00	109.10	106.34	111.26	108.41	110.60	90.23							105.15		
TANZANIA	100.00	89.28	88.47	90.20	89.28	88.73	91.54	90.27	110.61	95.41	87.24	84.36		92.58	98.77	85.80
TOGO (1)	100.00	106.60	111.20	100.70	111.90	108.10	121.50	111.90	123.10	121.40	126.30			105.93	118.80	126.30
ZAIRE	100.00	94.52	92.12	91.23	92.18	84.22	82.30	89.81	83.68	79.82	81.71			95.55	84.44	81.71
ZAMBIA (1)	100.00	103.00	92.00	90.00	85.70	93.70	89.40	105.40	112.60	98.30	98.00			98.33	105.43	98.00
ZIMBABWE (1)	100.00	113.00	107.10	120.20	87.50	86.00	83.60	74.20	79.00	85.20	83.60			106.70	79.47	83.60

L-5

SOURCES:

1/ SEPE GELDIN, 1992

ALL OTHERS ARE FROM THE INTERNATIONAL FINANCIAL STATISTICS YEARBOOK, VARIOUS YEARS

BEST AVAILABLE DOCUMENT

193

REAL MINIMUM WAGES, INDEXED

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	Average 1980-82	Average 1986-89
Benin	100.0	92.3	83.1	116.2	106.1	94.2	82.0	88.7	85.6	85.9	91.8	88.0
Burkina	100.0	88.2	102.9	98.0	92.8	88.9	90.0	83.2	92.1	96.0	97.0	90.3
Cameroon	100.0	7.0	104.0	107.0	111.0	102.0	108.0				70.3	108.0
Central African Republic	100.0	87.3	72.0	65.8	64.8	59.4	55.3	56.8	55.9	54.0	86.4	55.5
Congo	100.0	85.0	76.0	77.0	64.0	59.0					87.0	
Chad	100.0	92.5	84.7	84.7	68.3	71.7	86.6	89.2	81.7	79.9	92.4	84.3
Cote d'Ivoire	100.0	101.1	104.1	99.1	88.3	83.8	84.0	87.2	87.0	88.7	101.7	86.7
Ethiopia	100.0	94.0	89.0	89.0	82.0	73.0	77.0				94.3	77.0
Gabon	100.0	92.0	99.0	89.0	101.0	101.0	96.0				97.0	98.0
Gambia	100.0	94.0	98.0	89.0	73.0	65.0					97.3	
Ghana	100.0	130.9	102.6	95.9	99.1	164.4	149.2	173.9	130.0	119.6	111.2	143.2
Guinea	100.0	91.0	87.0	79.0	71.0	64.0					92.7	
Kenya	100.0	88.8	76.6	64.1	61.4	68.5	63.0	65.4	66.8		88.5	65.1
Liberia	100.0	93.0	88.0	85.0	84.0	85.0	83.0				93.7	83.0
Madagascar	100.0	90.0	81.0	68.0	38.0	65.0	65.0				90.3	65.0
Malawi	100.0	139.0	147.0	120.0	108.0	128.0	109.0				128.7	109.0
Mali	100.0	119.4	132.4	124.0	111.8	108.3	154.7	145.3	138.7	139.8	117.3	144.6
Mauritania	100.0	84.0	93.0	92.0	86.0		64.4	60.2	58.8	53.5	92.3	59.2
Mauritius	100.0	89.0	84.0	81.0	79.0	77.0	76.0				91.0	76.0
Nigeria	100.0	148.0	138.0	115.0	81.0	79.0					128.7	
Niger	100.0	101.1	91.3	85.5	75.4	76.6	82.0	79.2	77.9	80.0	97.5	79.8
Rwanda	100.0	94.0	83.0	78.0	74.0	73.0					92.3	
Senegal	100.0	99.5	98.1	103.9	86.3	88.0	82.0	79.9	78.3	76.9	89.2	79.3
Rwanda	100.0	94.0	83.0	78.0	74.0	73.0					92.3	
Somalia	100.0	90.0	79.0	58.0	30.0	22.0	16.0				89.7	18.0
Sudan	100.0	80.0	64.0	49.0	47.0	45.0					81.3	
Tanzania	100.0	106.2	89.3	73.3	82.1	61.5	63.6	62.8		58.1	98.5	61.5
Togo	100.0	88.6	90.9	79.8	78.6	75.2	72.6	74.7	72.4	71.5	93.2	72.8
Zambia	100.0	88.0	93.0	88.0	81.0	75.0					93.7	
Zimbabwe	100.0	97.0	143.0	107.0	117.0	110.0	123.0				113.3	123.0

SOURCES:

UMOA Countries: Bulletin Statistique de la BCEAO, various (January 1st)

Cameroon, Congo, Ethiopia, Gabon, Gambia, Guinea, Mauritania, Liberia, Madagascar, Malawi, Nigeria, Rwanda, Somalia, Sudan, Zambia, and Zimbabwe: ILO, 1989.

Ghana, World Bank, Ghana: Progress on Adjustment, Report No. 9475-GH, April 16, 1991

Tanzania: Fidelis P. Mtatitizolo, "Tanzania's Incomes Policy: An Analysis of trends." University of Dar Es Salaam/Institute for International Economics, Wash. DC. (1986/877)

Kenya: Milne, William J. "Labour Markets in an Era of Adjustment: Kenya," Institute for Policy Analysis, University of Toronto. (Oct 1990)

(Kenya real wages computed from Rates of change in Real Minimum Wage given in Milne, Table 8)

Other Countries: IMF, Recent Economic Developments, various issues

GOVERNMENT EXPENDITURE (NET OF INTEREST) AS A PERCENTAGE OF GDP

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	Average 1980-82	Average 1987-89	Average 1990-92
BOTSWANA	33.35	37.17	33.18	29.15	29.49	27.12	32.17	31.72	27.72	30.09	34.17			34.57	29.84	34.17
BURKINA	16.19	15.00	17.07	13.51	15.62	12.02	14.19							16.09		
BURUNDI	20.78	23.01												21.89		
CAMEROON	15.64	20.48	20.51	20.33		20.89				19.01	19.93	20.72		18.88	19.01	20.32
DJIBOUTI	44.63	24.40	3.44	33.52										24.16		
ETHIOPIA	22.73	23.61	25.49	31.44	27.73	29.48	30.70	29.84	33.05	36.53				23.94	33.14	
GABON	33.53	39.62	37.93	37.00	38.60	38.22				27.71	23.78	33.93		37.03	27.71	28.85
GAMBIA	31.54	30.96	29.19								21.23			30.56		21.23
GHANA	11.11	11.61	9.50	8.02	8.60	11.86	11.60	12.27	12.35					10.74	12.31	
GUINEA BISSAU				49.30	58.50	57.50	53.50									
KENYA	25.80	27.18	25.95	23.14	22.59	234.15	21.33	24.63	23.06	26.25	23.30	23.05		26.31	24.65	23.17
LIBERIA	28.20	31.19	31.03	26.17	21.45	20.96	22.01	20.31	29.14					30.14	24.73	
MALAWI	30.57	29.73	23.54	23.89	22.51	24.29	25.65	23.48	23.09	25.42	24.43			27.95	24.00	24.43
MALI	24.26	22.65	27.57	30.34	29.82	28.28	26.00	24.49						24.82	24.49	
MAURITANIA					43.00	49.60	26.70	27.60	27.30						27.45	
MAURITIUS	25.05	26.37	24.56	23.22	21.56	21.56	19.33	19.43	21.40	21.99	21.46	20.75	22.34	25.33	20.94	21.51
NIGERIA					11.89	10.09	14.70	12.60							12.60	
SENEGAL	23.90	24.80	25.30	25.30	25.60									24.67		
SEYCHELLES						48.76	54.77	43.33	41.78	47.69					44.27	
SIERRA LEON	28.89	27.67	21.97	20.15	14.80	10.78	10.40	23.88	7.17	12.74	9.89	18.90		26.18	14.60	14.39
SUDAN	14.80		16.70											15.75		
SWAZILAND	26.47	31.83	31.56	30.30	29.21	29.74	25.15	21.66	20.35	20.97				29.96	20.99	
TANZANIA	26.80	24.60	31.60	27.40	24.10	19.20								27.67		
TOGO	31.02	30.16	29.56	25.16	30.58	30.66	37.54	31.50						30.25	31.50	
UGANDA	5.70	5.40	12.40	12.80	13.90	10.70	9.00							7.83		
ZAIRE	5.83	5.05	3.32											4.73		
ZAMBIA	33.73	33.81	36.34	27.79	28.14	31.05	37.37	34.31	28.43	19.97				34.62	27.57	
ZIMBABWE	32.46	26.69	32.90	29.44	35.25	33.92	35.75	38.99						30.68	38.99	

SOURCE: GOVERNMENT FINANCIAL STATISTICS YEARBOOK, VARIOUS YEARS

1995

BEST AVAILABLE DOCUMENT

REAL PER CAPITA GOVERNMENT EXPENDITURE (NET OF INTEREST), INDEXED

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	Average 1980-82	Average 1987-89	Average 1990-91
BOTSWANA	100.00	104.91	130.51	121.68	141.46	135.00	149.78	174.99	179.69	173.55	211.20	213.61	111.80	176.08	212.40
BURKINA	100.00	94.18	106.74	81.23	92.95	78.78	88.27	96.63					100.31	96.63	
BURUNDI	100.00	119.95											109.98		
CAMEROON	100.00	139.55	145.43	149.66	0.00	169.91				121.05	126.41		128.33	121.05	126.41
ETHIOPIA	100.00	107.86	115.31	150.10	121.58	117.37	126.42	130.48	142.99	155.59			107.72	143.02	
GAMBIA	100.00	90.65	89.10										93.25		
GHANA	100.00	95.84	81.13	72.14	76.44	107.91	108.25	116.99	117.81				92.32	117.40	
KENYA	100.00	105.61	98.75	88.45	81.87	65.20	79.19	91.38	85.78	98.44			101.45	91.87	
LIBERIA	100.00	101.72	100.65	89.15	69.08	64.11	67.45	59.93	84.83				100.79	72.38	
MALAWI	100.00	89.95	71.29	73.59	69.27	75.47	79.23	73.45	72.37	77.75	76.69		87.08	74.52	76.69
MALI	100.00	55.45	70.10	71.87	68.78	73.98	82.77	73.41	78.13				75.18	75.77	
MAURITIUS	100.00	100.00	108.10	106.50	102.53	97.15	101.64	99.71	109.13	128.38	136.63		102.70	111.74	136.63
SIERRA LEONE	100.00	99.08	78.35	69.15	50.24	34.84	31.98	75.44	22.66	40.18	31.81	60.88	92.48	46.09	46.34
SWAZILAND	100.00	121.20	115.82	110.23	103.80	111.09	100.21	86.99	88.24	90.52			112.34	88.58	
TANZANIA	100.00	88.69	111.12	90.91	80.39	57.13							99.93		
TOGO	100.00	88.91	83.51	67.84	81.01	81.21	99.88	82.44					90.81	82.44	
ZAIRE	100.00	110.32	97.24						136.40				102.52	136.40	
ZAMBIA	100.00	100.78	102.17	74.27	72.62	77.85	87.35	79.31	70.12	47.05			100.98	65.49	
ZIMBABWE	100.00	89.32	111.91	98.23	112.04	104.15	97.26	117.42	105.39	113.71			100.41	112.17	

SOURCE: GOVERNMENT AND INTERNATIONAL FINANCIAL STATISTICS YEARBOOKS, VARIOUS YEARS.

196

BEST AVAILABLE DOCUMENT!

INTEREST PAYMENTS AS A PERCENTAGE OF GOVERNMENT EXPENDITURE

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	Average 1980-1982	Average 1987-89	Average 1990-92
BOTSWANA	1.94	1.88	2.95	3.27	3.65	4.12	4.03	3.72	4.71	2.87	2.21	2.26		2.26	3.77	2.23
BURKINA		2.87	2.62	2.16	5.72	10.27	8.02	8.74						2.74	8.74	
BURUNDI		1.85												1.85		
CAMEROON	0.61	1.01		2.65						6.08	5.41	6.14	7.09	0.81	6.08	6.21
COMOROS			1.68	2.07	2.39	2.51	3.42							1.68		
COTE D'IVOIR	7.92													7.92		
ETHIOPIA	3.18	3.64	3.52	2.89	5.13	7.15	5.44	5.61	5.88	5.20				3.45	5.56	
GAMBIA	1.32	2.74	4.43								15.56			2.83		15.56
GHANA	15.53	13.24	20.71		12.83	11.11	16.05	10.37	9.80					16.49	10.08	
GUINEA BISSAU							4.61	7.68							7.66	
KENYA	7.06	8.13	12.22	14.62	15.77	15.08	18.60	16.38	18.53	17.89	19.37	23.35		9.14	17.60	21.36
LESOTHO								5.75	8.80	12.68	10.70	8.71			8.40	9.70
LIBERIA	9.82	6.44	10.43	13.04	21.38	23.40	14.82	16.28	10.75					8.90	13.51	
MADAGASCAR									12.12	9.57	10.71	13.44			10.85	12.07
MALAWI	9.34	13.66	15.39	13.46	15.97	19.83	20.50	21.44	16.02					12.80	18.73	
MALI	0.68	0.81	1.13	1.16	1.82	3.44	2.51	5.32						0.87	5.32	
MAURITIUS	13.67	15.62	19.25	20.15	21.14	21.03	21.04	17.97	13.79	11.76	15.06	15.73	12.76	16.18	14.50	14.52
NIGERIA					25.64	28.34	25.75	47.40							47.40	
RWANDA										5.38	5.27	9.01	8.75		5.38	7.67
SEYCHELLES						8.03	5.13	16.68	17.76	15.07					16.50	
SIERRA LEONE				9.13	10.42	10.73		13.08	55.24	21.02					29.78	
SWAZILAND	0.30	1.79	4.31	4.55	4.93	6.10	7.42	6.70	6.28	5.69				2.13	6.22	
TANZANIA	6.81	7.70				10.19								7.26		
TOGO		8.59	7.73	18.39	13.20	15.48								8.16		
ZAIRE	7.55	11.14	11.47						6.31	9.81	6.59			10.05	8.06	6.59
ZAMBIA	8.99	7.76	7.29	13.70	3.71	11.62	10.41	0.50	0.29					8.01	0.39	
ZIMBABWE	6.80	9.07	9.16	10.69	11.31	13.01	13.33	13.27	14.10	15.54	15.99	2.07		8.34	14.30	9.03

SOURCE: GOVERNMENT FINANCIAL STATISTICS, VARIOUS YEARS

197

BEST AVAILABLE DOCUMENT

F-7

EDUCATION EXPENDITURE AS A PERCENTAGE OF GOVERNMENT EXPENDITURE (NET OF INTEREST)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	Average 1980-82	Average 1987-89	Average 1990-92
BOTSWANA	22.61	21.56	18.14	20.07	18.11	18.45	19.18	18.83	20.98	20.88	20.98	21.48		20.77	20.23	21.23
BURKINA	15.48	16.24	16.10	20.56	17.79	21.23	19.23	15.31						15.94	15.31	
BURUNDI (1)	20.80	21.40	17.70	18.60	19.70	21.70	20.90	21.90	21.20	20.80				19.97	21.30	
CAMEROON	12.40	7.60		13.70		14.40				12.80				10.00	12.80	
COMOROS					19.40			25.10								
COTE D'IVOIRE (2)	43.50	43.10	42.40	42.60	39.50	42.10	44.70	43.80							25.10	
ETHIOPIA	10.39	11.09	11.80	9.86	11.98	12.46	11.38	9.22	11.19	10.47				43.00	43.80	
GAMBIA (3)	12.70	14.20	16.40	16.90	12.30	8.90	8.10	4.60	5.00	6.80	13.55			11.09	10.29	
GHANA	26.02	19.70	23.54		23.15	20.25	28.50	26.69	28.50					14.43	5.47	13.55
GUINEA BISSAU				11.86	10.84	10.17	7.68	5.64		2.65				23.09	27.59	
KENYA	21.09	22.40	22.68	24.17	23.22	23.03	27.80	25.41	27.16	24.11	24.67	26.28			4.14	
LESOTHO (3)	11.00	13.00	15.30	17.40	12.40	15.10	11.30	14.10	16.20	14.40				22.06	25.56	25.47
LIBERIA	13.22	17.06	17.06	17.74	19.52	21.49	16.63	19.40	9.15					13.10	14.90	
MADAGASCAR (3)	14.70	12.80	14.80	17.10	15.70	15.70	16.10	13.50						15.78	14.27	
MALAWI	9.90	12.81	16.86	15.48	14.67	13.75	13.57	12.79	14.64					14.10	13.50	
MALI	15.78	13.12	10.57	10.16	9.77	9.38	9.51	10.30						13.19	13.72	
MAURITIUS	20.42	18.71	18.22	19.97	19.40	18.11	17.64	15.05	15.47	17.33	16.80	17.23	16.76	13.16	10.30	
NIGER (3)	17.30	8.40	12.10	13.70	13.50	12.20	11.70	12.00						19.12	15.95	16.93
NIGERIA (3)	5.20	7.80	7.90	7.40	8.00	8.00	4.80	2.70	2.00					12.60	12.00	
SENEGAL	22.60	23.10	18.60	18.80	16.80									6.97	2.35	
SIERRA LEONE (3)	10.20	14.30	15.80	13.90	15.70	12.90	9.00	4.10						21.43		
SOMALIA (3)	6.10	7.00	5.20	5.50	3.60	2.60	1.70	0.80	0.60				13.28	13.43	4.10	13.28
SWAZILAND	24.64	21.56	18.74	21.78	23.40	21.62	23.82	26.41	25.51	25.95				6.10	0.70	
TANZANIA	14.30	14.38	12.47	13.18	11.66	9.22								21.65	25.96	
TOGO		18.20	24.80	24.00	17.10	13.80	13.10	19.90						13.72		
UGANDA (3)	14.50	12.30	12.20	10.90	11.60	12.70	15.00	10.40	12.50					21.50	19.90	
ZAIRE	12.50	12.90	6.30	16.80	16.70	13.80	8.40	8.80	8.60					13.00	11.45	
ZAMBIA	12.49	12.86	16.29	16.79	16.65	13.79	8.39	8.76	8.64					10.57	8.70	
ZIMBABWE (3)	15.40	18.70	19.80	19.60	18.80	19.40	21.10	19.80	20.10	21.30				13.88	8.70	
														17.97	20.40	

SOURCES:

1/ BURUNDI PUBLIC EXPENDITURE REVIEW, WORLD BANK, FEBRUARY 1992. SHARE OF RECURRENT EXPENDITURE ONLY.

2/ HUMAN RESOURCES DISCUSSION PAPER: REPUBLIQUE COTE D'IVOIRE, WORLD BANK, DECEMBER 1988. SHARE OF RECURRENT EXPENDITURE ONLY.

3/ AFRICAN DEVELOPMENT INDICATORS, UNDP/WORLD BANK, 1992. SHARE OF TOTAL EXPENDITURE MINUS LENDING & REPAYMENTS.

ALL OTHERS ARE FROM THE GOVERNMENT FINANCIAL STATISTICS YEARBOOK, VARIOUS YEARS. SHARE OF TOTAL EXPENDITURE MINUS INTEREST PAYMENTS.

198

BEST AVAILABLE DOCUMENT

HEALTH EXPENDITURE AS A PERCENTAGE OF GOVERNMENT EXPENDITURE (NET OF INTEREST)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	Average 1980-82	Average 1987-89	Average 1990-92
BOTSWANA	5.49	6.06	5.06	5.82	4.95	5.19	6.14	7.73	5.71	4.94	5.17	4.84		5.54	6.12	5.00
BURKINA	5.82	6.00	6.78	7.08	5.86	6.92	5.87	5.72						6.20	5.72	
BURUNDI (1)	5.60	5.10	4.40	4.30	5.60	6.30	6.50	4.50	4.80	5.70				5.03	5.00	
CAMEROON	5.15	2.76	0.00 ^b	4.05		5.11				3.57				2.64	3.57	
COMOROS					5.71			7.30							7.30	
COTE D'IVOIRE (2)		7.70	7.50	7.70	7.10	7.30	7.00	7.00	7.30					7.63	7.15	
DJIBOUTI		8.15												8.15		
ETHIOPIA	3.86	4.12	3.87	3.31	3.82	3.92	3.65	4.09	3.63	3.20				3.95	3.64	
GAMBIA	7.48	7.39	8.35								7.67			7.74		7.67
GHANA	8.24	7.36	7.27		9.85	11.02	9.87	9.24	9.92					7.62	9.58	
GUINEA BISSAU				7.93	9.63	5.19	7.08	5.85		1.44					3.65	
KENYA	8.42	9.50	8.35	8.15	7.90	7.50	7.94	7.17	7.24	6.53	6.67	7.06		8.42	6.98	6.86
LIBERIA	5.76	8.13	8.00	8.36	7.89	7.22	6.69	8.48	4.24					7.30	6.36	
MADAGASCAR (3)	4.80	2.90	3.80	4.70	4.70	5.10	5.00	5.10						3.83	5.10	
MALAWI	6.10	5.97	6.18	7.82	9.43	8.57	8.93	7.52	8.65					6.08	8.08	
MALI	3.16	4.65	2.82	2.58	1.85	1.75	2.51	2.74						3.54	2.74	
MAURITIUS	8.66	8.26	8.79	10.04	10.53	9.76	9.88	9.22	8.89	10.46	10.19	10.39	9.26	8.57	9.52	9.95
NIGER (3)	3.80	2.40	2.70	3.40	4.10	3.40	3.60	4.10						3.00	4.10	
NIGERIA (3)	1.80	2.00	2.60	2.30	1.40	2.00	2.20	0.80	1.70					2.13	1.25	
SENEGAL	4.60	4.70	4.20	5.00	4.60									4.50		
SIERRA LEONE (3)	4.80	6.90	6.90	5.80	7.20	4.90	3.80	1.70			9.60			6.20	1.70	9.60
SOMALIA (3)	2.40	2.60	1.90	1.90	1.30	1.00	0.70	0.40	0.30					2.30	0.35	
SWAZILAND	7.18	5.51	7.44	7.72	7.06	7.99	9.01	10.30	0.92	8.76				6.71	6.57	
TANZANIA	6.39	6.53	5.38	5.10	5.46	6.30								6.10		
TOGO		5.77	6.61	6.95	6.23	4.27	3.77	5.20						6.19	5.20	
UGANDA (3)	4.90	5.70	4.20	3.80	2.50	3.50	2.40	4.10	2.90					4.93	3.50	
ZAIRE (3)	2.50	2.60	3.20		2.90	3.60	3.40	4.70	4.30					2.77	4.50	
ZAMBIA	6.65	6.56	9.00	7.63	7.52	6.55	4.59	5.15	7.45					7.40	6.30	
ZIMBABWE (3)	5.40	6.70	5.80	5.60	5.70	6.00	6.30	6.40	6.90	6.90				5.97	6.73	

SOURCES

1/ BURUNDI PUBLIC EXPENDITURE REVIEW, WORLD BANK, FEBRUARY 1992. SHARE OF RECURRENT EXPENDITURE ONLY.

2/ HUMAN RESOURCES DISCUSSION PAPER: REPUBLIQUE COTE D'IVOIRE, WORLD BANK, DECEMBER 1988. SHARE OF RECURRENT EXPENDITURE ONLY.

3/ AFRICAN DEVELOPMENT INDICATORS, UNDP/WORLD BANK, 1992. SHARE OF TOTAL EXPENDITURE MINUS LENDING & REPAYMENTS.

ALL OTHERS ARE FROM THE GOVERNMENT FINANCIAL STATISTICS YEARBOOK, VARIOUS YEARS. SHARE OF TOTAL EXPENDITURE MINUS INTEREST PAYMENTS.

199

BEST AVAILABLE DOCUMENT

REAL PER CAPITA EDUCATION EXPENDITURE, INDEXED

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	Average 1980-82	Average 1987-89	Average 1990-91
BOTSWANA	99.97	100.00	104.66	107.97	113.22	110.10	127.02	145.66	166.69	160.18	195.87	202.85	101.54	157.51	199.36
BURKINA	100.40	100.00	112.15	111.35	102.71	108.43	122.49	95.98					104.18	95.98	
CAMEROON	118.13	100.00		194.66	185.85	230.19	202.59	230.54	227.97	146.52			109.07	201.68	
ETHIOPIA	86.83	100.00	113.73	123.69	121.76	122.24	120.28	100.59	133.73	136.15			100.19	123.49	
GAMBIA (1)	82.18	100.00	126.73	107.92	80.20	52.48	40.59	39.60	43.56				102.97	41.58	
GHANA	137.85	100.00	101.19		93.76	115.78	163.42	165.39	177.89				113.01	171.64	
KENYA	89.16	100.00	94.66	90.36	80.35	82.93	93.07	98.15	98.48	100.34			94.61	98.99	
LESOTHO (1)	85.99	100.00	107.17	127.04	102.61	104.89	95.11	120.20	133.55				97.72	126.87	
LIBERIA	76.16	100.00	98.94	91.13	77.70	79.38	64.63	66.99	44.70				91.70	55.85	
MADAGASCAR (1)	136.14	100.00	87.95	86.75	81.93	75.90	73.49	67.47					108.03	67.47	
MALAWI	85.96	100.00	104.32	98.85	88.22	90.11	93.33	81.55	92.00				96.76	86.77	
MALI	215.52	100.00	101.08	99.35	91.59	94.40	107.33	103.02	99.33				138.86	101.19	
MAURITIUS	101.63	100.00	98.53	104.07	95.73	93.80	89.33	83.43	99.29	120.33			100.07	101.02	
NIGER (1)	171.76	100.00	103.53	115.29	92.94	88.24	90.59	87.06					125.10	87.06	
NIGERIA (1)	60.71	100.00	80.36	69.64	44.64	44.64	37.50	28.57	19.64				80.36	24.11	
RWANDA (1)	66.43	100.00	87.14	82.14	74.29	69.29	83.57						84.52		
SIERRA LEONE (1)	71.21	100.00	86.36	75.76	63.64	40.91	36.36	25.76					85.86	25.76	
SENEGAL	102.06	100.00	96.07	93.67	81.73								99.38		
SOMALIA (1)	90.48	100.00	85.71	80.95	47.62	42.86	33.33	19.05	14.29				92.06	16.67	
SWAZILAND	85.47	100.00	75.73	84.02	87.01	86.24	86.75	79.74	78.03	81.54			87.07	79.77	
TANZANIA	112.15	100.00	108.67	93.98	73.52	41.30							106.94		
TOGO		100.00	127.60	100.48	85.23	69.26	80.93	101.16					113.80	101.16	
UGANDA (1)	150.00	100.00	221.43	214.29	250.00	214.29	207.14	100.00	178.57				157.14	139.29	
ZAIRE (1)	83.33	100.00	74.24	0.00	10.61	12.12	9.09	40.91	36.36				85.86	38.64	
ZAMBIA	96.31	100.00	128.37	96.20	93.29	82.93	56.55	53.61	46.74				108.23	50.18	
ZIMBABWE (1)	85.42	100.00	131.51	114.84	124.74	122.14	128.13	133.59	126.82	148.70			105.64	136.37	

SOURCES:

1/ AFRICAN DEVELOPMENT INDICATORS, UNDP/WORLD BANK, 1992.

ALL OTHERS ARE FROM THE GOVERNMENT AND INTERNATIONAL FINANCIAL STATISTICS YEARBOOKS, VARIOUS YEARS.

200

BEST AVAILABLE DOCUMENT

REAL PER CAPITA HEALTH EXPENDITURE, INDEXED

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	Average 1980-82	Average 1987-89	Average 1990-91
BOTSWANA	86.335	100	103.87	111.43	110.13	110.23	144.68	212.64	161.41	134.71	171.66	162.56	96.734	169.59	167.11
BURKINA	102.25	100	127.91	103.99	93.967	95.706	97.955	97.137					110.05	97.137	
CAMEROON	133.38	100		157.3	196.76	224.86	157.9	175.87	134.54	111.96			116.69	140.79	
ETHIOPIA	86.817	100	100.48	111.66	104.55	103.59	103.77	120.25	116.84	112.15			95.765	116.41	
GAMBIA (2)	100	100	118	104	92	68	82	80	88	86			106	84.667	
GHANA	116.83	100	83.549		106.68	168.56	151.41	153.18	165.7				100.13	159.44	
KENYA	93.879	100	91.901	80.333	72.088	71.228	70.079	73.06	69.258	71.679			95.26	71.332	
LESOTHO (2)	75.439	100	115.79	141.23	120.18	125.44	131.58	323.68	359.65	256.14			97.076	313.16	
LIBERIA	69.627	100	97.36	90.087	65.829	55.962	54.503	61.395	43.44				88.996	52.417	
MADAGASCAR (2)	194.74	100	94.737	105.26	105.26	110.53	100	110.53					129.82	110.53	
MALAWI	113.55	100	81.945	107.12	121.53	120.32	131.69	102.73	116.48				98.497	109.6	
MALI	119.76	100	76.168	71.377	49.102	49.82	79.88	77.605	63.952				98.643	70.778	
MAURITIUS	97.182	100	104.76	115.16	114.48	111.37	110.2	112.54	125.75	159.96			100.65	132.75	
NIGER (2)	132	100	80	100	96	84	96	100					104	100	
NIGERIA (2)	73.333	100	100	80	26.667	40	66.667	26.667	60				91.111	43.333	
RWANDA (2)	100	100	100	95.652	82.609	91.304	108.7						100		
SIERRA LEONE (2)	68.75	100	78.125	65.625	59.688	31.25	21.875						82.292		
SENEGAL	101.69	100	107.06	122.95	107.79								102.92		
SOMALIA (2)	100	100	75	75	50	37.5	37.5	25	12.5				91.667	18.75	
SWAZILAND	107.53	100	129.89	128.71	113.44	137.74	141.72	130.86	120.97	118.82			112.47	123.55	
TANZANIA (1)	103.89	100	79.505	72.085	81.979	65.018	80.212	86.572	93.286				94.464	89.929	
TOGO		100	107.56	91.941	98.46	67.56	73.356	83.54					103.78	83.54	
UGANDA (2)	116.67	100	183.33	183.33	133.33	133.33	83.333	83.333	100				133.33	91.667	
ZAIRE (2)	77.778	100	111.11	0	111.11	133.33	144.44	244.44	188.89				96.296	216.67	
ZAMBIA	100.59	100	139.13	85.778	82.569	77.288	60.673	61.764	79.003				113.24	70.383	
ZIMBABWE (2)	83.824	100	108.82	92.647	106.62	106.62	108.82	122.06	122.79	136.76			97.549	127.21	

SOURCES:

1/TANZANIA: POPULATION, HEALTH AND NUTRITION SECTOR REVIEW, WORLD BANK, OCTOBER 1989.

2/AFRICAN DEVELOPMENT INDICATORS, UNDP/WORLD BANK, 1992.

ALL OTHERS ARE FROM THE GOVERNMENT AND INTERNATIONAL FINANCIAL STATISTICS YEARBOOKS, VARIOUS YEARS.

108
101

BEST AVAILABLE DOCUMENT

INFANT MORTALITY RATE (PER 1000 LIVE BIRTHS)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	Average 1980-82	Average 1987-89	Average 1990-91
Angola	153	151	149	147	144	142	139	137	135	132	130	127	151	135	128
Benin	124	122	120	119	118	113	117	116	115	114	112	111	122	115	112
Botswana	63	56	50	48	47	45	43	42	40	39	38	36	56	40	37
Burkina Faso	154	152	149	147	145	142	140	138	137	136	134	133	152	137	134
Burundi	122	120	118	117	116	114	113	112	111	110	108	107	120	111	108
Cameroon	84	91	88	85	82	80	77	74	71	69	66	64	91	71	65
Cape Verde	68	67	66	64	61	59	56	54	51	48	46	43	67	51	44
Central African Republic	118	116	115	114	113	111	110	109	108	107	107	106	116	108	106
Chad	147	145	143	141	139	136	134	132	130	128	126	124	145	130	125
Comoros	113	111	109	107	105	103	101	99	97	94	92	90	111	97	91
Congo	124	124	124	123	122	121	120	119	118	117	116	115	124	118	116
Cote d'Ivoire	110	108	105	104	103	101	100	98	97	96	95	95	108	97	95
Djibouti	136	134	132	130	128	126	124	122	120	118	115	113	134	120	114
Ethiopia	155	157	159	155	150	146	141	137	135	133	132	130	157	135	131
Gabon	116	114	112	110	108	107	105	103	101	99	97	95	114	101	96
Gambia, The	159	157	154	152	150	147	145	143	141	139	136	134	157	141	135
Ghana	100	99	98	96	95	93	92	90	88	86	85	83	99	88	84
Guinea	161	159	157	155	152	150	147	145	143	140	138	136	159	143	137
Guinea-Bissau	168	166	163	161	158	156	153	151	150	149	148	148	166	150	148
Kenya	84	82	81	79	77	76	74	72	71	70	68	67	82	71	68
Lesotho	545	323	100	98	96	93	91	89	87	85	83	81	323	87	82
Liberia	159	156	153	151	149	146	144	142	140	138	136	134	156	140	135
Madagascar	138	134	130	128	126	124	122	120	119	117	116	114	134	119	115
Malawi	169	168	163	160	157	155	152	149	149	149	148	143	166	149	146
Mali	184	182	180	178	176	173	171	169	168	167	166	161	182	168	164
Mauritania	142	139	137	135	133	131	129	127	125	123	121	119	139	125	120
Mauritius	32	30	28	27	26	26	25	24	23	22	21	19	30	23	20
Mozambique	156	154	153	153	154	154	155	155	153	152	150	149	154	153	150
Niger	150	148	146	144	142	139	137	135	133	130	128	126	148	133	127
Nigeria	99	98	96	94	92	90	89	87	86	86	85	85	98	86	85
Senegal	103	100	97	95	93	91	89	87	86	84	83	81	100	86	82
Sierra Leone	172	169	167	164	162	159	157	154	152	150	147	145	169	152	146
Somalia	145	144	143	141	139	136	134	132	131	130	129	128	144	131	129
Sudan	123	121	118	116	114	112	110	108	106	104	102	101	121	106	102
Swaziland	133	131	129	127	125	122	120	118	116	114	112	110	131	116	111
Tanzania	122	120	119	118	118	117	116	115	115	115	115	115	120	115	115
Togo	110	107	105	103	101	98	96	94	92	90	89	87	107	92	88
Uganda	116	116	116	116	116	116	116	116	116	117	117	118	116	116	118
Zaire	113	112	111	111	111	111	111	111	107	103	99	95	112	107	97
Zambia	91	90	89	91	93	95	97	99	101	103	104	106	90	101	105
Zimbabwe	82	81	80	74	69	63	57	52	51	50	49	48	81	51	48

CHILD MORTALITY ESTIMATES (Birth to Age Five)

	United Nations Data 1975-80	Hill and Peibly Data 1975-80	United Nations Data 1980-85	Hill and Peibly Data 1980-85	United Nations Data 1985-90	World Bank Data 1987-89	World Bank Data 1990-91
Angola	271		251		232	219	214
Benin	220	215	202		184	164	166
Botswana	115	105	108	70	92	47	40
Burkina Faso	265		254		235	200	199
Burundi	210		209		191	177	179
Cameroon	185		170		153	126	121
Cape-Verde	123		104		88	51	50
Central African Republic	245		240		223	166	129
Chad	281		241		223	210	208
Comoros	158		142		127	131	128
Congo	137		129		115	178	168
Côte d'Ivoire	185		165		148	135	154
Djibouti						193	189
Equatorial Guinea	251		232		214		
Ethiopia	262		262		252	196	195
Gabon	205		186		169	158	154
Gambia	323		302		281	231	227
Ghana	169	150	161	160	145	136	131
Guinea	289		269		249	233	227
Guinea-Bissau	281		241		223	251	249
Kenya	143		128		113	105	105
Lesotho	169		152		135	134	157
Liberia	242	243	224	220	206	181	218
Madagascar	119		104		90	169	165
Malawi	310		287		263	249	195
Mali	335	302	312	272	291	224	193
Mauritania	251		232		214	204	199
Mauritius	48		36		28	25	25
Mozambique	282		262		241	205	280
Niger	266		246		228	216	320
Nigeria	209	161	191		173	161	186
Rwanda	237	230	223		205		
Sao Tome and Principe							
Senegal	259	242	240	210	222	129	150
Seychelles							
Sierra Leone	335		312		291	249	359
Somalia	282		262		252	212	210
Sudan	221		198		175	169	166
Swaziland	209		190		173	147	144
Tanzania	210		192		174	193	162
Togo	186		168		152	142	140
Uganda	190	170	166	185	169	196	185
Zaire	195		178		161	152	150
Zambia	153		142		127	131	176
Zimbabwe	137	137	128		113	72	67

LIFE EXPECTANCY RATES

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	Average 1980-82	Average 1987-89	Average 1990-91
Benin	47.1	47.8	48	48.5	48.9	49.4	49.8	50.3	50.3	50.4	50.5	50.5	47.8	50.3	50.5
Botswana	59.8	62.3	64.7	65.1	65.5	65.9	66.3	66.7	66.9	67.1	67.4	67.6	62.3	66.9	67.5
Burkina Faso	44.4	44.8	45.2	45.6	45.9	46.3	46.6	47	47.2	47.5	47.7	48	44.8	47.2	47.9
Burundi	47.1	47.5	47.9	48	48.1	48.2	48.3	48.4	48.3	48.2	48.1	48.1	47.5	48.3	48.1
Cameroon	50	50.5	51	51.5	52	52.5	53	53.5	54	54.5	55	55.5	50.5	54.0	55.3
Cape-Verde	62.4	63.2	64	64.4	64.8	65.2	65.6	66	66.3	66.6	67	67.3	63.2	66.3	67.2
Central African Republic	45.6	46	46.3	46.6	46.9	47.2	47.5	47.7	47.8	47.4	47.3	47.1	48.0	47.6	47.2
Chad	42.2	42.6	43	43.5	44	44.5	45	45.5	45.9	46.3	46.7	47.1	42.6	45.9	46.9
Comoros	51.2	51.6	52	52.4	52.8	53.2	53.6	54	54.4	54.8	55.2	55.6	51.6	54.4	55.4
Congo	49.7	50.1	50.5	50.8	51.1	51.4	51.7	52	51.9	51.8	51.7	51.6	50.1	51.9	51.7
Côte d'Ivoire	49.5	50	50.6	50.8	51.1	51.4	51.7	52	51.9	51.8	51.7	51.6	50.0	51.9	51.7
Equatorial Guinea	42.9	43.2	43.5	43.9	44.3	44.7	45	45.4	45.9	46.3	46.8	47.2	43.2	45.9	47.0
Ethiopia	43.5	43.1	42.8	43.6	44.5	45.3	46.2	47	47.4	47.7	48	48.3	43.1	47.4	48.2
Gabon	48.2	46.6	49	49.5	50	50.5	51	51.5	52	52.5	53	53.5	46.6	52.0	53.3
Gambia	40.2	40.6	41	41.5	42	42.5	42.9	43.4	43.7	44	44.2	44.5	40.6	43.7	44.4
Ghana	51.6	51.8	52	52.4	52.8	53.2	53.6	54	54.2	54.4	54.7	54.9	51.8	54.2	54.8
Guinea-Bissau	39.6	39.9	40.2	40.7	41.4	41.6	42	42.5	42.7	43	43.3	43.6	39.9	42.7	43.5
Kenya	54.9	55.4	55.8	56.2	56.6	57.1	57.5	57.9	58.1	58.3	58.5	58.7	55.4	58.1	58.6
Lesotho	51.9	52.2	52.5	53	53.5	54	54.5	55	55.4	55.7	56.1	56.5	52.2	55.4	56.3
Liberia	50.7	51.1	51.5	51.8	52.1	52.5	52.8	53.1	53.5	53.9	54.3	54.7	51.1	53.5	54.5
Madagascar	49.7	49.8	49.9	50	50.1	50.1	50.2	50.3	50.5	50.7	51	51.2	49.8	50.5	51.1
Malawi	44.2	44.6	45	45.3	45.6	45.9	46.1	46.4	46	45.5	45.1	44.6	44.6	46.0	44.9
Mali	44.4	44.7	45	45.4	45.9	46.3	46.7	47.2	47.4	47.7	47.9	48.2	44.7	47.4	48.1
Mauritania	43.2	43.6	44	44.4	44.8	45.2	45.6	46	46.3	46.6	46.9	47.3	43.6	46.3	47.1
Mauritius	66	66.3	66.7	67.1	67.6	68	68.4	68.8	69.2	69.5	69.8	70.1	68.3	69.2	70.0
Mozambique	43.8	43.9	44	44.5	45	45.5	46	46.5	46.6	46.6	46.7	46.8	43.9	46.6	46.8
Niger	41.7	42.1	42.5	42.9	43.3	43.7	44.1	44.5	44.8	45.1	45.5	45.6	42.1	44.8	45.7
Nigeria	47.7	48.1	48.5	48.9	49.3	49.7	50.1	50.5	50.7	51	51.2	51.5	48.1	50.7	51.4
Rwanda	45.9	46.2	46.5	46.8	46.8	46.9	47.1	47.2	47	46.8	46.6	46.4	46.2	47.0	46.5
Sao Tome and Principe			63.4	63.7	64.1	64.5	64.9	65.2	65.7	66.2	66.7	67.1	63.4	65.7	66.9
Senegal	45.2	45.2	45.3	45.6	45.8	46.1	46.4	46.6	46.8	47.1	47.3	47.5	45.2	46.8	47.4
Seychelles			68.7	68.9	69.1	69.3	69.5	69.7	70.1	70.4	70.7	71.1	68.7	70.1	70.9
Sierra Leone	38.2	38.6	39	39.4	39.8	40.2	40.6	41	41.3	41.7	42	42.4	38.8	41.3	42.2
Somalia	44.2	44.5	44.8	45.3	45.8	46.3	46.8	47.3	47.6	47.9	48.2	48.5	44.5	47.6	48.4
Sudan	48.7	47.2	47.8	48.2	48.6	49	49.4	49.8	50.2	50.6	51	51.4	47.2	50.2	51.2
Swaziland	51.7	52.3	53	53.5	54	54.5	55	55.5	55.8	56.2	56.5	56.9	52.3	55.8	56.7
Tanzania	50.2	50.6	51	51.2	51.3	51.5	51.6	51.8	51.6	51.4	51.2	51	50.6	51.6	51.1
Togo	49.5	50	50.5	51	51.5	52	52.5	53	53.2	53.4	53.7	53.9	50.0	53.2	53.8
Uganda	48.4	48.4	48.3	48.3	48.3	48.3	48.3	48.3	47.9	47.4	46.9	46.5	48.4	47.9	48.7
Zaire	49.2	49.6	50	50.4	50.8	51.2	51.6	52	51.9	51.9	51.9	51.9	49.6	51.9	51.9
Zambia	50.1	50.3	50.6	51	51.4	51.8	52.3	52.7	51.7	50.7	49.7	48.7	50.3	51.7	49.2
Zimbabwe	55	55.4	55.8	57.1	58.4	59.7	61	62.3	61.8	61.3	60.8	60.3	55.4	61.8	60.6

202

F-15
VACCINATION COVERAGE

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	Average 1980-82	Average 1987-89	Average 1990-92
Angola																
BCG								29	32	47	48				36	48
DPT			9			19	20	10	12	18	23	27	12	9	13	21
Polio			7			13	58	16	13	19	23	26	13	7	16	21
Measles			17			44	44	55	56	42	38	40	26	17	51	35
Average			11			25	41	28	28	32	33	31	17	11	29	31
Benin																
BCG					60	27		47			92				47	92
LPT	20				78	20	19	52	30	42	67	68	73	20	41	69
Polio	45				63	20	19	52	30	42	67	68	73	45	41	69
Measles	6				93	25	22	38	30	41	70	60	70	6	36	67
Average	24				74	23	20	47	30	42	74	65	72	24	42	74
Botswana																
BCG	70	80	78	84	70	68	68	49	55	48	90			76	51	90
DPT	70	64	82	71	79	68	64	66	89	89	86	86	82	72	88	85
Polio	45	71	77	69	68	67	60	88	89	88	82	82	82	64	88	82
Measles	63	68	75	76	71	69	62	91	83	80	78	76	65	69	85	74
Average	62	71	78	75	72	68	64	79	79	76	84	82	78	70	78	83
Burkina Faso																
BCG		16				17	52				95			16		95
DPT	2	2	2			9	36	34	30	49	37	38	39	2	38	38
Polio	2	2	2			9	36	34	30	49	37	38	39	2	38	38
Measles	23	23	23			40	68	68	49	72	42	36	41	23	63	40
Average	9	11	9			19	48	45	36	57	53	37	40	11	48	53
Burundi																
BCG		65		37			68	85		98	97			65	92	97
DPT	38	38		27		36	50	73	54	82	86	83	80	38	70	83
Polio	6	6		20		29	61	76	54	82	86	89	80	6	71	85
Measles	30	30		45		42	57	58	41	73	75	75	70	30	57	73
Average	25	35		32		36	59	73	50	64	86	82	77	35	72	85
Cameroon																
BCG		8		48	49				26		74			8	26	74
DPT	5	5	20	25	27	84	45	45	45	53	56	34	37	10	48	42
Polio	5	5	6	25	26	64	42	43	43	51	54	34	37	5	46	42
Measles	16	16	47	25	31	41	44	44	44	48	56	35	37	26	45	43
Average	8	8	24	30	33	58	44	44	40	51	60	34	37	12	41	50
Cape Verde																
BCG						64	93	100	100		97				100	97
DPT				23		39	54	92	88		88				90	86
Polio						39	60	87	85		87				86	87
Measles						54	59	75	78		79				77	79
Average				23		49	67	89	88		88				88	88
Central African Rep.																
BCG	17	26	24	29	32	34	37	35	43		94			22	39	94
DPT	13	11	21	16	17	24	24	24	24	59	82	25	77	15	36	61
Polio	13	11	21	16	17	24	24	24	24	56	82	26	77	15	35	62
Measles	12	15	19	16	18	30	30	30	30	62	82	25	62	15	41	56
Average	14	18	21	19	21	28	29	28	30	59	83	25	72	17	38	68
Chad																
BCG								34			50				34	50
DPT				1		3	3	12	14	20	20	12	17		15	16
Polio						3	3	12	14	20	20	12	17		15	16
Measles						7	7	33	17	32	32	21	41		27	31
Average				1		4	4	23	15	24	31	15	25		23	29
Comoros																
BCG					56		61	91			99				91	99
DPT					31		29	71							71	
Polio					32		24	73							73	94
Measles					42	18	26	71			94				71	87
Average					40	18	35	77			93				77	93
Congo																
BCG		92		90	80	89					90			92		90
DPT	42	42	42	50	53	59	65	71	71	79	79	74	74	42	74	76
Polio	42	42	42			59	71	71	71	79	79	74	74	42	74	76
Measles	49	49	49	59	54	52	86	69	73	75	75	64	64	49	72	68
Average	44	58	44	66	62	65	74	70	72	78	81	71	71	56	73	77
Cote d'Ivoire																
BCG										39	68				39	68
DPT		42	42		19	11	11	71	32	42	48	37	47	42	48	44
Polio		42	34			11	11	71	32	42	48	37	47	38	48	44
Measles		41	28			31	31	85	30	41	42	47	51	35	52	47
Average		42	35		19	18	18	76	31	41	52	40	48	38	47	51
Equatorial Guinea																
BCG						28					55					55
DPT						3										
Polio						4					20					20
Measles						11					36					36
Average						12					37					37
Ethiopia																
BCG		5	6	7	8	11	13	28	27	30	90			8	28	90
DPT	6	6	6	4	4	6	6	16	16	26	44	21	13	6	19	26
Polio	6	7	6	4	4	8	6	15	18	26	44	21	13	6	19	26
Measles	7	7	7	7	8	12	9	13	13	33	37	17	10	7	20	21
Average	6	6	6	6	6	9	9	18	18	29	54	20	12	6	22	41

F-16
VACCINATION COVERAGE

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	Average 1980-82	Average 1987-89	Average 1990-92
Gabon																
BCG						50	80	90	95	96	92					
DPT				14		14	48	48	68	65	78	78	78		94	92
Polio						44	48	48	68	65	78	78	78		60	78
Measles						58	55	55	71	68	76	76	76		60	78
Average				14		42	58	60	76	74	81	77	77		65	75
Gambia, The																
BCG		99				92		96			99					
DPT		80		48		77	72	77						99	96	99
Polio		69				55		82						80	77	
Measles		71				75					93			69	82	93
Average		80		48		75	72	85			85			71	82	93
Ghana																
BCG	9	67	51	31					94		85				42	94
DPT	7	22	23	19		23	14	37	33	51	57	39	34		17	40
Polio	7	25	25	17		18	13	34	33	51	56	39	36		19	39
Measles	16	23	21	1		83	45	51	47	65	60	39	40		20	54
Average	10	34	30	17		41	24	41	52	56	65	39	37		25	57
Guinea																
BCG							5			17	53					
DPT							2			7						53
Polio							9			7		35	52		7	44
Measles		15	77				1		17	7	18	35	52		7	35
Average		15	77				4		17	10	29	34	51		46	17
Guinea-Bissau																
BCG					42	33	89	98			90				98	90
DPT			24	9	18	16	11	47			38	63	66		24	47
Polio			14		4	15	11	48			38	63	65		14	48
Measles			30			30	34	60			42	52	60		30	60
Average			23	9	21	24	36	63			52	59	64		23	63
Kenya																
BCG						82	70				80					80
DPT						70	72					74	85			80
Polio						63	65					59	71			85
Measles						70	72					71	85			72
Average						71	72					70	84			70
Lesotho																
BCG		81		98			75			79	95				81	79
DPT		56	56	65		65	82	77	77	77	78	75	58		56	77
Polio		54	54	80		65	80	77	77	77	78	75	58		54	78
Measles		49	49	73		63	73	79	79	75	78	76	80		49	78
Average		60	53	79		64	78	78	78	78	81	75	65		60	78
Liberia																
BCG		87					41	41	62						87	52
DPT	39	39	16	23		43	25	28	28	28			28		31	28
Polio	26	26	11			42	25	28	28	28			28		21	28
Measles	100	98	56			44	50	55	55	55			61		85	55
Average	55	63	28	23		43	35	38	43	37			39		56	41
Madagascar																
BCG	21	25	22	31	28	31	47	36	54	77	68				23	56
DPT	35	40	38	23	19	35	30	30	40	45	46	50	32		38	38
Polio	3		4	11	21	3	30	24	38	42	46	49	32		4	35
Measles					1	0	10	10	35	40	33	40	27			28
Average	20	33	21	22	17	17	29	25	42	51	48	48	30		21	39
Malawi																
BCG	89	86	93	94	74	87	98	92	96		97				93	94
DPT	58	64	52	63	54	52	70	70			81	81	86		58	70
Polio	28	57	37	58	53	48	56	70	89		79	78	84		41	80
Measles	49	64	64	58	50	49	56	78	89		79	78	82		59	84
Average	59	68	62	68	58	59	70	78	81		84	79	84		63	82
Mali																
BCG		19					15	21	64	85	82				19	57
DPT							3	6	18	28	42	34	34			17
Polio							5	8	23	40	43	34	34			24
Measles							3	8	18	26	42	39	41			17
Average		19					7	10	31	44	52	38	36			41
Mauritania																
BCG		57						77			83				19	28
DPT	18	18	18			21	21	32	28	28	28	26	34		18	29
Polio	18	18	18			21	21	61	28	28	28	26	34		18	29
Measles	45	45	45			59	59	69	45	45	33	29	39		45	53
Average	27	35	27			34	34	60	34	34	43	27	35		35	50
Mauritius																
BCG	89	87	88	88	88	79	88		91	94	91				88	93
DPT	87	82	94	89	83	85	86		80	90	90	91	91		88	90
Polio	87	82	94	89	83	85	84		90	90	90	91	91		88	90
Measles			34	53	44	81	75		75	83	75	88	87		34	79
Average	88	84	78	80	75	78	83		87	89	85	90	90		74	88
Mozambique																
BCG		46	56	59	49	47	45	52	49		59				51	51
DPT		56	20	38	32	32	32	51	38	39	46	42	53		38	43
Polio		32	20	38	32	32	32	38	38	39	48	42	53		26	38
Measles		32	25	51	50	46	49	48	44	48	58	50	60		29	46
Average		42	30	47	41	39	40	47	42	42	52	45	55		36	44

F-17
VACCINATION COVERAGE

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	Average 1980-82	Average 1987-89	Average 1990-92
Niger																
BCG		28	28				27	28	39	25	50	26	40	28	31	39
DPT		8	6				4	5	16	12	13	17	21	6	11	17
Polio		6	6				23	4	16	11	13	17	21	6	10	17
Measles		19	19				49	27	24	12	21	23	28	19	21	24
Average		15	15				26	16	24	15	24	21	28	15	18	24
Nigeria																
BCG	23	23	26		12	23	23	23	23	23	23	57	50	24	23	43
DPT	24	58	24		5	24	24	24	24	24	24	44	31	35	24	33
Polio	24	57	24		3	24	24	24	24	24	24	44	30	35	24	33
Measles	55	59	20		17	55	55	55	55	55	55	46	36	45	55	46
Average	32	49	24		9	32	32	32	32	32	32	46	37	35	32	39
Rwanda																
BCG	51	51				73	86	85	91	92	92	94	94	51	89	93
DPT	17	17		59		44	67	78	80	84	84	95	85	17	81	85
Polio	15	15				50	72	80	78	83	83	85	85	15	80	84
Measles	42	42				45	55	63	79	83	83	81	81	42	75	82
Average	31	31		59		53	70	77	82	86	86	86	86	31	81	86
Sao Tome and Principe																
BCG		95			82	75	99		88		92			95	88	92
DPT		42		26	49	42	65		77					42	77	
Polio		25			48	35	58		69		51			25	69	51
Measles		18			48	45	66		72		88			18	72	68
Average		45		26	57	49	72		77		70			45	77	70
Senegal																
BCG						32				88	95				88	95
DPT						54				67		51	47		67	49
Polio						40				64	75	51	47		64	58
Measles						54				7	74	46	43		67	54
Average						45				7	81	49	46		72	64
Seychelles																
BCG		67				95	92	94	94		98			67	94	98
DPT		13			95	86	94	89	97		82			13	93	82
Polio		29			77	90	95	100	89		86			29	95	86
Measles		16			95	86	94	89	97		99			16	93	99
Average		31			89	86	84	93	94		91			31	94	91
Sierra Leone																
BCG	36	35	30			45	80	73	73	74	98	71	89	34	73	86
DPT	13	15	12			9	21	30	25	34	83	56	72	13	30	70
Polio	36	13	10			12	21	30	25	34	83	57	72	20	30	71
Measles	7	28	23			21	66	50	38	37	75	54	65	19	42	65
Average	23	23	19			22	47	46	40	45	85	60	75	22	44	73
Swaziland																
BCG		59		77	73	79	74			96				59	96	
DPT		30		49	50	61	73			89				30	89	
Polio		30		41	43	49	66			85				30	85	
Measles		22		49	49	59	72			89				22	89	
Average		35		54	54	62	71			90				35	90	
Tanzania																
BCG	84	78	55	63	71	53	82	95	94	93	93	89	89	72	94	94
DPT	58	58	58	50	51	46	62	81	81	85	85	79	84	58	82	83
Polio	56	49	56	49	47	46	62	80	81	82	82	74	83	54	81	80
Measles	82	76	37	60	55	58	67	78	88	83	83	75	82	65	83	80
Average	70	65	52	61	58	51	68	84	86	86	86	78	87	62	85	84
Togo																
BCG		44	60			55	66	66	95	91	94	79	74	52	84	82
DPT		9	36			11	41	41	62	55	61	61	53	23	53	58
Polio		9	25			11	40	40	60	55	61	61	47	17	52	56
Measles		47	53			11	48	48	74	62	57	51	29	50	61	46
Average		27	44			22	49	49	73	68	68	63	51	35	62	61
Uganda																
BCG	18	18	7			18	51	74	77	77	99	100	98	14	76	99
DPT	9	9	3	14		8	21	39	40	40	77	76	72	7	40	75
Polio	8	8	4			8	21	40	41	41	77	76	72	7	41	75
Measles	22	22	4			22	33	48	49	49	74	73	70	16	49	72
Average	14	14	5	14		14	32	50	52	52	82	81	78	11	51	80
Zaire																
BCG	34	34	34	65	62	53	45	54	59	54	65	65		34	56	65
DPT	18	18	18	16		46	30	36	41	38	32	32		18	38	32
Polio	18	18	16	68	30	46	30	36	41	38	31	31		18	38	31
Measles	20	23	22	30	66	58	30	39	44	40	31	31		22	41	31
Average	23	23	23	44	53	51	34	41	46	43	40	40		23	43	40
Zambia																
BCG	42	72	82		71	82	62	92	92	92	97	97	83	65	92	92
DPT	71	44	47	83	59	48	46	66	83	83	79	79	57	54	77	72
Polio	21	77	44		50	48	46	61	81	81	78	78	59	47	74	72
Measles	72	21	55		49	55	55	56	80	80	76	76	56	49	73	69
Average	52	54	57	83	57	57	57	69	84	84	83	83	64	54	78	76
Zimbabwe																
BCG	64	64	64		69	76	76	86	89	80	71	87	79	64	85	79
DPT	39	39	38	30	60	63	63	77	79	76	73	83	73	39	77	76
Polio	38	38	37		61	63	63	77	75	75	72	81	73	38	76	75
Measles	56	56	55		62	53	53	73	22	70	69	83	72	56	55	75
Average	49	49	40	30	63	64	64	78	66	75	71	84	74	49	73	76

PRIMARY NET ENROLLMENT RATIOS

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	Average 1980-82	Average 1987-89	Average 1990-91
Angola		70	66												
Benin				52	53	53		50	53	45				68	
Botswana	76			85	86	91	95	97	97	97					49
Burkina Faso	18	19	20	22	22	25	26	27	28		96	98	76	97	97
Burundi	20	25		35	39	41	46				29		19	20	29
Cameroon								76		76			23		
Cape-Verde	90		84	89	90	93	94	97		95				76	
CAR	56		60			61	51	48	48	56			87	98	
Chad								38					58	51	
Comoros						61	56							38	
Côte d'Ivoire															
Djibouti						32	35	37	37	36		52			52
Ethiopia							27	27	28		36	37		37	37
Gambia	48	54	58	62	68	62				53	52			28	
Guinea				23	26	27	22	23	26	28			53	53	52
Guinea-Bissau	59	56	55	53	53		46	45						25	
Kenya	91	89											57	45	
Lesotho	66		71	71	72	73							80		
Madagascar								90	86	64				72	70
Malawi	43		44	42	44	43	48	45	48	50	48			73	
Mali	20	16	16	15	18		19	18			19	15	44	48	48
Mauritania					33								17	18	17
Mauritius	84	85	99	98		94	92	94	95	95	82	89	93	95	91
Mozambique	36	36	49	48		51	49	45		44		44	40	45	44
Niger	21					25			24	24	25		21	24	25
Rwanda	59	61	59	59	58	61	62	66	68	67	67		60	67	67
Senegal	37	39	41	43	44	48		49	49	48			39	49	
Somalia	14	21	14	14	12	8							16		
Swaziland	81	88	86	84	85	82	81	81	82	82	85	88	84	82	87
Tanzania	68	66	61	60	57	53	52	50	52	52	51	50	65	51	51
Togo		79	76	69	67		73	72	72	73	76		78	72	76
Uganda		38	40				55								
Zaire			75	75				58					39		
Zambia	77			86	81				81				75	58	
Zimbabwe			100		100		100						77	81	
													100		

PRIMARY SCHOOL PUPIL-TEACHER RATIO

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	Average 1980-82	Average 1987-89	1990
Angola		31.5	36.8	31.8	29.8	31.3	33.4	32.6	33.4		31.9	34.1	33.0	31.9
Benin	47.5	39.0	37.8	35.3	33.5	33.0		33.4	34.9		34.7	41.4	34.2	34.7
Botswana	32.3	31.6	32.4	31.2	30.9	32.0	32.2	32.3	32.3	32.3	31.7	32.1	32.3	31.7
Burkina Faso	54.5	59.8	60.3	57.7	56.5	57.8	67.6	64.8	57.4	55.2	56.7	58.2	59.1	56.7
Burundi	36.6	39.3	47.1	52.3	54.3	56.2	62.3	76.4	68.9	65.9	66.9	41.0	70.4	66.9
Cameroon	51.5	50.5	48.6	50.4	51.0	50.8	50.3	51.3		51.5		50.2	51.4	
Cape Verde	40.1			38.6		38.8	33.6	33.2	33.0	33.4		40.1	33.2	
Central African Republic	59.6	60.6	62.1	66.3	83.9	65.6	60.3	62.8	70.4	90.4		60.6	74.5	
Chad					64.2	70.7			68.4	67.2			67.8	
Comoros	46.2		38.0	38.5	31.2	34.6	34.5	36.4				42.1	36.4	
Congo	54.4	58.1	57.7	56.8	60.7	61.4	63.8	66.1	63.0	64.4	65.9	56.7	64.5	65.9
Cote d'Ivoire	38.7	36.5	36.3	35.8	36.5	36.3	36.0	36.3	37.1	36.3	36.3	37.1	36.5	36.3
Djibouti	40.2	49.5	48.3	44.0	44.1	49.0	48.5	48.7	43.9	43.5	42.7	46.0	45.3	42.7
Ethiopia	63.9	62.7	59.3	53.6	50.0	48.1	48.3	49.4	43.3	40.7	36.1	62.0	44.4	36.1
Gabon	45.1	45.5	43.8	45.3	46.6	45.8	46.8	46.1				44.8	46.1	
Gambia	24.0	23.1	22.9	24.8	25.1	23.2	28.8		28.3	30.7		23.3	29.5	
Ghana	28.8	28.3	28.0	27.1	26.1	23.2	23.8	23.9	25.9	27.1	29.1	28.3	25.6	29.1
Guinea	36.0	32.4	31.4	31.3	36.2	36.3	36.0	39.9	38.6	38.2	39.9	33.2	38.9	39.9
Guinea-Bissau	22.9	22.6	22.1	22.7	24.7		24.7	24.8				22.5	24.8	
Kenya	38.3	35.9	36.4	36.7	35.7	34.0	33.9	33.7	32.9		31.3	36.9	33.3	31.3
Lesotho	48.0	48.4	52.5	51.1	52.7	55.5	55.3	56.4	55.6	55.6	54.5	49.7	55.9	54.5
Liberia	16.2											16.2		
Madagascar	43.7	41.0	38.8	38.3	38.3			39.7	40.5	39.9	40.3	41.2	40.0	40.3
Malawi	64.6	67.3	63.3	58.4	60.2	61.0	63.4			64.4		65.1	64.4	
Mali	42.4	40.1	37.4	35.1	34.8	34.0	34.9	37.0		38.6	41.8	40.0	38.2	41.8
Mauritania	41.5	43.7	44.7	45.4	46.3	50.6	49.8	49.7	48.8			43.3	49.3	
Mauritius	20.2	20.4	20.7	21.1	20.9	21.8	22.7	22.2	21.9	21.8	21.1	20.4	21.9	21.1
Mozambique	81.5	68.6	61.2	56.0		61.5	60.7			57.6		70.4	57.6	
Niger	41.5	42.1	40.3	39.5	35.7	37.4	38.2		40.5	40.7	42.1	41.3	40.6	42.1
Nigeria	37.2	37.0	36.2	40.0	42.1	44.1		37.3	41.2	37.0	41.0	37.5	38.5	41.0
Senegal	45.8	42.8	43.6	41.2	46.1	46.5	50.8	53.6	51.2	57.6		44.0	54.1	
Sierra Leone	33.1	34.6	33.5	33.7	34.1	38.9		31.0	30.1	34.7	33.9	33.7	31.9	33.9
Somalia	33.5	28.6	21.7	23.3	20.4	19.0						27.9		
Sudan	33.7	32.8	33.5	33.5	34.3	34.7	35.1				34.0	33.4		34.0
Swaziland	34.2	33.4	33.3	33.1	33.3	33.9	33.2	33.1	32.8	32.2	32.8	33.6	32.7	32.8
Tanzania	41.5	43.3	39.8	39.7	38.2	34.2	33.3	33.1	33.0	33.1	34.6	41.5	33.1	34.9
Togo	55.1	51.8	48.2	45.1	44.4	46.1	50.3	51.7	54.6	55.6	58.7	51.7	54.0	58.7
Uganda	33.6	34.8	36.4	35.2	33.8	34.5	30.1	33.3	34.6			34.9	34.1	
Zaire				41.5			38.6							
Zambia	48.6	48.2	47.9	46.5	46.8	49.4	45.6	45.6	44.1			48.2	44.8	
Zimbabwe	43.9	45.4	41.9	38.9	39.4	39.5	38.8	39.4	38.2	38.2	35.8	43.7	38.6	35.8

202

ILLITERACY RATES (Total x % of Population age 15+)

	1980	1985	1990	% Change 1980-85	% Change 1985-90	% Change 1980-90
Angola		64.3	58.3		-9.3	
Benin (1)	84.0	81.3	78.6	-3.2	-5.8	-8.8
Botswana		30.0	26.4		-12.0	
Burkina Faso		85.5	81.8		-4.3	
Burundi	73.2	57.9	50.0	-20.9	-13.6	-31.7
Cameroon		52.0	45.9		-11.7	
Cape Verde	52.6					
Central African Republic	67.0	68.5	62.3	2.2	-9.1	-7.0
Chad		77.0	70.2		-8.8	
Comoros	52.1					
Congo		48.3	43.4		-10.1	
Cote d'Ivoire	65.0	51.3	46.2	-21.1	-9.9	-28.9
Gabon		43.9	39.3		-10.5	
Gambia, The	79.9	79.7	72.8	-0.3	-8.7	-8.9
Ghana		47.2	39.7		-15.9	
Guinea		83.2	78.0		-8.7	
Guinea-Bissau (1)	80.0	69.8	63.5	-12.7	-9.0	-20.6
Kenya	52.9	35.0	31.0	-33.8	-11.4	-41.4
Lesotho		26.4				
Liberia	74.6	67.7	60.5	-9.2	-10.6	-18.9
Madagascar		23.1	19.8		-14.3	
Malawi		58.8				
Mali		77.3	68.0		-12.0	
Mauritania		72.5	66.0		-9.0	
Mauritius		17.2				
Mozambique	72.8	72.4	67.1	-0.5	-7.3	-7.8
Niger		78.5	71.6		-8.8	
Nigeria		57.3	49.3		-14.0	
Rwanda (2)	62.0	53.0	50.0	-14.5	-5.7	-19.4
Senegal		67.9	61.7		-9.1	
Sierra Leone		86.7	79.3		-8.5	
Somalia		83.1	75.9		-8.7	
Sudan		75.6	72.9		-3.6	
Swaziland		32.1				
Togo	82.0	62.1	56.7	-24.3	-8.7	-30.9
Uganda		57.2	51.7		-9.6	
Zaire		34.1	28.2		-17.3	
Zambia	47.5	32.8	27.2	-31.4	-16.6	-42.7
Zimbabwe		37.7	33.1		-12.2	

E-20

1/ 1979 INSTEAD OF 1980

2/ 1979 INSTEAD OF 1980

SOURCE: WORLD BANK SOCIAL INDICATORS OF DEVELOPMENT, DATA ON DISKETTE

BEST AVAILABLE DOCUMENT

one