

THE AFRICA BUREAU BASIC EDUCATION ACTION PLAN

Bureau For Africa  
Office of Technical Resources  
Education and Human Resource Division

Drafted by:  
Norman Rifkin  
Victor Barnes  
Susan Stoddart

THE AFRICA BUREAU BASIC EDUCATION ACTION PLAN

I.	Introduction	1
II.	Rationale For Investment in Basic Education	1
	A. Basic Education and Economic Growth	
	B. Effects of Schooling on Productivity	
	C. Social Rates of Return	
	D. Effects of Schooling on Income Distribution	
	E. Sector Benefits: Health, Nutrition, and Population	
III.	The Status of Basic Education in Africa	6
	A. Funding Educational Expansion	
	B. Enrollment Stagnation	
	C. Declining Educational Quality	
IV.	Agenda For A.I.D. Action	9
	A. Program Assistance	
	B. Project Development	
V.	Country Selection	12
Annex I		15
	A.I.D. Support to Primary Education in Africa	
Annex II		17
	Donor Assistance to the Education Sector	
Annex III		20
	Case Studies: A.I.D.'s Experience in Education Assistance	
Annex IV		22
	Effects of Education of Females on Selected Indicators	
Annex V		30
	Selected Indicators for A Sampling of African Countries	

## I. Introduction

The Africa Bureau Action Plan for Basic Education provides a rationale for investment in basic education.\* The plan reviews economic evidence supporting investment in the education sector. It highlights the positive correlation between investment in education and increased agricultural productivity, improved health status, and reduced rates of population growth.

The plan reviews the status of basic education in Africa and defines an Agenda for A.I.D. Action. It summarizes A.I.D.'s experience in assistance to basic education and provides an overview of other donor assistance to the sub-sector. Supplemental data are provided in attached annexes.

The objective of this action plan is to: (i) provide a rationale for investment in the sub-sector and (ii) outline a strategy for investment in basic education. The plan includes a decision matrix that ranks countries for investment and suggests appropriate assistance options based on educational need and policy performance. It is intended that the plan serve as guidance to our field missions as to why, when, and how they should become involved in the education sector.

## II. The Rationale for Investment in Basic Education

The evidence for development payoffs to education is of four principal sorts, each providing corroboration for the other. The first considers the positive influence of education on the growth rates of national economies, the second details \*\*social rates of return to investment in education, the third discusses the relationship between education and productivity in the labor market, and the fourth examines the relationship between education and sectoral benefits such as lowered fertility rates and improved health.

---

\*We use the term basic education in this paper to refer to formal education of children between the ages of 6 and 14. We refer to primary education in lieu of basic education when using data that refers specifically to that sub-sector.

\*\*The social rate of return on an investment is an economic measurement of the benefits that accrue to society through an investment. In the case of education investments, the measurement determines how much a society benefits from educating its population. The measurement includes increased productivity as well as social benefits such as improved health and better living standards.

### A. Basic Education and Economic Growth

There are two types of evidence that demonstrate education's importance to macroeconomic development; the first type is derived from "growth accounting" literature that explains growth of outputs through growth in capital stocks, growth in the labor force, and expansion of educational investments. Three such analyses from African countries rendered the following data: 16 percent of output growth in Nigeria was attributed to investment in education; 23 percent in Ghana, and 12 percent in Kenya. (source: Education Policies for Sub-Saharan Africa: Adjustment, Revitalization, and Expansion, The World Bank, 1988.)

The second type of macroeconomic evidence explains differences in economic growth rates across countries in terms of differences in their patterns of investment in education. Recent World Bank macroeconomic analyses indicate that investments in education at all levels were found to contribute to economic growth with imputed rates of return substantially in excess of those to physical capital investments. Furthermore, The World Development Report 1980 found that increases in literacy contribute both to increased investment and to increased output per worker.

### B. Effects of Schooling on Productivity

A review of 18 studies of farmer education and farmer productivity in 13 developing countries concluded that farmers who have completed four years of schooling produce, on average, eight percent more farm output than their non-educated counterparts. When new crop varieties are available and innovative planting and fertilizing methods are also present, the increase in productivity is approximately 10 percent. (source: Is The School The Enemy of the Farm?, J. Hanson)

Schooling has other cognitive and noncognitive effects on productivity. The former is the development of a capacity to think and learn, and in more sophisticated terms, to analyse and apply theoretical knowledge. The latter explains receptivity to new ideas, competitiveness, and willingness to accept structure and discipline. Both sets of effects have a positive influence on productivity and development.

Examination of donor experience over the past twenty years reinforces research findings that indicate that the probability of project success in any sector increases as the target population becomes more educated. In some cases, education is the key variable affecting project success.

C. Social Rates of Return

Social rates of return to primary education are consistently high. A survey of 16 African countries found that the social rate of return to investment in primary education is 26 percent. By comparison, capital investments for development are considered sound, if the social rate of return is 12 percent or above. Even when certain caveats are considered and the rate adjusted, returns to primary education are substantial and compare favorably with other investment options (see Table 1).

---

TABLE 1

Rates of Return To Education

	Primary	Secondary	Number of countries
All developing countries	24.2%	15.4%	30
Low income and literacy	27.3%	17.2%	11
Middle income and literacy	22.2%	14.3%	19
Industrialized countries	----	9.1%	14

(Source; World Development Report 1984)

---

D. Effects of Schooling on Income Distribution

Education results in more equal distribution of earnings. As the educational system expands, access to schooling increases for the rural population, the poor, and girls. This in turn, gives school graduates more access to higher socio-economic levels through modern sector employment. Research in Kenya and Tanzania compared two approaches to expansion of educational systems and their impact on income distribution. Kenya allowed education enrollments to expand with demand, whereas Tanzania tightly controlled its expansion. Kenya's policy resulted in substantially greater equity in the distribution of earnings and, in addition, expanded access to girls and rural populations. In Tanzania, access to schooling remained restricted and income distribution was unchanged.

E. Sector Benefits: Health, Nutrition, and Population

There is a strong positive correlation between the education of females and (i) improvements in health and (ii) reduced population growth rates. Even if most girls do not enter the labor force, the majority become mothers; their attitudes, much more than those of the fathers, influence the decision to have children. Mothers also have primary responsibility for their children's health, and for their cognitive and physical development. There is a strong negative relationship between the level of women's education and the number of children they choose to bear. Women who are educated tend to delay getting married. In 10 out of 14 developing countries studied, a woman with seven or more years of education marries at least 3.5 years later than a woman who has never been to school. This behavioral change is the result of the long-term effects of education on family formation decisions and of the indirect effects on child survival and women's employment opportunities.

In addition to having fewer children, more educated individuals live healthier and longer lives. This occurs partly because of the effect of education on family income and partly because of its effects on parents' knowledge of and use of good health and nutritional practices.

There is a consistent positive relationship between parental education and child survival. Research indicates that the marginal addition of one year to a mother's schooling reduces child mortality by nine deaths per 1,000 live births. The data from The World Fertility Survey conducted between 1972 and 1984 further support these research findings:

TABLE 2  
Effects of Women's Education on Infant Mortality

	*Deaths of Infants Under One Year				Deaths of Children Age One to Five			
	Years of Education				Years of Education			
	0	1-3	4-6	7+	0	1-3	4-6	7+
Benin	127.5	91.6	57.6	37.0	83.3	78.7	62.0	29.9
Cameroon	115.7	88.3	82.7	63.7	68.9	46.7	42.7	35.5
Ghana	77.3	62.2	65.5	69.7	43.1	40.3	14.0	20.5
Ivory Coast	132.2	151.7	109.7	71.3	50.5	24.9	22.2	30.6
Kenya	103.9	89.3	82.0	69.9	42.5	35.4	27.3	22.1
Lesotho	149.0	133.5	129.6	118.2	38.7	27.6	30.0	17.9
Mauritania	82.9	91.5	56.0	81.1	86.3	64.1	16.5	17.9
Nigeria	96.8	74.7	71.3	53.9	179.3	124.0	125.9	93.0
Senegal	121.1	71.1	94.3	30.9	114.4	16.7	17.1	27.4
Sudan	79.7	87.8	83.4	57.7	46.3	23.9	15.8	7.9

The World Fertility Survey: The UNFPA and A.I.D.

\*Rates are deaths per 1000 live births.

Another effect of parental schooling is that children acquire learning skills from the home environment. Intellectual skills and learning habits acquired by adults throughout their lives and through their own education are transmitted to their children in the home. Studies have shown that children of more educated parents are more likely to be enrolled in school, are more successful in school, and achieve higher levels of education than their counterparts from less educated families.

III. The Status of Primary Education in Africa:  
Expansion and Decline

Sub-Saharan Africa has made significant progress in the aggregate expansion of its educational system in the past twenty years. Between 1970 and 1980 alone, total enrollments for the sub-continent grew at an average annual rate of 8.9 percent. As a result of this expansion, 40 percent of the current labor force has had some basic schooling.

However, the capacity of African states to meet the financial, administrative, and academic requirements of an expanding educational system is threatened by stagnating economies and by a demographic profile that is the youngest in the world (one in three persons is of primary or secondary school age compared to one in five in Latin America and Asia, and one in six in industrialized countries). The projected rate of increase in the school-age population over the next ten years is 3.3 percent.

TABLE 3

Primary School-Age Populations and Enrollments  
for 1983 and for 2000 (projected)

	<u>1983</u>	<u>2000</u>	<u>% Change</u>
<u>School age population</u> (millions)	68.5	120.9	76%
<u>School Enrollment</u> (millions)	51.3	(1) 90.7 (2) 120.9 (3) 131.8	77% 136% 157%

(1) Gross enrollment ratio same as 1983

(2) 100% Enrollment with no dropout/repetition

(3) 100% Enrollment with dropout/repetition same as 1983

(Source: The World Bank Development Report 1987)

There were 51.3 million primary school places in Africa in 1983. The number of school places would have to increase to 90.7 million by the year 2000 in order to maintain 1983 enrollment levels. Approximately 132 million new primary school places will need to be created if Africa is to reach its target of universal primary education by the year 2000. This is a 157 percent increase in enrollment capacity over a twelve year period.

Moreover, this increase in system capacity, at least at grade one, must occur over the next four years. The graduating class of 2000 will be born this year and the number of students who begin their studies in 1992 provide an estimate of the maximum number of graduates in the year 2000.

A. Funding Educational Expansion

As a result of the stagnation of many African economies and the rapid growth of the school-age cohort, continued expansion of educational systems is in jeopardy. (see Table 4)

---

TABLE 4

Cost Implications of Maintaining 1983 Enrollment Rates  
Through the Year 2000

Enrollments and Recurrent Expenditures in 1983

Primary	51.3 million pupils	\$2.6 billion
Secondary	11.1 million pupils	\$2.8 billion
Total	62.4 million pupils	\$5.4 billion

Projected Enrollments and Recurrent Expenditures in 2000

Primary	90.7 million pupils	\$4.5 billion
Secondary	19.7 million pupils	\$4.9 billion
Total	110.4 million pupils	\$9.4 billion

	<u>Increment of Recurrent Expenditure</u>	<u>Annual Capital Investment</u>
Primary	1.9	.5
Secondary	2.1	.9
Total	4.0	1.4

(Source: The World Bank Development Report 1987)

---

Many countries are unable to maintain current levels of access or of instructional quality.

The recurrent costs necessary to maintain 1983 primary school enrollment levels over the next fifteen years will increase to \$4.5 billion annually by the year 2000. This increase assumes that per pupil expenditures remain at 1983 levels in constant dollar terms (approximately \$50 per pupil at the primary school level). In addition, capital outlays to finance construction of new classrooms, and maintenance and improvements of existing structures and equipment, would require an estimated \$11 billion.

#### B. Enrollment Stagnation and Decline

In contrast to population growth rates, growth rates in school enrollments have been falling over the past few years. During the first three years of the 1980s, the growth rate in enrollments declined from 8.9 percent to 4.2 percent. The decline was most pronounced at the primary school level where the rate fell from 8.4 percent between 1970 and 1980 to 2.9 percent between 1980 and 1983. In half of the 39 countries of the sub-continent, the growth rate of the school age population exceeds that of the growth rate of primary school enrollments. In four cases (Angola, Togo, Mozambique, and Somalia), absolute enrollments at the primary level fell between 1980 and 1983.

#### C. Declining Educational Quality

In recent years, the quality of educational offerings and the level of cognitive achievements for African students have declined. The evidence to support this claim is based on the availability of books and learning materials; and on management and maintenance of capital assets.

When expenditures per student at the primary school level are used as an aggregate proxy measurement for educational quality, Africa ranks quite low. In 1980, industrial market economies were spending over \$2,200 per student while Africa was spending about \$67 (East Asia spent approximately \$190 and Latin America spent \$155).

Not only are expenditures in Africa low relative to other continents, but given increasing budgetary pressure from expanding enrollment, it is unlikely that the situation will improve in the near future. Recurrent expenditures per student at the primary level, expressed in 1983 constant dollars, fell from \$67 to \$50 per student for the period 1980 to 1983.

In addition, teachers' salaries and benefits (already low and in some cases insufficient) account for 91 percent, on average, of recurrent expenditures for primary education. Expenditures on texts and learning materials account for approximately 1.1 percent of recurrent budget allocations, less than 60 cents per student per year. With this paucity of funding for learning materials, educational quality is not likely to improve or even be maintained.

#### IV. Agenda for A.I.D. Action

The nature of the Africa Bureau's support to basic education will be determined by (i) educational need, (ii) by the level of host government commitment to supplying quality education to its citizens and (iii) by the country's receptivity to educational reform. Using a decision matrix which examines education enrollment statistics, internal efficiency data, and macro-economic and education sector performance indicators, the Bureau has targeted two groups of potential beneficiary countries:

1. Countries that have demonstrated greatest educational need while at the same time maintaining reasonable economic performance and willingness to implement educational policy reform, and;

2. Countries that have had good performance in both the education and economic sectors but still have not achieved national efficiency/access goals.

The Bureau will use both program assistance and project support in its efforts to assist African countries in meeting national educational requirements.

#### A. Program Assistance

The lack of financial resources to support the education sector is the primary constraint to system expansion and to quality education in most of the countries with greatest demonstrated need. In these countries, A.I.D. should offer program support in the form of targeted budget support, combined with policy linked conditionality. Local currency generation for education support, ESF funded activities, commodity import programs, and direct development assistance financing of sector programs are all appropriate intervention options for these countries. In conjunction with, and in some cases, as a condition of financial support, A.I.D. will seek to motivate African officials to move toward implementing the following types of policy reform:

1. Decentralization of School Administration

A.I.D. encourages decentralization of school administration through the delegation of decision-making authority to the regional, district, and local levels. The goal of administrative decentralization is to make school systems more responsive to local needs including parental concerns and to give school officials and community groups more control over administrative matters and academic programs.

2. Diversification of Sources of School Finance

The Africa Bureau supports education cost recovery efforts through diversifying sources of school finance. Local communities should begin to absorb a more substantial portion of recurrent costs through cost-sharing. At the primary school level, encouraging and facilitating local or NGO efforts at construction, finance, and school operation would help to relieve the national budget and make management more responsive to local needs. Encouraging students to provide non-instructional, in-kind services such as grounds maintenance would also be a source of budgetary relief. In circumstances where cost-sharing has adverse effects on equity or access, compromise solutions need to be found.

3. Non-Public Education

The Africa Bureau supports the expansion of educational opportunities through non-public schools. Governments can increase the number of training and educational opportunities by relaxing restrictions on non-public schools and training institutions. Private schooling increases access and reduces the government's financial burden.

4. Cost Containment and Redistribution of Financial Resources

In conjunction with identifying alternative sources of financing education, and encouraging non-government schools, countries must focus on unit cost containment and on a more efficient allocation of scarce fiscal resources within the education sector. The relative allocation of resources among primary, secondary and tertiary education is an area of policy concern and may require reform of the distribution of financial resources within the sector.

5. Personnel Costs and Teacher Use

Given the high percentage of recurrent budget spent on personnel, it is important to analyze personnel costs and to maximize the way teachers' skills and time are used. More creative use of teaching staff and the use of new technologies are potentially the most fruitful approach for reducing unit costs. Government support of subsidized teacher training and the automatic hiring of graduates of teacher training schools should be examined. This latter practice serves as a disincentive for excellence, and deprives non-public schools of trained teachers.

B. Project Assistance

Many African states have made considerable progress in providing basic education to their citizenry, and are now confronting problems associated with a rapidly increasing demand for education. Concomitantly, government revenues are declining and populations are growing. Consequently, these states are increasingly concerned with educational efficiency and cost containment.

In these "high performance" countries, project-based assistance, particularly technical assistance in educational planning and administration, is appropriate. The U.S. is one of a few countries with a highly decentralized school system and with superiority in the field of educational planning and administration. We also have extensive experience in cost containment and in popular participation in the education process. All of these factors give the U.S. a significant advantage in assisting countries to make their educational systems more efficient and more responsive to national, regional, and local needs.

The following considerations should guide USAID missions in their choice of development assistance projects:

1. Project assistance should focus on improving the cost effectiveness of education systems through better planning, administration, and financial management.
2. Given the United States' advantage in training for school management and administration, and our experience in decentralized public education, combined with the need of African nations to improve efficiency and reduce costs, it is logical that we offer technical assistance in school management and educational planning.

3. Increased access to education is a political imperative that the Africa Bureau strongly endorses. However, in the short-term, it is more important to support growth through improved internal efficiency (reduction of dropouts and repeaters) than through the expansion of staff and facilities. The Bureau does recognize, however, that in some cases assistance to system expansion may be necessary in order to leverage support for needed educational reforms.

4. Quality should not be allowed to deteriorate as school systems expand. Project support for innovative learning technologies (radio assisted teaching, programmed learning, computer based instruction), in conjunction with the use of non-traditional sources of technical assistance (regional and community educators and administrators) to improve system planning, administration, and management, will help maintain quality while the system grows.

5. School quality can also be maintained and improved through pre- and in-service teacher training, and by focusing national budgets on increasing the supply and delivery of learning materials in the classroom.

6. The Africa Bureau recognizes that there are important assistance needs such as school construction and curriculum development which are not specifically supported in this document. There are however, other donors involved in successfully implementing projects in these areas and we, as a Bureau, will cooperate, and where appropriate, collaborate with other donors in these endeavors.

#### V. COUNTRY SELECTIONS

The Africa Bureau is sensitive to the diversity of problems and to the various levels of progress in the African education sector. Consequently, we are aware of the need for a range of assistance approaches, in terms of modes and levels, to meet sector requirements. It is important to offer financial support to those countries with the greatest need, and to continue recognition and support for those countries that have demonstrated strong commitment and performance in delivering quality education.

In order to rank potential beneficiary countries for support to the education sector, the Africa Bureau developed two decision matrices. One matrix considered a range of "need" criteria, and the other, a series of "performance" indicators, sorted by relative need.

A common criterion for both groups was national commitment to educational reform. This factor was weighted heavily among other criteria, in order to mitigate against education assistance to countries that persist in the maintenance of highly centralized, exclusive educational systems.

Program assistance and sector support will be the primary mode of assistance to the "need" countries. In these countries, it is expected that A.I.D will join the World Bank and other donors in working toward structural adjustment in the education sector.

Program assistance may also be appropriate in some of the performance countries, but project-based assistance for planning, management and improved system efficiency will be the primary mode of assistance to this group of countries.

Primary criteria for the selection of need-based countries are:

- (i) good policy environment
- (ii) high level of budget support for primary education
- (iii) poor enrollment growth
- (iv) poor efficiency (low cycle completion rates)
- (v) poor access (low primary enrollment)

Primary criteria for selection of performance-based countries are:

- (i) good policy environment
- (ii) high efficiency (high cycle completion rates)
- (iii) good economic/social policy performance (IPA2)
- (iv) relative need among the performing countries

Assistance to education has important cross-sectoral impact. For that reason, the Africa Bureau considered the level of country involvement in (i) child survival, (II) population and (iii) agriculture, as secondary selection criteria for all countries.

The charts and graphs on the following pages rank each eligible country in terms of both "need" and "performance".

The 12 countries with the greatest need according to selection criteria are the following, in rank order:

1. Malawi
2. Mali
3. Guinea
4. Uganda
5. Ghana
6. Nigeria
7. Togo
8. Niger
9. Liberia
10. Rwanda
11. Somalia
12. Mozambique

USAID missions in these 12 countries should be prepared to explain how they plan to address problems in the education sector, or to provide an explanation of why support to the education sector is not a USAID priority.

The twelve highest ranking "performance countries" in rank order are the following:

1. Senegal
2. Uganda
3. Botswana
4. Ghana
5. Kenya
6. Mauritius
7. Malawi
8. Zimbabwe
9. Zaire
10. Cameroon
11. Swaziland
12. Lesotho

USAID missions in these 12 "performance countries" have an opportunity to enhance their portfolio's impact across all sectors and to support education activities in policy environments that are conducive to success. The maintenance of a quality educational system in performance countries is fundamental to the successful achievement of development objectives. USAID missions should recognize the importance of assistance to education in these countries and develop projects to support educational systems according to the guidance in this Action Plan.

---

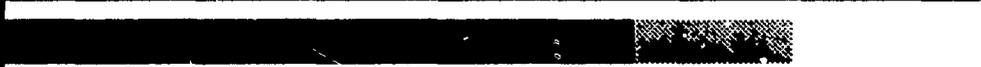
Data source for education statistics used in the selection criteria is: Education Policies for Sub-Saharan Africa: Adjustment, Revitalization, and Expansion, World Bank Report No. 6934, September, 1987;

# Needs Matrix

Score Weight

Detail Evaluation Criteria

Malawi	85	100
--------	----	-----

Good Pol Envir.		16	20
Poor Efficiency		20	20
Poor Enrol Gwth		15	15
Budget Support		8	11
Poor Access		5	10
Aid Priority		7	7
AG Produc Emp		7	7
Pop Emphasis		4	6
CH Survival Emp		3	4

# Needs Matrix

Summary Evaluation Criteria  
Rank

Score

1	Malawi		85
2	Mali		81
3	Guinea		71
4	Uganda		71
5	Ghana		68
6	Nigeria		68
7	Togo		68
8	Niger		65
9	Liberia		64
10	Rwanda		62
11	Somalia		62
12	Mozambique		61
13	Senegal		61
14	Zaire		61
15	Kenya		60
16	Tanzania		59
17	Lesotho		58
18	Madagascar		58

Possible = 100

# Needs Matrix

Summary Evaluation Criteria  
Rank

Score

19	Sudan		55
20	Cameroon		54
21	Swaziland		53
22	Chad		50
23	Gabon		49
24	Burkina		48
25	Botswana		44
26	Guinea-Bissau		43
27	Mauritania		43
28	Zambia		43
29	Zimbabwe		41
30	Mauritius		39
31	Congo		38
32	Car		36
33	Burundi		33
34	Gambia		29
35	Ivory Coast		25

Possible = 100

# Performance Matrix

Score Weight

Detail Evaluation Criteria

Senegal	86	110
---------	----	-----

High Efficiency		19	24
Poor Access		13	22
Good Pol Envir.		21	21
IPA2		11	19
Aid Priority		7	7
Agr Produc. Emp		7	7
Pop Emphasis		4	6
Ch Survival Emp		4	4

2

# Performance Matrix

## Summary Evaluation Criteria

Rank

Score

1	Senegal		86
2	Uganda		80
3	Botswana		77
4	Ghana		77
5	Kenya		70
6	Mauritius		69
7	Malawi		67
8	Zimbabwe		67
9	Zaire		63
10	Cameroon		62
11	Swaziland		61
12	Lesotho		58
13	Guinea		51
14	Mali		51
15	Niger		51
16	Tanzania		51
17	Zambia		50

Possible = 110

# Performance Matrix

## Summary Evaluation Criteria

Rank

Score

18	Sudan		49
19	Mauritania		48
20	Gambia		46
21	Burundi		45
22	Madagascar		44
23	Rwanda		42
24	Nigeria		39
25	Liberia		38
26	Burkina		36
27	Car		35
28	Ivory Coast		35
29	Somalia		35
30	Congo		31
31	Gabon		29
32	Guinea-Bissau		29
33	Togo		29
34	Mozambique		24
35	Chad		21

Possible = 110

10 Need

0 Performance

10



Target Group

Target Group

 Project Assistance

 Program Support

8

ANNEXES

Annex I  
A.I.D. Support to Primary Education in Africa

Annex II  
Donor Assistance to the Education Sector

Annex III  
Case Studies: A.I.D.'s Experience in Education  
Assistance

Annex IV  
Effects of Education of Females on Selected Indicators

Annex V  
Selected Indicators for A Sampling of African Countries

ANNEX 1

A.I.D. SUPPORT TO PRIMARY EDUCATION

Currently A.I.D. funds the following projects to assist the development of primary education in Africa:

1. Cameroon Support to Primary Education

FY 1984-90, LOP \$27,629,000 (G/L)

Oblig. through FY 87: \$24,358,000 Mortgage: \$3,271,000

The purpose of the project is to increase the number of primary school teachers for the Northern and Northwestern provinces and to upgrade the skills of existing teachers and personnel who are responsible for support to primary education (i.e., school inspectors). Outputs include inservice teacher training, construction and reconstruction of Teacher Training Colleges, technical assistance to the schools, and long-term training.

2. Lesotho Basic and Non-Formal Education Systems

FY 1984-90, LOP \$25,750,000 (G)

Oblig. through FY 87: \$15,338,000 Mortgage: \$10,412,000

The project intends to strengthen the MOE and provide training for its staff. It will also assist the the MOE to revise curricula and upgrade the instructional and evaluation system.

3. Botswana Primary Education Improvement Project Phase I and II

FY 1981-86, and FY 1986-93 LOP \$11,569,000 (G)

Oblig. through FY 87: \$9,369,000 Mortgage: \$2,200,000

The project is designed to establish a Department of Primary Education at the University College of Botswana. The project will also establish an in-service teacher training system.

4. Swaziland Teacher Training Project

FY 1983-89, LOP \$6,595,000 (G)

Oblig. through FY 87: \$5,595,000 Mortgage: \$1,000,000

The project focuses on improving and expanding the teacher training system to support preservice and in-service training of primary school teachers. Project inputs include curriculum revision and long-term training in the U.S.

5. Liberia Primary Education Project (PEP)

FY 1985-90, LOP \$12,750,000 (G)

Oblig. through FY 87: \$5,550,000 Mortgage: \$7,200,000

The purpose of the project is to develop and distribute programmed instructional materials that are designed to improve the efficiency of primary school teachers and to reduce the scarcity of texts.

The Africa Bureau obligated \$33.6 million in 105 (Education and Human Resources) account funds in FY 87 of which approximately \$10.1 million financed basic education activities.

Total obligations for current projects: \$60,210,000

Total Mortgage on current projects: \$24,083,000

## ANNEX II

### DONOR ASSISTANCE TO THE EDUCATION SECTOR

This is a selected summary of other donor assistance to the education sector in Africa.\*

#### The British Overseas Development Administration (ODA)

In the past ODA has concentrated on assistance to higher education with 56% of its education aid going to that sector. Secondary education receives 19.9% of ODA assistance. The primary areas of assistance undertaken by the ODA are:

- English Language Training
- Participant Training in the U.K.
- Provision of textbooks
- Educational Research
- Teaching assistance in technical areas

In 1983 the following countries received development assistance for education from the ODA:

Zambia	30.6%	Malawi	6.4%
Ghana	6.2	Sudan	4.6
Lesotho	4.3	Gambia	1.8
Others (18)	5.5	Tanzania	10.2
Botswana	8.2	Swaziland	8.0
Nigeria	7.4	Sierra Leone	6.8

#### Canadian International Development Agency (CIDA)

The following countries received education assistance from CIDA in 1983:

Rwanda	25.1%	Botswana	13.5%
Ghana	9.5	Swaziland	8.6
Zambia	6.7	Lesotho	6.1
Benin	5.3	Burkina Faso	4.8
Others (16)	20.1		

---

\* For a more complete discussion of this topic see: Donor Support for Education in Sub-Saharan Africa, Jennifer Bisgard, March, 1987; and External Aid to Education in Sub-Saharan African Countries, Benoit Millot, et al., University of Dijon

Of this aid 76.4% was allocated to higher education, 9.8% was devoted to vocational/technical training and primary education received 1.1%; technical assistance was the dominate mode of assistance representing 50.6% of total assistance, school supplies constituted 28.8% and scholarships composed the remaining 21.2%.

The French Fonds D'Aide et Cooperation (FAC)

The FAC has initiated several programs to make primary education in Francophone African countries more "relevant" to the rural environment. Those activities fall into four project areas:

- Curriculum reform: (Comoro Island, Burkina Faso, and Burundi)
- Literacy projects: (Niger, Burkina Faso, Guinea-Bissau, and Congo)
- Farmer Training: (Senegal, Chad, CAR, Rwanda, Togo, and Congo)
- Support of NGOs: (most recipient countries)

Eighty four point five percent of the education assistance that comes from France is in the form of technical assistance including teachers, and nearly 40% of the total assistance goes to higher education.

The following countries received assistance from the FAC in 1983:

Senegal	29.7%	Madagascar	11.2%
Congo	7.4	CAR	7.2
Burkina Faso	7.0	Niger	6.8
Cameroon	6.1	Mali	5.0
Burundi	4.0	Togo	3.9
Benin	3.4	Rwanda	1.6
Ghana	1.1	Others (5)	5.6

The Federal Republic of Germany (GTZ)

Basic education is the priority assistance area for the GTZ. Specifically they focus on four interventions:

curriculum development;  
production and dissemination of teaching aids;  
pre-and in-service teacher training, and  
applied education research.

Recipients of German education assistance in 1983 were:

Tanzania	24.6%	Senegal	9.5%
Zaire	8.2	Togo	6.3
Somalia	6.0	Burundi	4.9
Lesotho	4.8	Botswana	4.8
Zimbabwe	4.6	Rwanda	4.5
Others (14)	21.8		

Swedish International Development Authority (SIDA)

SIDA devoted 40% of its education assistance to the primary education sub-sector in 1983. Thirty five percent of their assistance went to vocational education and 11% percent was focussed on adult education. SIDA's education funds are largely spent for teaching aids which include paper, school furniture, school buildings and teacher training aids. The principal recipients of education assistance from SIDA are:

Tanzania	71.7%	Zimbabwe	38.5%
Ethiopia	22.8	Zambia	20.4
Botswana	18.4	Angola	16.2
Kenya	14.0	Mozambique	4.4
Swaziland	4.4	Guinea-Bissau	4.1

The World Bank

Loans for education and training in 1984-85 increased by \$1.2 billion. Currently 44% of all Bank education projects have a primary education component. There are five ongoing or planned primary education projects in Africa for FY 1988-1992 totaling \$166,600,000. These projects are located in Niger, Somalia, Cape Verde, The Gambia, and Nigeria.

### ANNEX III

#### CASE STUDIES: A.I.D.'S EXPERIENCE IN EDUCATION ASSISTANCE

##### Case Studies: What We Know How To Do

The following case studies are representative of different approaches to assistance to the education sector that the Agency has employed over the last twenty years.

##### Philippines Project IMPACT: A Curriculum Development Approach

Project Impact was designed for a country situation where a major constraint to education is the lack of trained teachers and the inability of the national budget to absorb higher recurrent costs associated with more highly trained teachers and increased numbers of teachers. The model, developed for the Philippines, designed learning modules and programmed learning materials which enabled teachers, with training and skills upgrading, to triple the number of students they could teach. The teacher becomes an instructional supervisor who orchestrates as many as 100 students. Aides and community volunteers assist with small group sessions. The learning process is self-directed and paced, with more advanced students assisting less advanced students

The project was first implemented in five schools in a cluster of rural villages on the island of Cebu from 1974 to 1976, and then expanded to further sites on Mindanao. The results of the project demonstrated that cost effective quality education could be delivered. The approach provides a less expensive teaching alternative particularly suited for reaching marginal students in remote and otherwise isolated areas. A variation of this project is currently being implemented in Liberia.

##### Nepal: A Case For Long-term Presence

U.S. aid to Nepal spanned 20 years, from 1954 to 1975 and totalled more than 19 million dollars. The goal of the ten projects was to develop a primary education system. A.I.D. points to this project as one of its major success stories and as an example of what sustained commitment to a sub-sector over a ten year period can produce. The results of the project left in place the complete infrastructure of an education system including the national capability to produce texts, and develop curriculum

Kenya: Radio Correspondence Education

USAID/Kenya designed this project to meet post-independence needs for an expanded school system in Kenya. The major constraint faced by the Kenyan educational system was its inability to train new teachers and retrain existing teachers quickly enough to meet expansion demands. To supplement the formal education system, the project introduced radio instruction in association with correspondence courses. The immediate goal of upgrading teachers was accomplished and institutional capacity was expanded to meet growing demand for trained teachers. Project spin-offs have included extensive design work in curricula for radio education including Radio Language Arts and Radio Math programs.

BEST: Zimbabwe's Education Sector Grant

The Basic Education and Skills Training (BEST) Sector Grant is the only program of its type in Africa. It is a \$45 million sector grant to assist the government of Zimbabwe in meeting its educational goals following independence in 1980. The program consists of a series of projects which are developed, reviewed and approved by a committee composed of participating ministries and USAID. The committee, under the chairmanship of the Ministry of Finance, is responsible for project oversight and implementation.

The program is innovative in its process-oriented focus and its collaborative structure allowing the host government to design interventions that it feels are appropriate. Thus the government's attention is on both process and implementation. This approach has resulted in the identification and training of key ministerial staff to form a core of professionals who manage development activities.

The project was designed on the basis of an evaluation of the existing educational system, the government's goals for schooling expansion, and the areas of shortfall that the project could address. Once those constraints were identified the project committee was formed and projects under the grant were written. The project is not without its implementation problems but it is an example of an innovative approach to project design that may be appropriate to other African environments.

The S&T Bureau Improving the Efficiencies of Education Systems  
(IEES) Project: A Systemic Approach

The IEES project is comprised of five major components:

1.  
Education Sector Assessments which are comprehensive assessments of the sector undertaken in collaboration with the host government and USAID to provide a detailed analysis of the sector so that informed project planning and development can take place.
2.  
Training is provided to improve host country capability to analyze and plan the allocation of human and fiscal resources within the education sector.
3.  
Systemic support is given for the design and execution of medium-scale research and design projects. Research topics are derived from needs identified in the sector assessment or during the implementation of field projects.
4.  
One or more field projects aimed at increasing the efficiency of selected sub-sectors within the educational system may be implemented in each participating country. These projects address priority needs identified through the sector assessments and are designed in collaboration with the host government and the USAID mission.
5.  
IEES also contributes to building an in-country knowledge base for future educational planning and decision making and to developing an exchange network among educational researchers and practitioners within the country. An in-country clearinghouse collects and disseminates to host country educators, the results of research supported by the project as well as other information from developing countries.

ANNEX IV

Effects of Education of Females  
on Selected Indicators

CHARTS

1. Total Years of Mothers' Education and Fertility

Mothers who have attended school for four or more years have lower fertility rates.

2. Total Years of Mothers' Education and Infant Deaths

Among mothers who have one or more years of education, fewer infants die.

3. Total Years of Mothers' Education and Deaths of Children Under Five Years

Among mothers who have one or more years of education, fewer children under five years die.

4. Females as Percentage of Total Enrollment by Level and Group (1984).

In the countries where the national income is lowest, enrollment of females is well below that of males. The discrepancy in enrollment increases as students move from the primary to the secondary and then to the tertiary level.

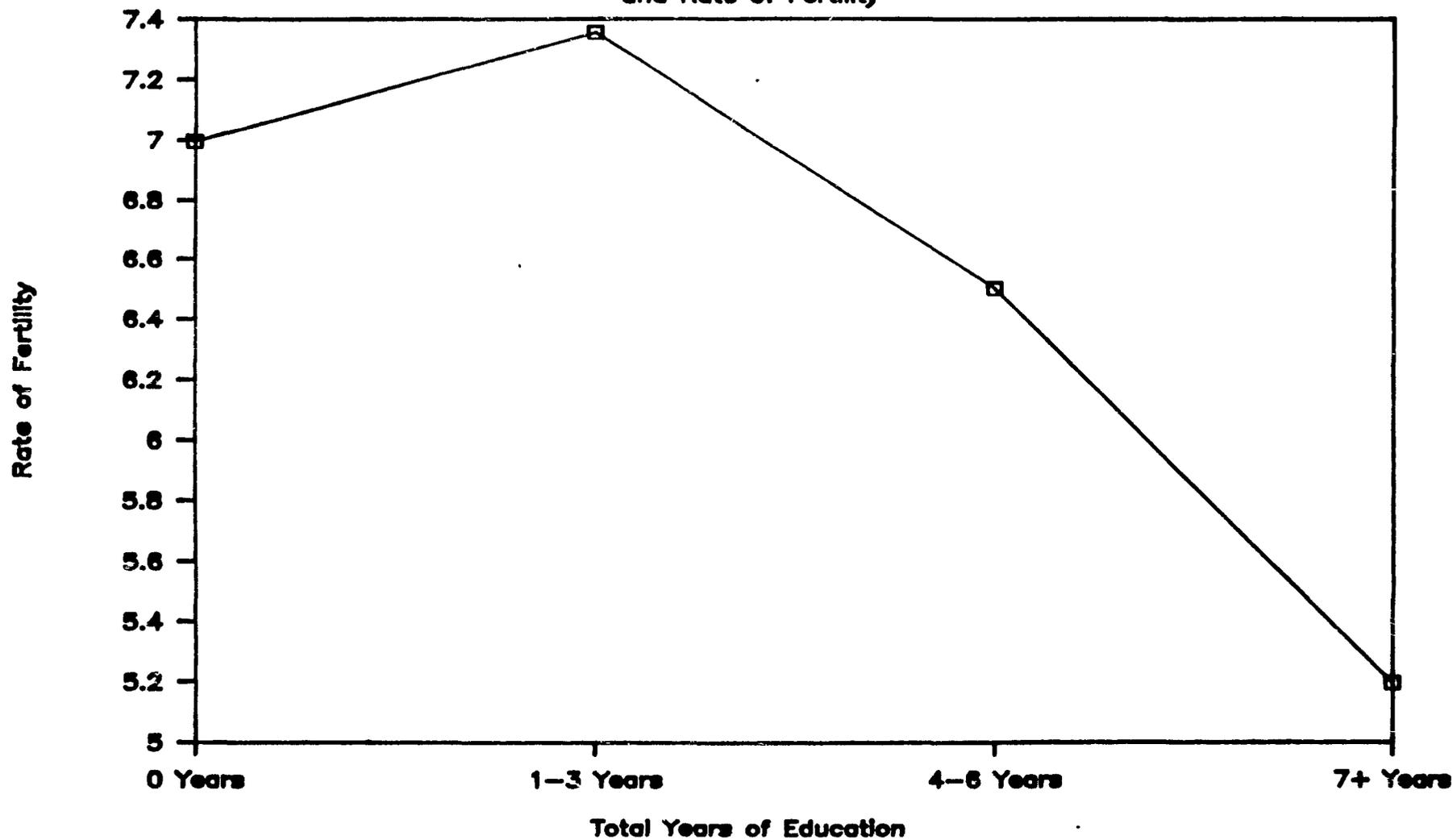
5. Participation in Labor, Literacy Rates, and School Enrollments of Females

In countries where income levels are higher, women have higher labor participation rates, higher literacy levels, and higher school enrollments (of 5 - 19 year olds).

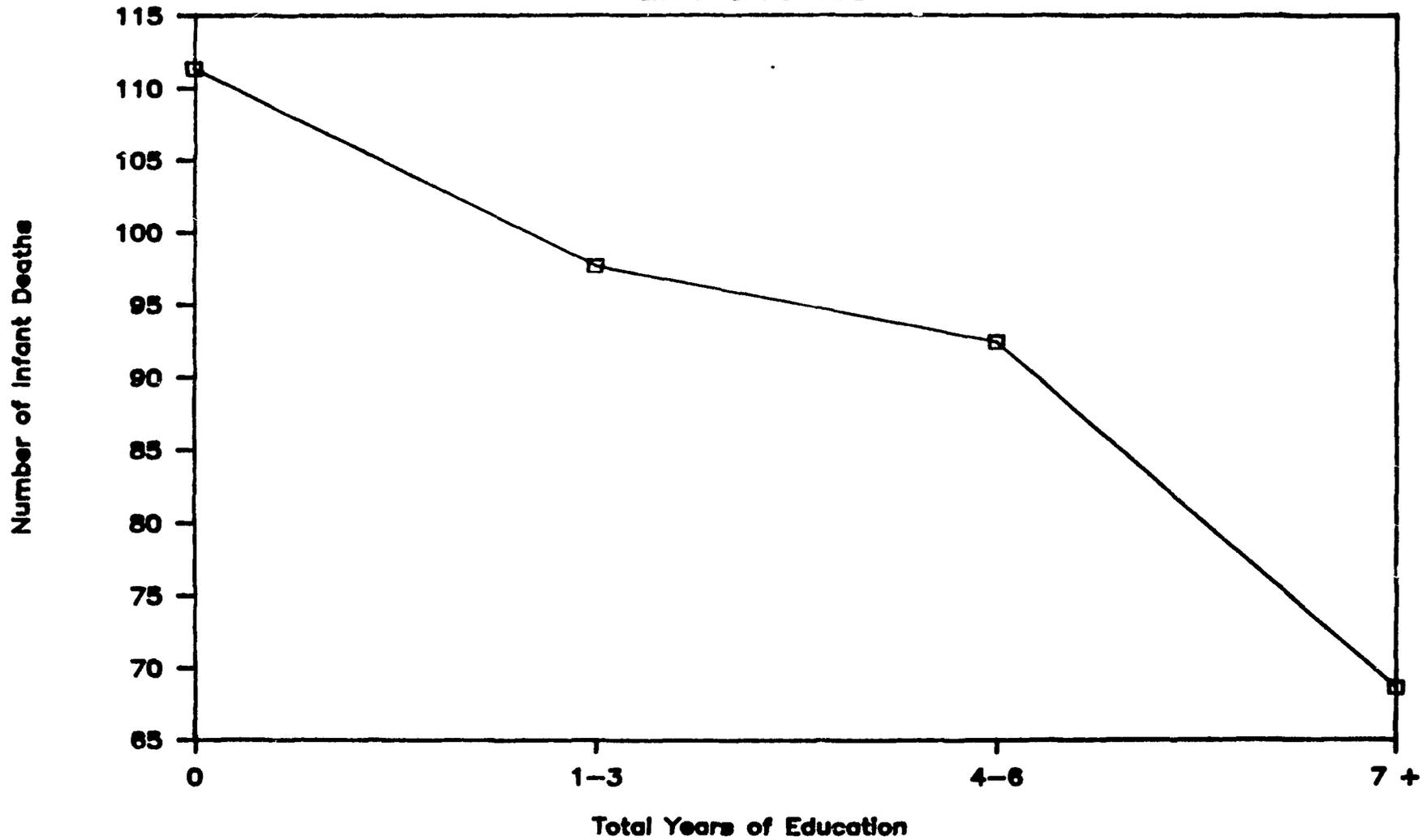
6. National Income and Women Illiterates by Fifths of the World's Population

The countries in the poorest fifth of the world have the highest rates of female illiteracy, whereas the countries in the richest fifth of the world have the lowest rates of female illiteracy.

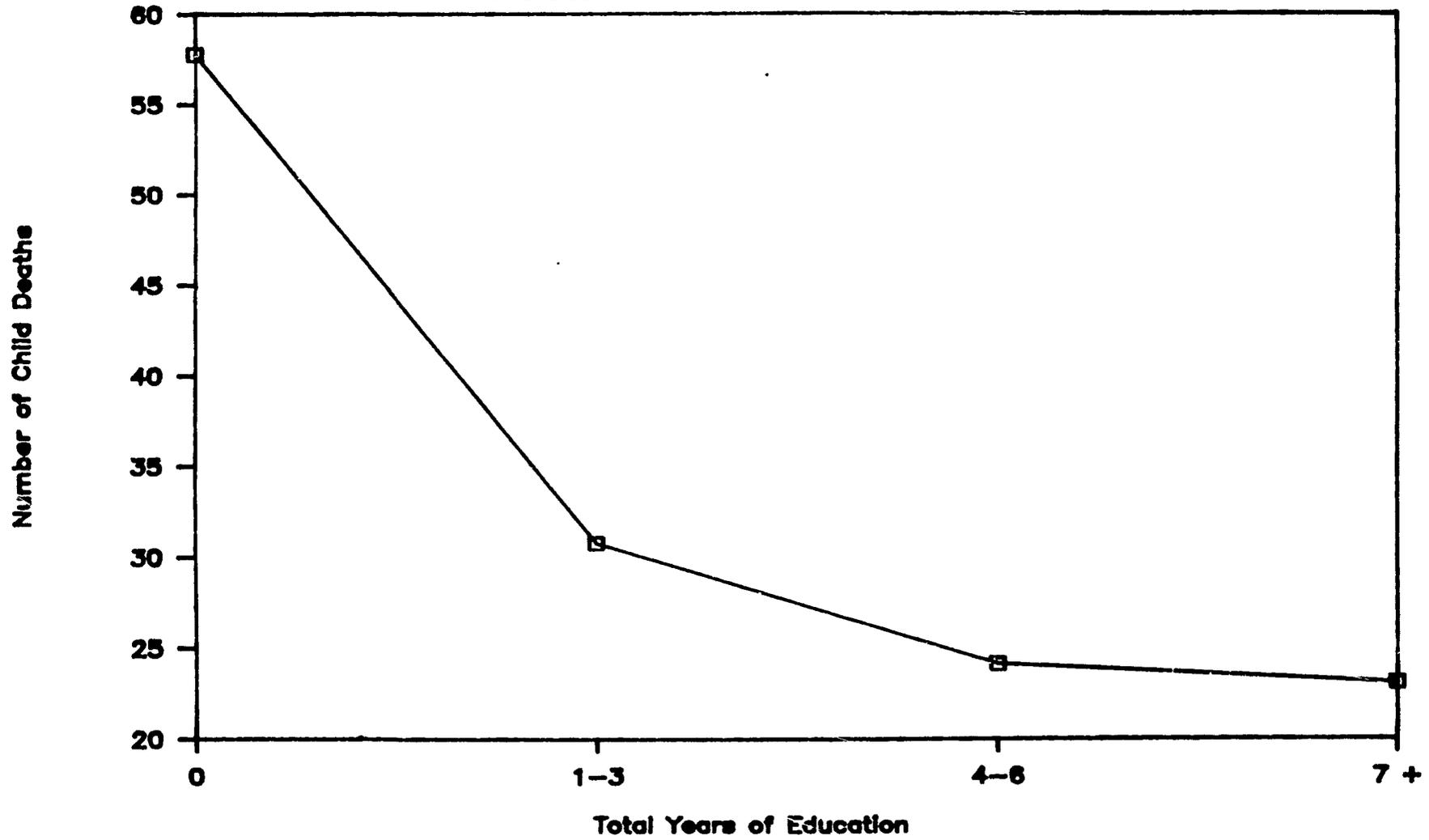
# Total Years of Mothers' Education and Rate of Fertility



# Total Years of Mothers' Education and Infant Deaths



# Total Years of Mothers' Education and Deaths of Children Under Five Years



# FEMALES AS PERCENTAGE OF TOTAL ENROLL.

by Level and Group (1984)

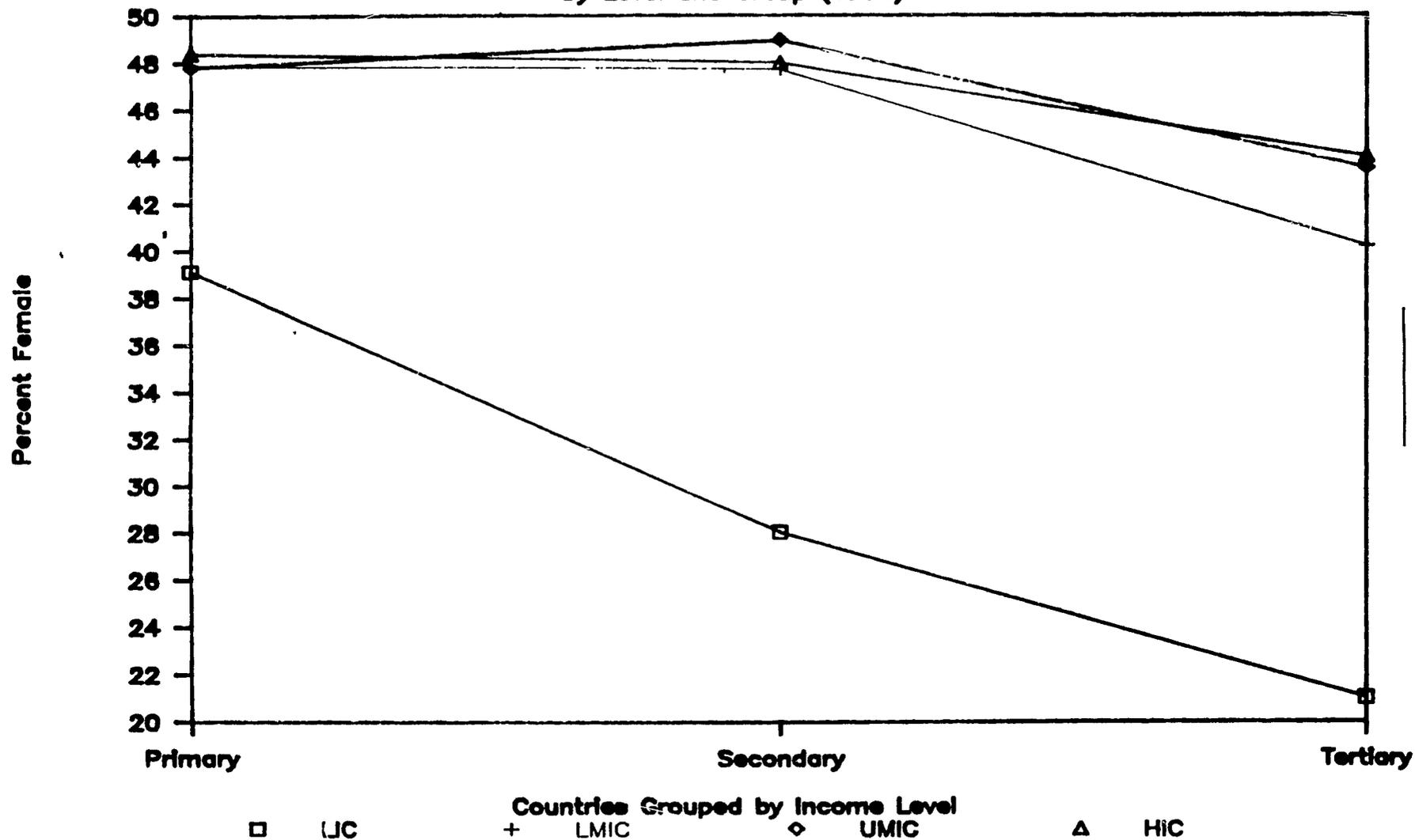


CHART 4

# Participation in Labor, Literacy Rates, and School Enrollment of Females 15-19

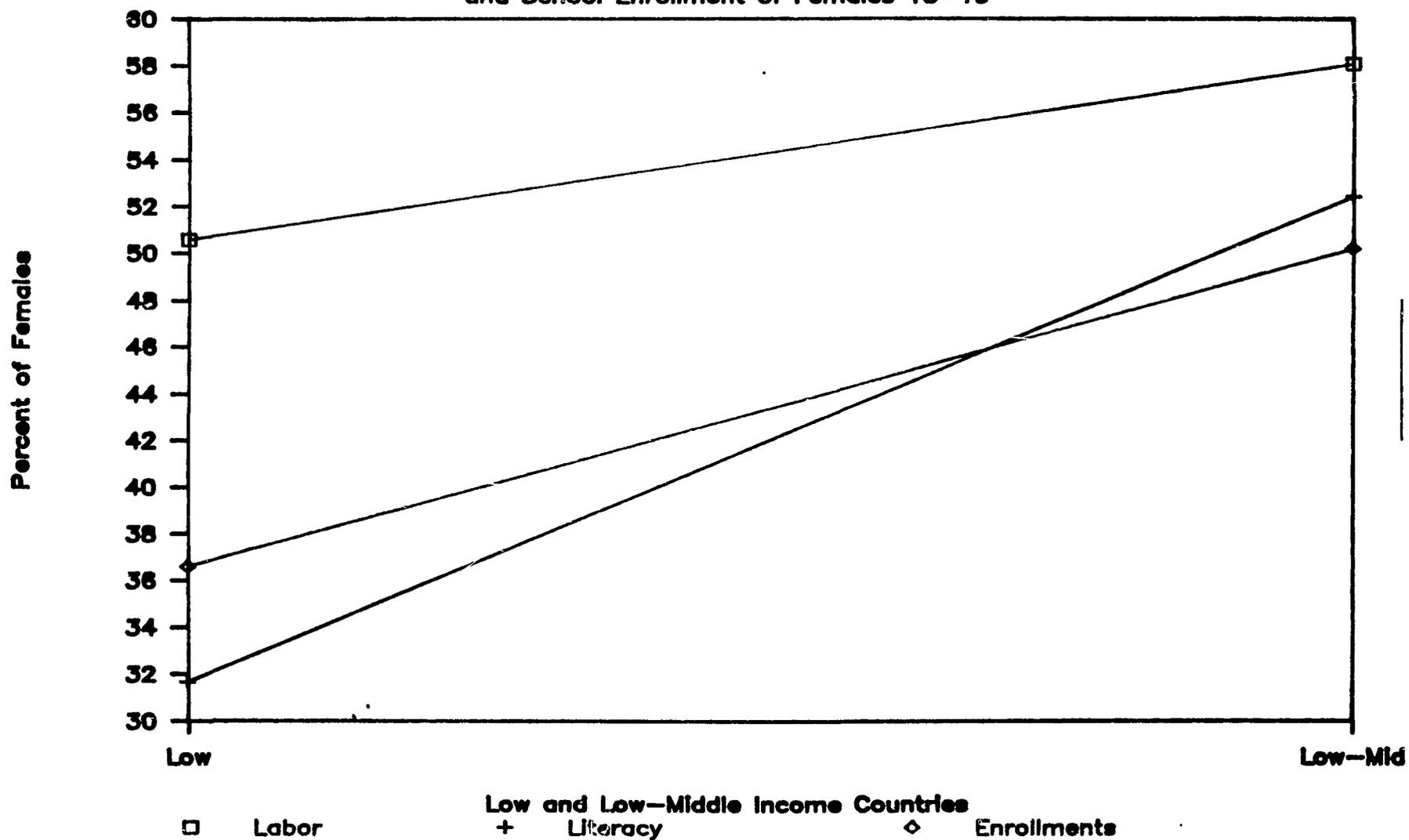
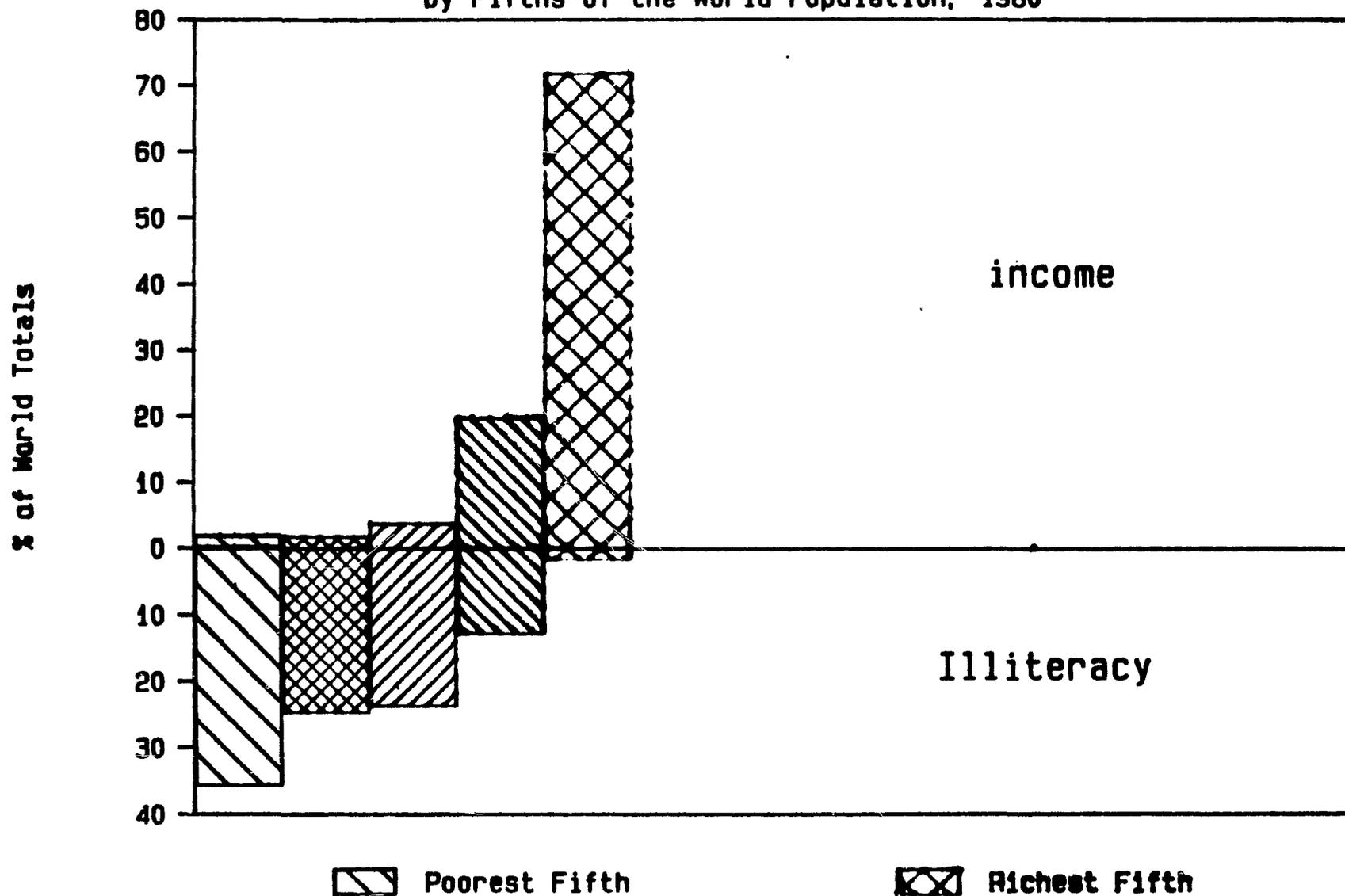


CHART 5

- 28 -

# National Income and Women Illiterates

by Fifths of the World Population, 1980



REFERENCES AND NOTES ON CHARTS

Annex IV

General Information

All of the charts in this annex report data on 24 sub-Saharan African countries or a subset of these countries. The Africa Bureau selected these countries as potential recipients of A.I.D. funding, based on a set of indicators. The charts in this annex look at certain of those indicators. We present the countries according to their national income level, as reported in the World Bank's World Development Report 1987. They are:

Low Income Economies

Ethiopia  
Ghana  
Guinea  
Kenya  
Madagascar  
Malawi  
Mali  
Mozambique  
Niger  
Rwanda  
Senegal  
Somalia  
Sudan  
Togo  
Tanzania  
Zaire  
Zambia

Lower Middle-Income Economies

Botswana  
Cameroon  
Ivory Coast  
Lesotho  
Liberia  
Swaziland  
Zimbabwe

For charts where countries were grouped by income level, the abbreviations are:

LIC	Lower Income Economies
LMIC	Lower Middle-Income Economies
UMIC	Upper Middle-Income Economies
HIC	Higher Income Economies

Notes on Charts

The data presented in Charts 1, 2, and 3 are from the World Fertility Survey's report, Fertility in the Developing World, 1986. The study was conducted between 1978 and 1984 in 41 countries and was commissioned by UNFPA and A.I.D. Of the 41 countries surveyed, seven are on the list of potential A.I.D. recipients listed above. The countries are:

Mali  
Zaire  
Malawi  
Niger  
Kenya  
Sudan  
Senegal  
Cameroon

- Chart 1: Total Years of Mothers' Education and Rate of Fertility

The total fertility rate represents the number of children that would be born per woman, if she were to live to the end of her childbearing years and bear children at each age according to prevailing age-specific fertility rates.

- Chart 2: Total Years of Mothers' Education and Infant Deaths, and Chart 3: Total Years of Mothers' Education and Deaths of Children under Five Years

- Chart 4: Females as Percentage of Total Enrollment, by Level and Group (1984)

Data for this chart come from the World Bank's World Development Report 1987, pages 39-40, and include all 24 sub-Saharan countries listed above.

- Chart 5: Participation in Labor, Literacy Rates, and School Enrollment of Females 15 - 19, and Chart 6: National Income and Women Illiterates by Fifths of the World Population, 1980

Data for both charts are from Women, a World Survey, by Ruth Leger Sivard, World Priorities, 1985, pages 39 and 19, respectively. For Chart 6, literacy levels were related to national income levels, presented in fifths of world totals.

ANNEX V

Performance of a Subset of Sub-Saharan African Countries  
on Selected Indicators

CHARTS

1. Capital Aid to Education by Component for All Donors

In capital aid for higher education, donors contribute almost three times the amount they contribute for primary education and almost nine times what they contribute for secondary education.

2. Non-Capital Aid to Education by Component for All Donors

In non-capital aid to higher education, donors contribute almost 10 times the amount they contribute for primary education. The lowest contributions are to education focused on females.

3. Total Education Expenditures as Percent of GNP

Lower income economies spend significantly less of their GNP on education than do countries with stronger economies.

4. Per-Pupil Expenditures as Percent of GNP Per Capita

Lower-income and lower middle-income countries spend a disproportionate amount on individual pupils at the higher education level than do countries with stronger economies.

5. Average Annual Growth Rate of Primary Per-Pupil Expenditures

The average annual growth rate of primary per-pupil expenditures in lower income countries declined in the periods 1975-80 and 1980-84; whereas in all other economies, the growth rate increased in the period 1980-84.

6. Percentage of Recurrent Expenditures Devoted to Teaching Materials

Between 1975 and 1984, although the percentage of total recurrent expenditures devoted to teaching materials declined in all economies, the amount decreased by almost 50 percent in lower income and lower middle-income economies.

7. Student/Teacher Ratios by Level of Education

The student/teacher ratio is significantly higher at the primary level in lower income and lower middle-income economies than in stronger economies.

8. Percent of Cohort Reaching Fifth Grade

A significantly smaller percentage of children reaches the fifth grade in lower-income and lower middle-income economies when compared with the number that reaches the fifth grade in stronger economies.

9. Repeaters as Percent of Total Enrollment, Primary Level

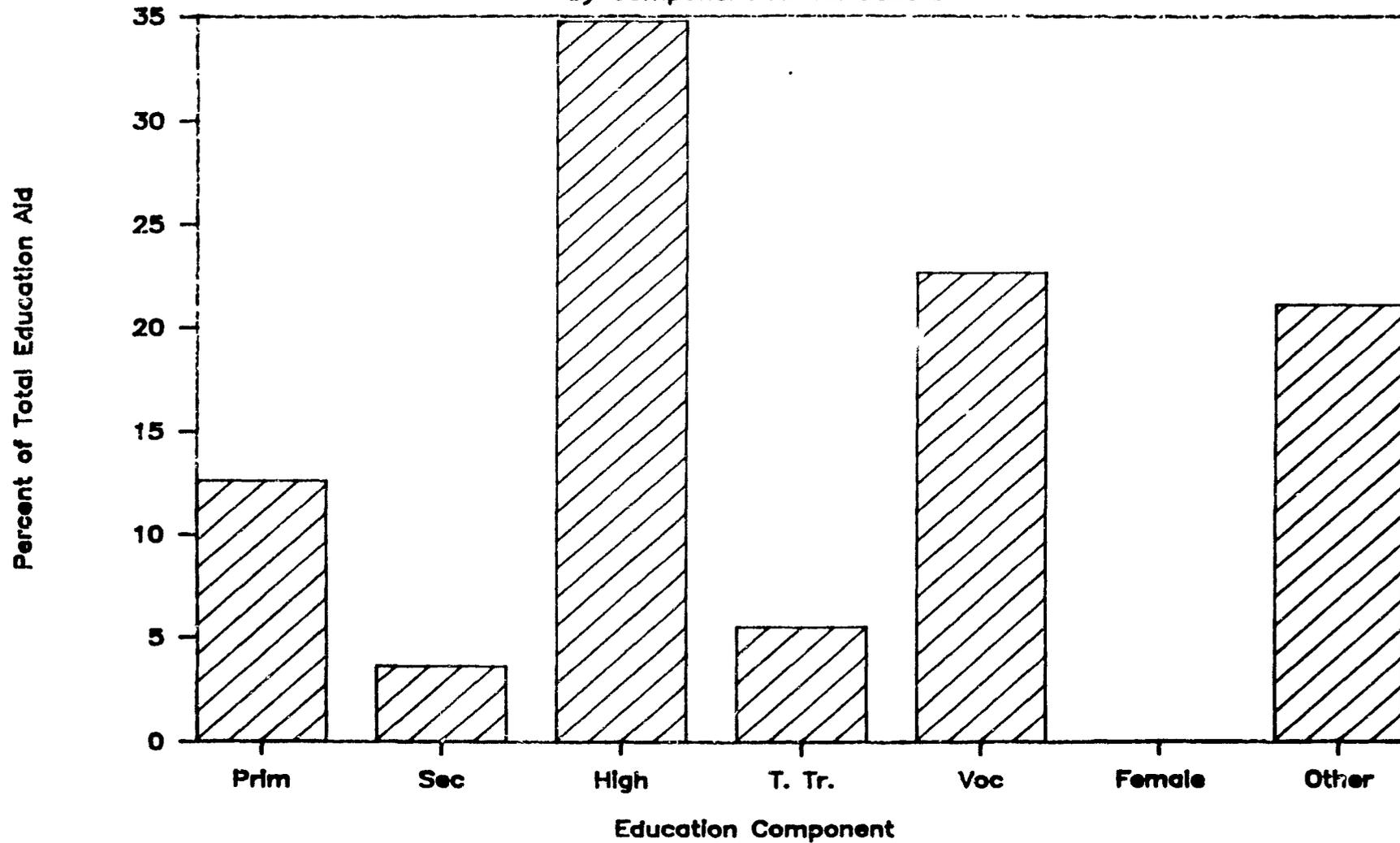
A significantly higher percentage of students in lower-income and lower middle-income economies repeats grades when compared with the number that repeats grades in stronger economies.

TABLES

1. Selected Sub-Saharan African Countries by National Income, A.I.D. Category, and Population
2. Selected Sub-Saharan African Countries Ordered by Size of Population
3. Economic Outlook of Countries
4. Capital Aid to Education in Sub-Saharan African Countries by Donor. Percent of Total Aid to Each Country by Each Donor
5. Non-Capital Aid to Education in Sub-Saharan African Countries. Percent Contributed by Each Donor Country
6. Financial Sustainability: Total Education Expenditures
7. External Aid to Education in Sub-Saharan African Countries: Capital Aid
8. Sustainability - Efficiency and Quality
9. A.I.D. Program Emphases

# CAPITAL AID TO EDUCATION

by Component for All Donors



# NON-CAPITAL AID TO EDUCATION

by Component for All Donors

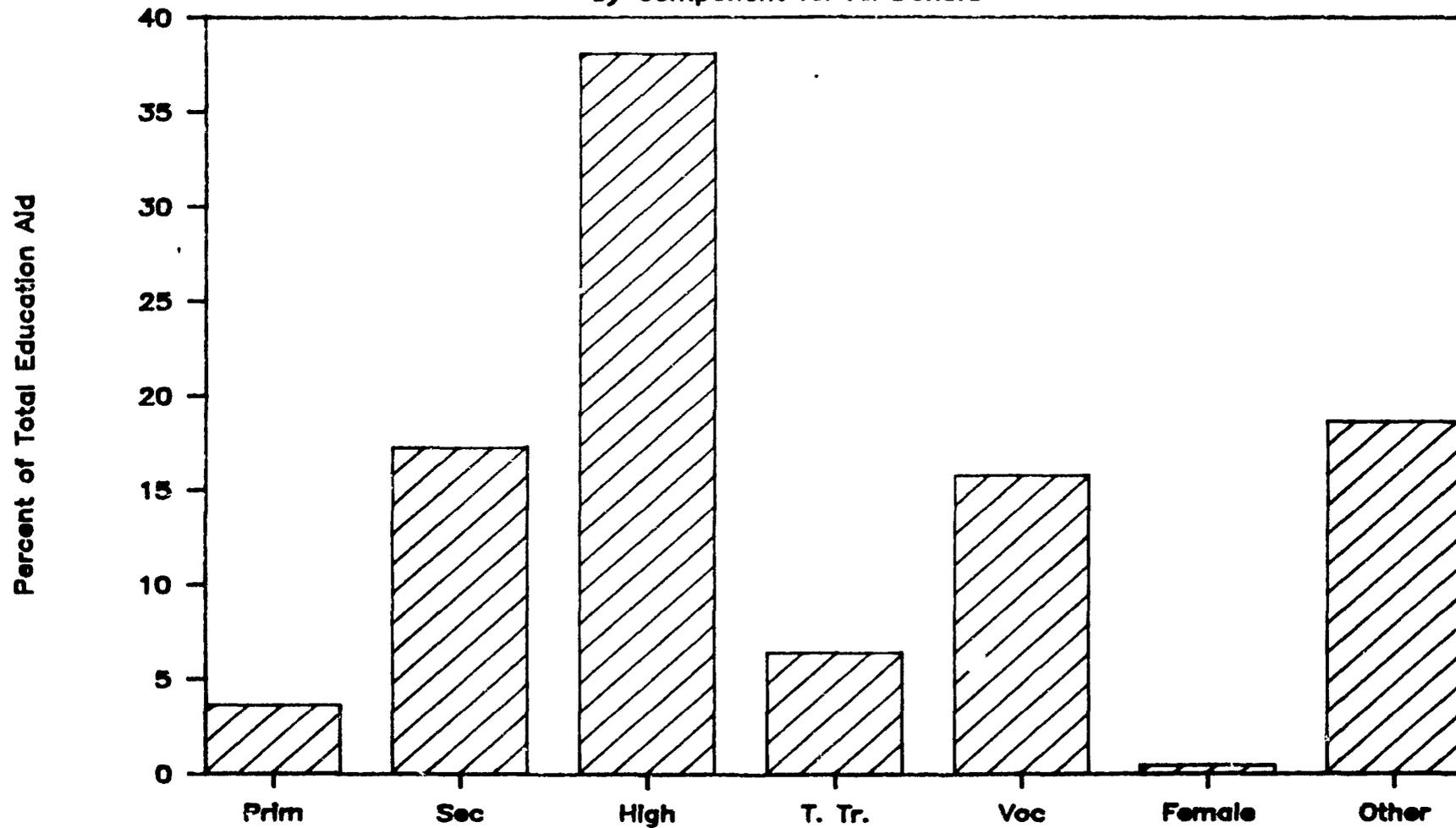
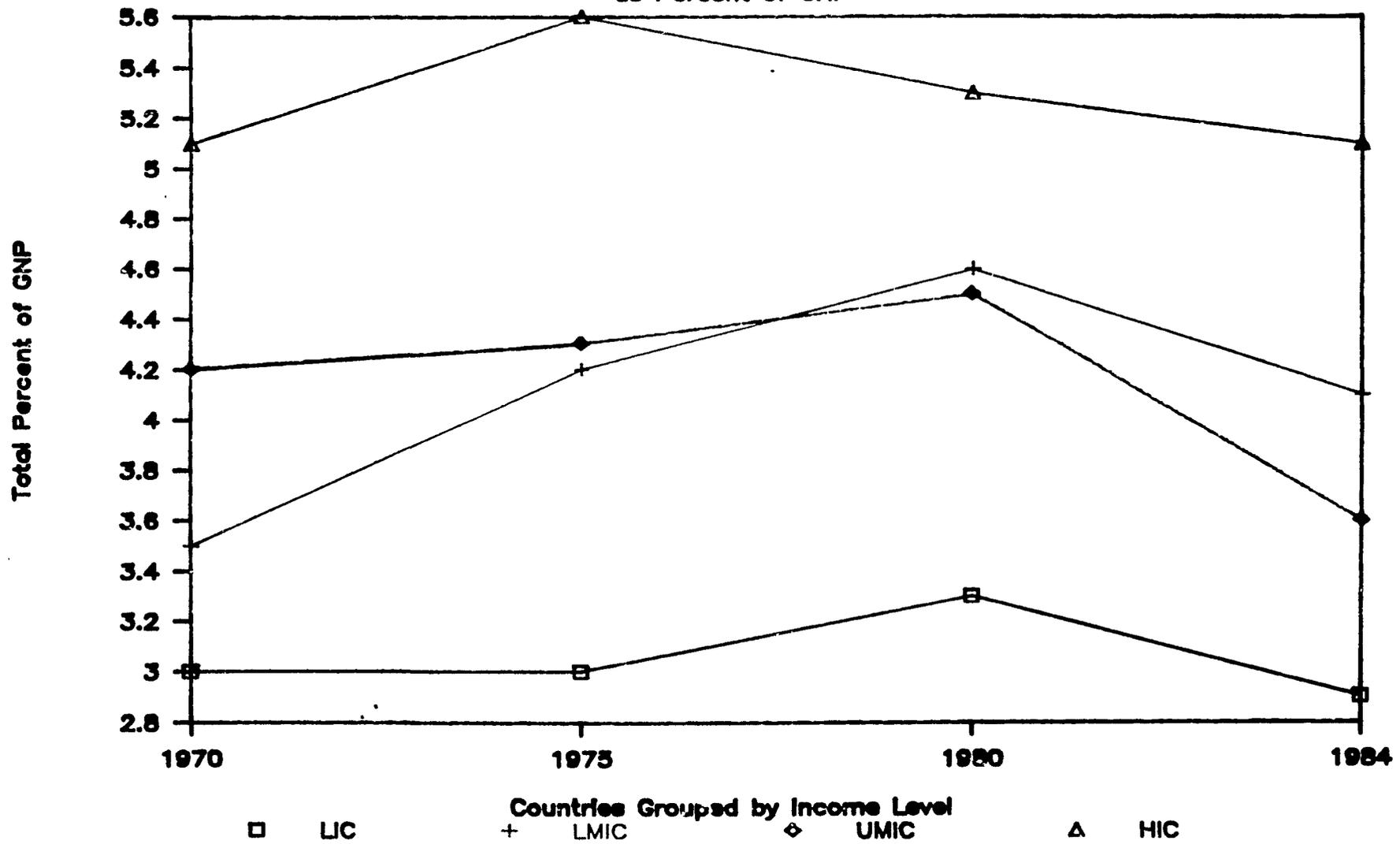


CHART 2

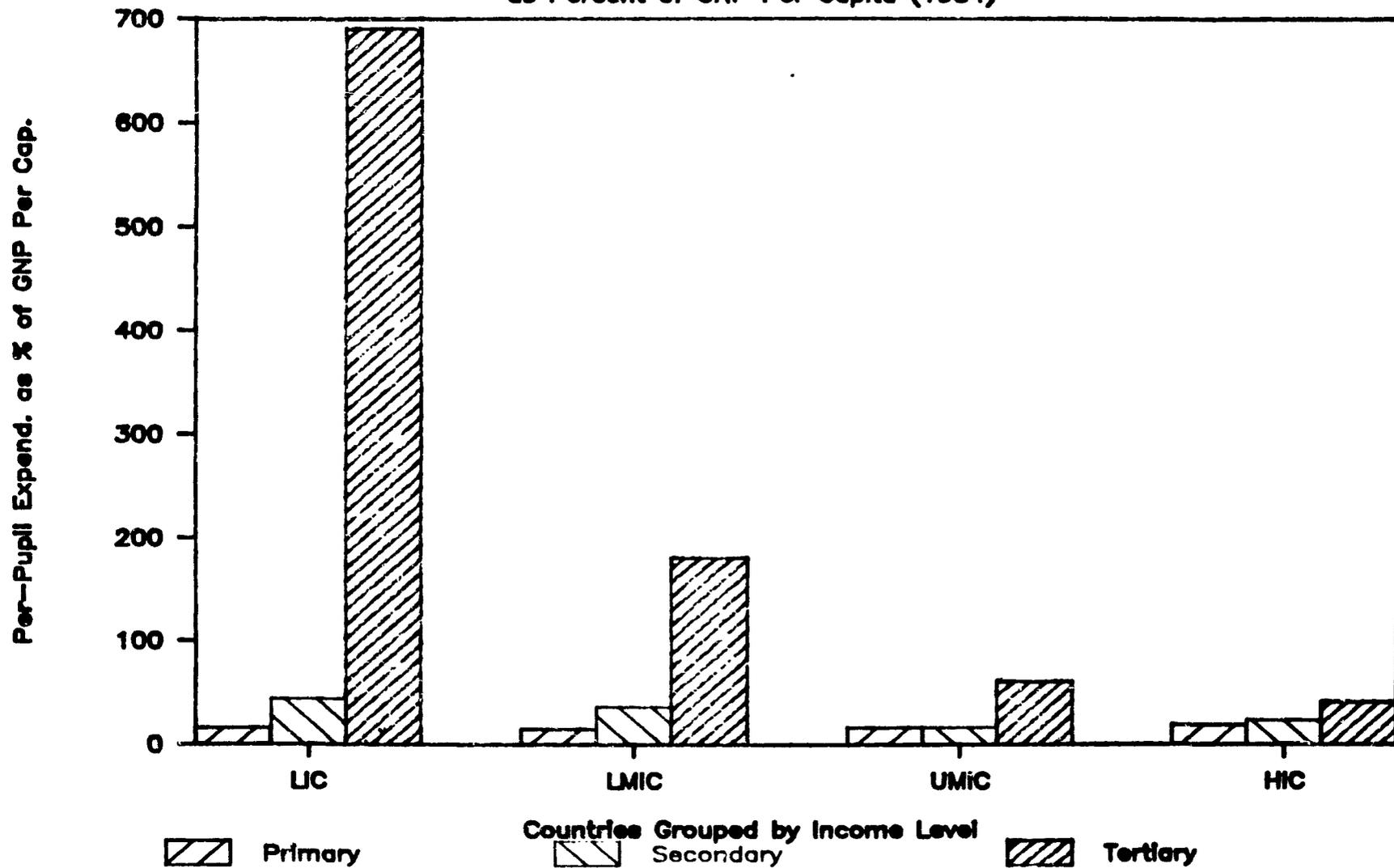
# TOTAL EDUCATION EXPENDITURES

as Percent of GNP

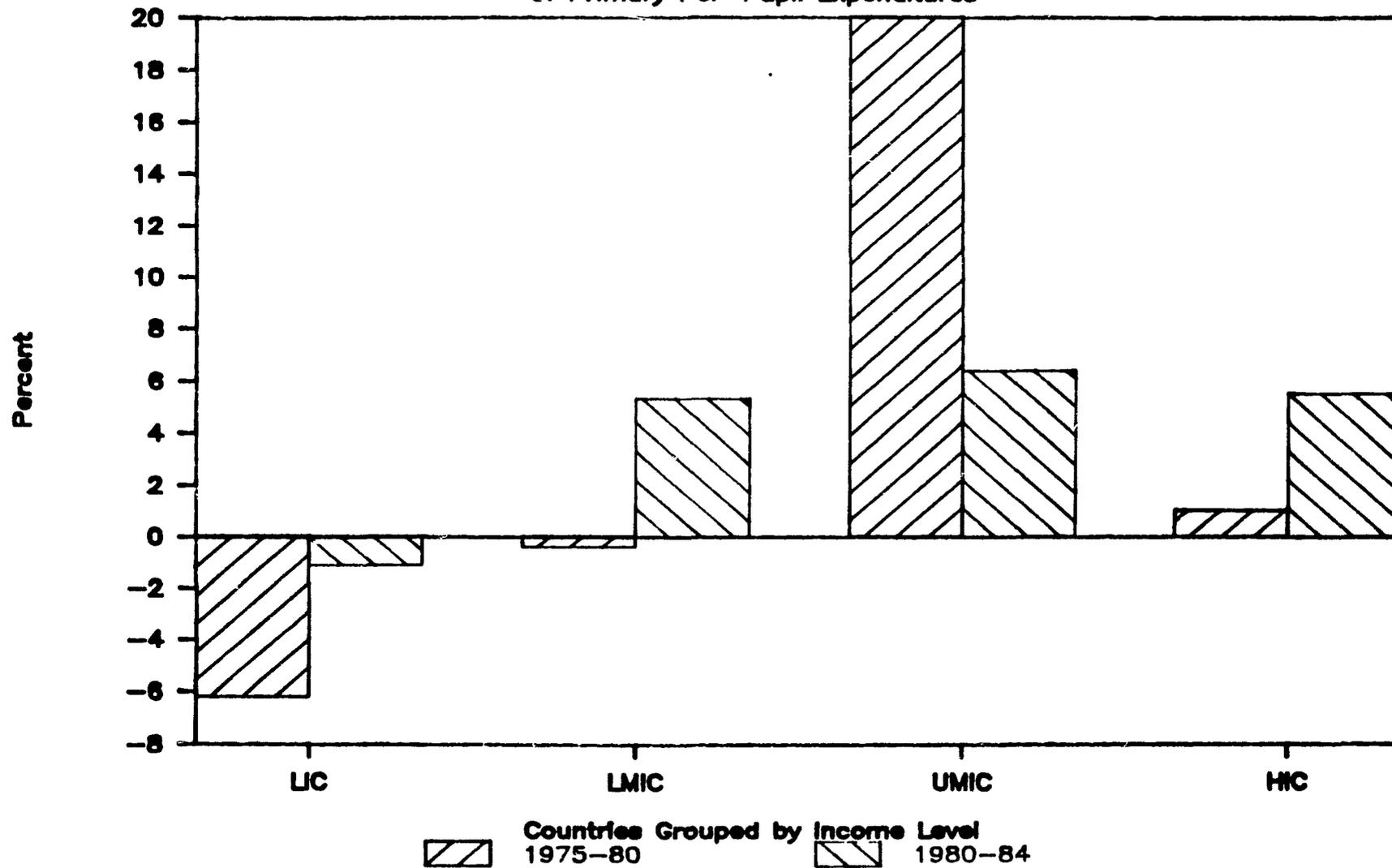


# PER-PUPIL EXPENDITURES

as Percent of GNP Per Capita (1984)

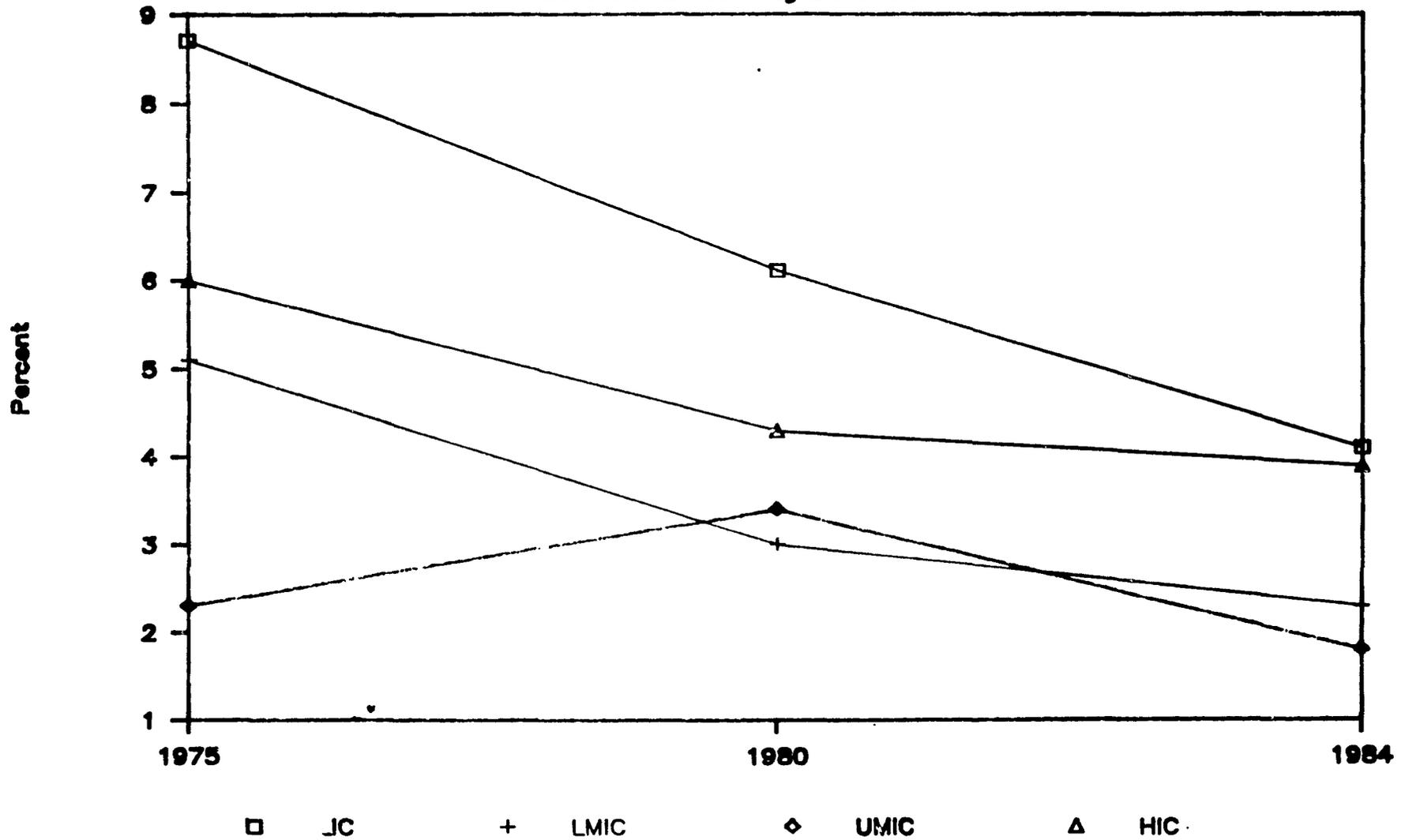


# AVERAGE ANNUAL GROWTH RATE of Primary Per-Pupil Expenditures



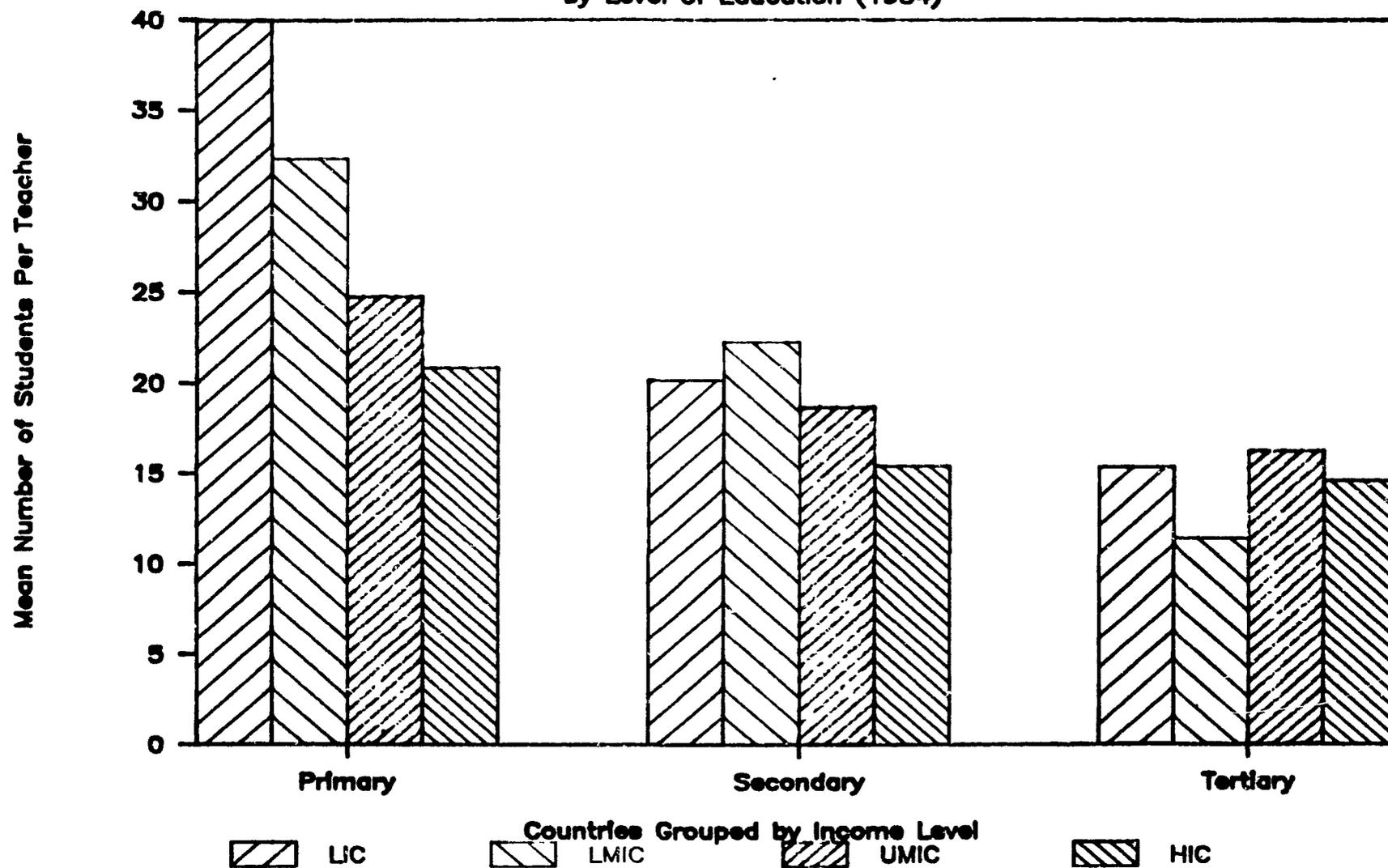
# PERCENTAGE OF RECURRENT EXPENDITURES

Devoted to Teaching Materials



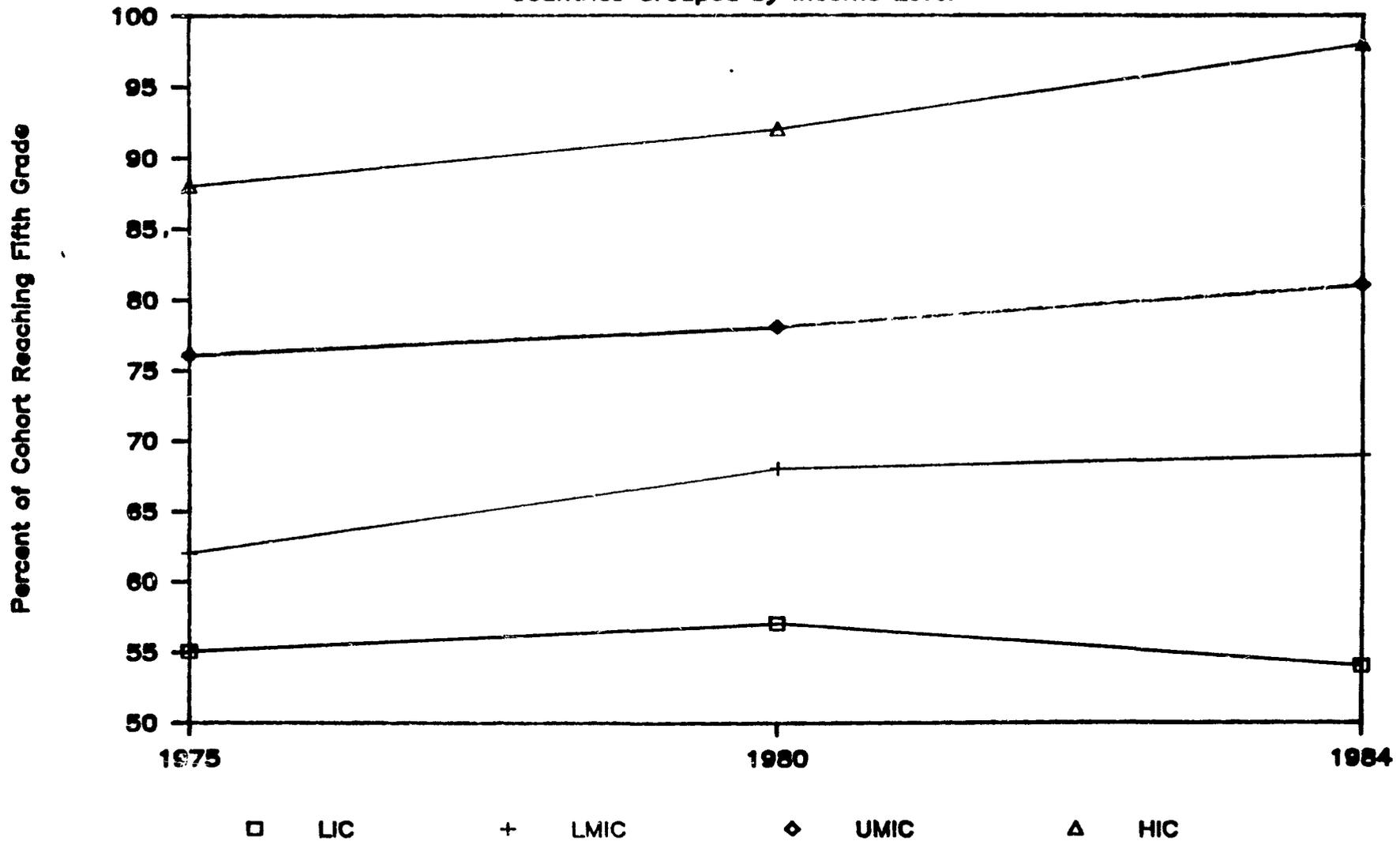
# STUDENT-TEACHER RATIOS

by Level of Education (1984)



# PERCENT OF COHORT REACHING FIFTH GRADE

Countries Grouped by Income Level



# REPEATERS AS PERCENT OF TOTAL ENROLL

Primary Level

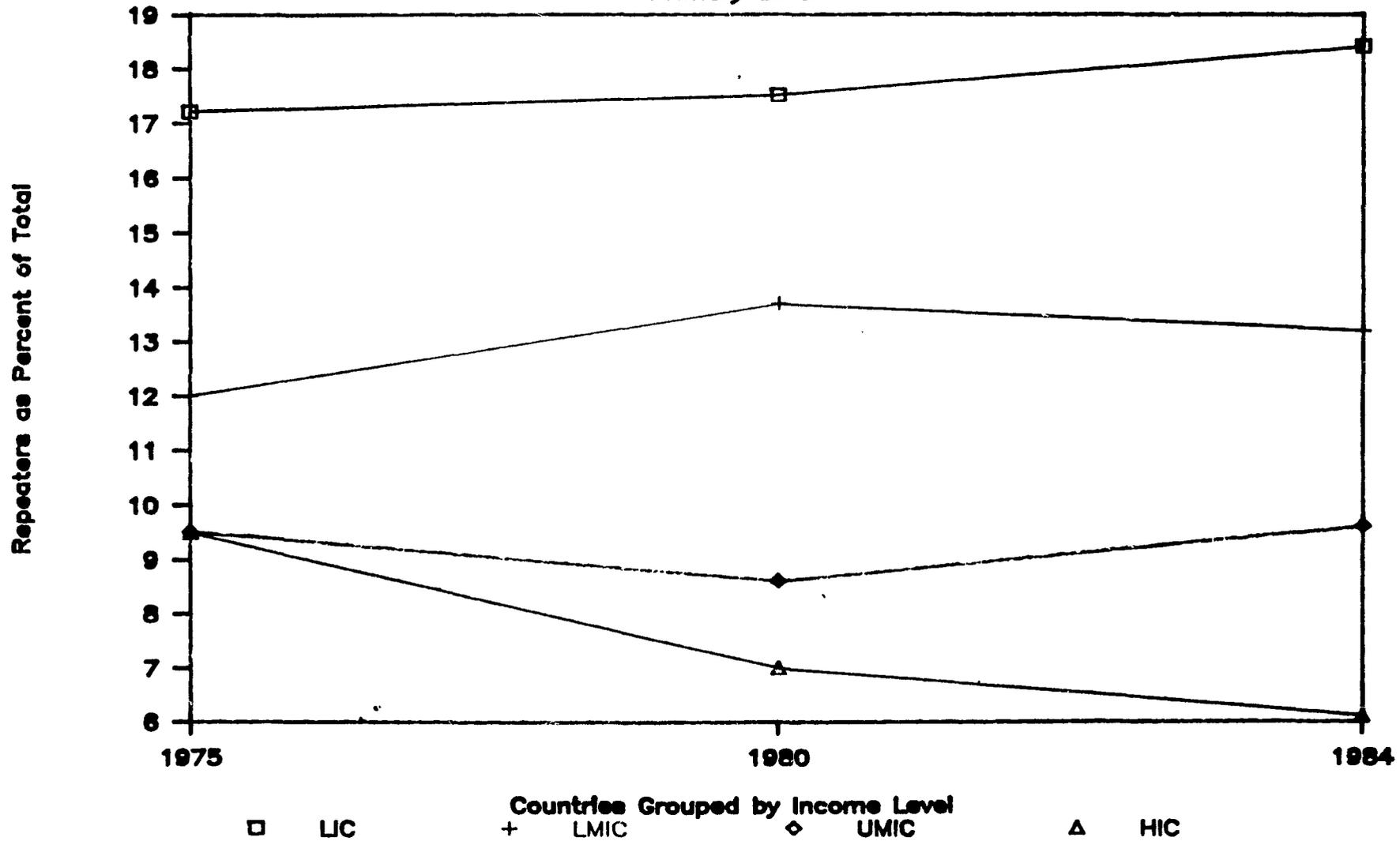


CHART 9

TABLE 2

Selected Sub-Saharan African Countries  
Ordered by Size of Population

	<u>Income</u> <u>Category</u>	<u>AID</u> <u>Category</u>	<u>Population</u>
Ethiopia	L	3	42,300,000
Zaire	L	1	30,600,000
Tanzania	L	2	22,200,000
Sudan	L	1	21,900,000
Kenya	L	1	20,400,000
Mozambique	L	2	13,800,000
Ghana	L	2	12,700,000
Cameroon	LM	2	10,200,000
Madagascar	L	2	10,200,000
Ivory Coast	LM	3	10,100,000
Zimbabwe	LM	2	8,400,000
Mali	L	2	7,500,000
Malawi	L	2	7,000,000
Zambia	L	1	6,700,000
Senegal	L	1	6,600,000
Niger	L	2	6,400,000
Guinea	L	2	6,200,000
Rwanda	L	2	6,000,000
Somalia	L	1	5,400,000
Togo	L	3	3,000,000
Liberia	LM	1	2,200,000
Lesotho	LM	3	1,500,000
Botswana	LM	3	1,100,000
Swaziland	LM	3	757,000

L =Lower  
LM=Lower  
Middle

TABLE 1

Selected Sub-Saharan African Countries  
by National Income, A.I.D. Category  
and Population

	<u>Income Category</u>	<u>AID Category</u>	<u>Population</u>
Kenya	L	1	20,400,000
Liberia	LM	1	2,200,000
Senegal	L	1	6,600,000
Somalia	L	1	5,400,000
Sudan	L	1	21,900,000
Zaire	L	1	30,600,000
Zambia	L	1	6,700,000
Cameroon	LM	2	10,200,000
Ghana	L	2	12,700,000
Guinea	L	2	6,200,000
Madagascar	L	2	10,200,000
Malawi	L	2	7,000,000
Mali	L	2	7,500,000
Mozambique	L	2	13,800,000
Niger	L	2	6,400,000
Rwanda	L	2	6,000,000
Tanzania	L	2	22,200,000
Zimbabwe	LM	2	8,400,000
Botswana	LM	3	1,100,000
Ethiopia	L	3	42,300,000
Ivory Coast	LM	3	10,100,000
Lesotho	LM	3	1,500,000
Swaziland	LM	3	757,000
Togo	L	3	3,000,000

L =Lower  
LM=Lower  
Middle

TABLE 3

ECONOMIC OUTLOOK OF COUNTRIES

	Avg Annual Growth Rate of GDP 1980-1985	Debt Service as % of GDP	Donor Assistance as % of GDP
Botswana	12.1	6.9	13.7
Cameroon	8.6	3.1	2.1
Somalia	4.9	2.3	14.5
Senegal	3.3	3.7	12.2
Kenya	3.1	6.9	7.9
Zimbabwe	2.5	6.7	4.9
Malawi	2.0	7.4	11.0
Rwanda	1.8	0.9	10.7
Zaire	1.0	7.9	7.5
Guinea	0.9	3.6	6.5
Tanzania	0.8	1.0	7.9
Lesotho	0.5	3.2	16.5
Ethiopia	0.3	2.2	15.1
Zambia	0.1	4.0	15.4
Mali	-0.5	3.5	34.9
Sudan	-0.7	1.8	15.6
Ghana	-0.7	1.6	4.1
Madagascar	-0.8	5.3	8.2
Ivory Coast	-1.7	9.0	1.9
Togo	-1.8	13.7	17.5
Liberia	-1.9	1.7	8.8
Niger	-3.6	4.4	19.8
Mozambique	-9.6	-	9.2
Swaziland	2.5	6.7	4.9

TABLE 4

CAPITAL AID TO EDUCATION IN SUB-SAHARAN AFRICAN COUNTRIES BY DONOR  
Percent of Total Aid to Each Country by Each Donor

	EDF	Can	Swede	Den	NGO's	Islam	UNICEF	UK	ADF	US	Saudi	ADB	Nor	Neth	Switz	Yugo	Japan	France	FRG	Saudi Islam		Italy	Fin	Others		
	EDC					Sol					Arabi									Funds	Bank				UNESCO	WOR
Kenya	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Liberia	31.7	-	-	-	-	-	-	-	-	-	68.3	-	-	-	-	-	-	-	-	-	-	-	-	-		
Senegal	48.9	-	-	-	-	-	0.5	-	-	-	-	-	-	-	-	-	24.8	25.9	-	-	-	-	-	-		
Somalia	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Sudan	72.1	-	-	-	-	-	-	-	-	-	-	-	1.4	-	-	-	-	-	11.0	-	-	6.4	-	-		
Zaire	93.0	-	2.8	-	-	-	-	-	-	-	-	-	-	-	2.2	-	-	-	-	-	-	-	-	-		
Cameroon	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Guinea	20.1	-	-	-	-	-	-	-	-	-	79.9	-	-	-	-	-	-	-	-	-	-	-	-	-		
Madagascar	46.0	2.1	-	-	-	-	-	-	-	-	-	48.8	-	-	-	-	-	3.1	-	-	-	-	-	-		
Malawi	5.0	-	-	-	-	-	-	31.0	-	63.0	-	-	-	-	-	-	1.0	-	-	-	-	-	-	-		
Mali	3.4	-	-	-	-	-	71.5	-	-	-	-	-	-	-	25.1	-	-	-	-	-	-	-	-	-		
Mozambique	-	-	-	-	-	-	-	-	-	-	-	-	53.0	-	44.0	-	-	-	-	-	3.0	-	-	-		
Niger	2.0	-	-	-	-	98.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Rwanda	11.5	19.0	-	-	23.0	-	-	-	-	23.9	-	-	-	-	18.6	-	-	-	-	-	-	-	-	4.0		
Botswana	-	-	54.6	-	-	-	-	-	23.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21.5		
Ethiopia	-	-	-	-	64.2	-	19.3	-	-	-	-	-	-	-	-	-	-	-	-	-	8.1	-	-	8.4		
Ghana	-	94.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.2	-	-	-	-	-	-	-		
Ivory Coast	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Lesotho	34.1	31.3	-	-	13.3	-	-	21.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Swaziland	58.0	-	34.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.5		
Tanzania	-	-	-	50.0	-	-	-	-	-	-	-	11.4	-	-	-	-	10.2	-	-	-	-	-	-	20.4		
Togo	-	-	-	-	-	-	-	-	66.3	-	-	-	-	-	-	-	-	-	-	19.8	17.9	0.6	-	-		
Zimbabwe	-	-	32.8	47.0	-	-	6.0	-	-	-	-	-	-	-	-	-	-	-	14.1	-	-	-	-	-		
Zambia	-	-	16.8	4.4	-	-	-	42.7	-	-	-	-	-	-	-	-	-	-	-	-	-	11.6	5.0	19.5		
<b>Total % for Each Donor</b>	<b>527.8</b>	<b>147.2</b>	<b>141.5</b>	<b>101.4</b>	<b>100.5</b>	<b>98.0</b>	<b>97.3</b>	<b>93.0</b>	<b>90.2</b>	<b>86.9</b>	<b>79.9</b>	<b>68.3</b>	<b>60.2</b>	<b>54.4</b>	<b>45.9</b>	<b>44.0</b>	<b>41.2</b>	<b>29.0</b>	<b>25.1</b>	<b>19.8</b>	<b>17.9</b>	<b>11.7</b>	<b>11.6</b>	<b>6.4</b>	<b>5.0</b>	<b>89.3</b>

TABLE 5

NON-CAPITAL AID TO EDUCATION IN SUB-SAHARAN AFRICAN COUNTRIES  
PERCENT CONTRIBUTED BY EACH DONOR COUNTRY

	France	US	UK	Italy	EDF EEC	Belg	FRG	Swede	UNDP	Can	Neth	USSR	Nor	Egypt	UNICEF	Switz	Dyn	Czech	DDR	Fin	Japan	NGO's	Aus	Others	
Kenya	-	-	9.5	-	-	-	-	12.0	-	-	-	-	-	-	-	17.5	-	-	-	-	-	-	-	-	43.3
Liberia	5.3	56.8	3.2	-	-	-	-	-	-	-	-	10.5	-	6.9	-	-	-	-	-	-	-	-	-	-	17.3
Senegal	89.9	-	-	-	-	2.3	2.5	-	-	-	-	-	-	-	-	1.1	-	-	-	-	-	-	-	-	4.2
Somalia	-	-	-	75.1	3.2	-	8.5	-	6.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.1
Sudan	-	-	20.7	-	25.2	-	6.8	-	-	-	19.6	-	-	-	11.3	-	-	-	-	-	-	-	-	-	16.4
Zaire	3.7	-	-	-	2.7	84.2	2.7	-	2.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.0
Cameroon	74.3	-	-	-	3.9	5.0	-	-	5.8	-	-	-	-	-	-	2.3	-	-	-	-	-	-	-	-	8.5
Guinea	15.4	-	3.0	7.9	18.0	-	-	-	-	-	-	-	-	27.6	-	-	-	-	-	-	-	-	-	-	8.1
Madagascar	85.7	-	-	-	4.3	-	-	-	3.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.5
Malawi	5.1	-	66.0	-	-	-	-	-	11.0	-	-	-	-	-	12.2	-	-	-	-	-	-	-	-	-	5.7
Mali	64.7	11.3	-	-	-	-	-	-	7.1	-	-	2.6	-	-	-	-	-	-	-	-	-	-	-	-	14.3
Mozambique	-	-	-	-	-	-	-	9.0	8.5	-	32.2	-	35.6	-	4.7	-	-	-	-	-	-	-	-	-	10.0
Niger	73.6	6.5	-	-	-	4.7	-	-	-	-	-	-	-	-	-	3.8	-	-	-	-	-	-	-	-	11.4
Rwanda	25.5	-	-	-	6.5	-	6.3	-	9.4	17.6	-	10.6	-	-	-	-	-	-	-	-	-	-	6.1	-	18.0
Botswana	-	27.4	29.8	-	7.5	-	7.7	-	-	11.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16.3
Ethiopia	7.0	-	-	25.7	8.6	-	4.0	20.9	-	-	-	-	-	-	-	-	-	14.9	-	-	-	-	-	-	18.8
Ghana	17.3	6.3	19.7	-	10.0	-	-	-	-	6.7	-	10.3	-	-	-	-	-	-	-	-	-	10.6	-	-	19.1
Ivory Coast	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lesotho	-	49.9	14.0	-	-	-	7.1	-	5.3	4.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19.3
Swaziland	-	46.1	27.6	-	8.2	-	-	-	-	6.6	-	-	-	-	-	-	-	-	-	-	-	-	2.8	-	8.7
Tanzania	-	6.3	10.2	-	-	-	10.9	19.5	-	-	-	-	-	-	-	-	14.4	-	-	6.3	-	-	-	-	32.4
Togo	58.1	8.4	-	-	6.6	-	8.2	-	-	-	-	4.6	-	-	-	-	-	-	-	-	-	-	-	-	14.1
Zimbabwe	-	45.1	-	19.3	-	-	17.7	-	-	5.8	-	-	-	-	-	-	-	-	-	-	-	-	6.0	-	6.1
Zambia	-	-	42.7	-	-	-	-	16.8	-	-	-	-	-	-	-	-	4.4	-	11.6	5.0	-	-	-	-	19.5
<b>TOTAL % CONTRIBUTED BY EACH DONOR COUNTRY</b>	<b>645.6</b>	<b>264.1</b>	<b>246.4</b>	<b>128.0</b>	<b>104.7</b>	<b>96.2</b>	<b>82.4</b>	<b>78.2</b>	<b>59.4</b>	<b>52.2</b>	<b>51.8</b>	<b>38.6</b>	<b>35.6</b>	<b>34.5</b>	<b>28.2</b>	<b>24.7</b>	<b>18.8</b>	<b>14.9</b>	<b>11.6</b>	<b>11.3</b>	<b>10.6</b>	<b>8.9</b>	<b>6.0</b>	<b>329.5</b>	

TABLE 6

FINANCIAL SUSTAINABILITY  
TOTAL EDUCATION EXPENDITURES

	Educ as % of GNP	Ed as % of Total Gov. Expend.	Average Annual Growth Rate of Recurrent Expenditures		Percent Public Recurrent Expend Primary	Total Per Pupil Expenditures as Percent of GNP			Percent of Public Recurrent Expenditures Allocated to Primary Education			
			70-80	80-84		1975	1980	1984	1970	1975	1980	1983
Kenya	5.7	18.3	20.1	8.1	64.8	19.0	-	15.0	49.0	65.0	48.0	65.0
Liberia	5.7	24.3	-	-	17.6	-	7.0	-	-	-	18.0	30.0
Senegal	3.8	21.3	12.1	-	43.8	31.0	27.0	-	-	47.0	44.0	49.0
Somalia	1.2	8.7	20.6	22.1	62.4	-	16.0	-	63.0	62.0	62.0	60.0
Sudan	4.8	9.1	21.2	-	48.0	-	27.0	-	40.0	-	48.0	-
Zaire	-	-	33.2	-	47.1	9.0	10.0	-	-	44.0	47.0	-
Zambia	5.4	16.3	10.5	17.7	46.5	13.0	10.0	14.0	44.0	45.0	45.0	48.0
Cameroon	3.0	20.3	14.3	24.4	-	-	-	-	-	-	-	41.0
Guinea	3.3	15.3	-	5.8	24.7	-	20.0	20.0	-	-	25.0	31.0
Madagascar	3.8	18.5	13.8	10.8	41.5	8.0	9.0	11.0	49.0	43.0	59.0	58.0
Malawi	2.6	8.5	11.5	13.8	40.9	8.0	7.0	7.0	42.0	45.0	39.0	39.0
Mali	3.3	30.2	14.7	4.4	43.5	-	32.0	40.0	65.0	40.0	39.0	33.0
Mozambique	-	-	-	-	-	-	-	-	-	-	-	-
Niger	3.1	22.9	15.0	-	-	-	-	-	61.0	-	-	36.0
Rwanda	2.8	21.6	17.4	22.9	78.2	17.0	11.0	18.0	66.0	69.0	67.0	74.0
Botswana	8.4	16.0	30.1	20.8	43.0	14.0	15.0	15.0	58.0	47.0	52.0	43.0
Ethiopia	3.8	9.3	-	14.5	45.5	35.0	19.0	23.0	55.0	39.0	42.0	46.0
Ghana	1.5	21.5	-	-	29.3	9.0	-	3.0	39.0	25.0	29.0	32.0
Ivory Coast	6.6	19.0	21.4	-	39.0	21.0	21.0	-	29.0	37.0	39.0	45.0
Lesotho	2.6	14.8	25.4	9.0	39.7	-	-	6.0	59.0	-	-	37.0
Swaziland	-	-	-	-	-	-	-	-	-	32.0	41.0	47.0
Tanzania	3.4	14.3	-	-	45.0	16.0	-	-	42.0	37.0	45.0	47.0
Togo	5.9	19.4	25.0	7.4	29.5	-	8.0	-	68.0	-	30.0	25.0
Zimbabwe	6.8	13.7	20.2	20.3	65.2	12.0	24.0	18.0	48.0	49.0	67.0	61.0

TABLE 7

EXTERNAL AID TO EDUCATION IN SUB-SAHARAN AFRICAN COUNTRIES  
Capital Aid

	Total Aid 1981	Total Aid 1982	Total Aid 1983	Percentage of Aid Distributed to Education Components							
				Primary	Second	Higher	Teach Tr	Vocation	Female	Other	Not Distrib
Kenya	na	na	na								
Liberia	na	400	862	68.3	0.0	31.7	0.0	0.0	0.0	0.0	0.0
Senegal	11,375	8,671	611	0.6	10.7	24.2	20.4	26.4	0.0	17.7	0.0
Somalia	416	na	na	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0
Sudan	na	752	7,996	1.4	0.0	72.1	0.0	29.3	0.0	0.0	0.0
Zaire	3,023	3,037	3,761	0.0	0.0	95.0	2.2	0.0	0.0	0.0	0.0
Cameroon	804	11,798	na	27.0	0.6	0.0	0.0	57.6	0.0	21.7	0.0
Guinea	2,279	2,110	na	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0
Madagascar	1,298	1,150	51	0.0	48.8	0.0	0.0	46.0	0.0	3.0	0.0
Malawi	na	1,595	na	0.0	0.0	97.0	2.2	1.0	0.0	0.0	0.0
Mali	0	713	508	25.1	1.6	0.0	34.9	0.0	0.0	38.2	0.0
Mozambique	na	2,258	na	0.0	0.0	0.0	0.0	40.0	0.0	60.0	0.0
Niger	18,884	0	0	0.0	0.0	98.0	0.0	0.0	0.0	0.0	2.0
Rwanda	1,853	1,546	6,427	2.0	5.2	31.0	1.3	3.6	0.0	56.9	0.0
Botswana	6,982	na	3,708	0.0	6.4	37.2	1.2	0.0	0.0	0.0	55.2
Ethiopia	151	506	na	44.0	0.0	5.0	0.0	0.0	0.0	51.0	0.0
Ghana	5,351	0	0	0.0	0.0	0.0	0.0	94.8	0.0	0.0	5.2
Ivory Coast	na	na	na								
Lesotho	0	408	1,863	48.0	0.0	40.3	0.0	0.2	0.0	11.5	0.0
Swaziland	2,259	559	840	39.9	0.0	19.7	40.3	0.0	0.0	0.0	0.0
Tanzania	2,930	7,249	2,193	1.6	2.5	44.9	13.0	1.0	0.0	0.9	34.5
Togo	2,961	4,562	2,407	0.0	0.0	33.1	0.0	42.1	0.0	0.6	24.2
Zimbabwe	6,499	na	na	6.0	0.0	0.0	0.0	33.9	0.0	60.1	0.0
Zambia	0	0	0								

MEAN PERCENTAGE OF AID TO EACH EDUCATION COMPONENT

	MEAN PERCENTAGE OF AID TO EACH EDUCATION COMPONENT								Not		
	Primary	Secondary	Higher	Teach Tr	Vocation	Female	Other	Distrib			
TOTAL AID	67,065	47,314	31,227	12.6	3.6	34.7	5.5	22.7	0.0	15.3	5.8

TABLE 8

SUSTAINABILITY - EFFICIENCY AND QUALITY

	Primary Teachers Avg. Sal as Multiple of Per Capita Income	Primary Enrollment Ratio: Enroll. as % of Age Group	Primary Pupil/ Teacher Ratio	Percent of Cohort Reaching Final Grade	Teachers' Salaries as % of Total Pub Recurr Expend	Percent Public Recurr Expend Instruc Materials	
	1983	1980	1983				
Kenya	3.6	104.0	100.0	37	61.0	-	2.6
Liberia	3.8	76.0	70.0	33	-	48.9	1.1
Senegal	7.3	46.0	53.0	41	84.0	60.1	3.6
Somalia	3.9	30.0	21.0	23	-	80.9	-
Sudan	-	50.0	49.0	34	-	-	-
Zaire	-	90.0	90.0	42	-	-	-
Zambia	6.3	98.0	100.0	46	83.0	71.1	3.1
Cameroon	-	104.0	108.0	50	67.0	83.8	-
Guinea	-	35.0	36.0	36	41.0	82.5	-
Mada gascar	-	101.0	104.0	55	-	77.2	-
Malawi	3.5	61.0	58.0	58	32.0	74.1	-
Mali	12.5	25.0	23.0	37	40.0	61.5	2.4
Mozambique	-	75.0	79.0	56	21.0	-	-
Niger	9.6	27.0	26.0	36	79.0	68.2	10.2
Rwanda	9.0	64.0	62.0	54	41.0	80.4	4.0
Botswana	3.1	91.0	96.0	31	90.0	51.9	-
Ethiopia	10.0	35.0	38.0	54	50.0	84.9	2.5
Ghana	9.9	73.0	79.0	28	74.0	64.0	1.6
Ivory Coast	8.6	75.0	77.0	36	89.0	58.4	1.5
Lesotho	4.0	102.0	110.0	52	38.0	93.0	-
Swaziland	3.3	106.0	111.0	33	63.0	-	0.6
Tanzania	2.8	93.0	87.0	42	76.0	35.2	28.9
Togo	4.7	123.0	102.0	45	26.0	68.3	-
Zimbabwe	5.6	88.0	131.0	40	-	82.8	-
AVERAGE	4.6	73.8	75.4	41.6	44.0	55.3	2.6

TABLE 9

A.I.D. PROGRAM EMPHASES

	Agri Research	Natural Resource Manage	Child Survival	Popula Assist	Food For Peace	AEPRP	Education
Kenya	1	3	x	x	1		
Liberia	2	3			1		x
Senegal	1	1	x		1	86	
Somalia	4	1			1		
Sudan	1	1	x	x	1		
Zaire	1	3	x	x	1	86	
Zambia	1	3			1	85, 87	
Cameroon	1	2		x	3	87	x
Guinea	4	1			2	86	
Madagascar	2	1		x	2	88	
Malawi	1	2	x		1	85	
Mali	2	1	x		2	85, 88	
Mozambique	-	3		x	3		
Niger	2	1	x		2	88	
Rwanda	2	1			3	85	
Botswana	4	3			3		x
Ethiopia	-	3		x	3		
Ghana	3	3		x	3		
Ivory Coast	3	3			-		
Lesotho	2	3			2	88	x
Swaziland	2	3			3		x
Tanzania	3	2		x	1	87	
Togo	2	3			3	86	
Zimbabwe	1	3			2		x

REFERENCES AND NOTES ON CHARTS AND TABLES

Annex V

General Information

All of the charts in this annex report data on 24 sub-Saharan African countries. The countries are listed in Annex IV, References and Notes on Charts.

Notes on Charts

Data for all of the charts (unless noted) are from World Education Indicators, An Annex to "Improving the Efficiency of Education in Developing Countries," Andre G. Komenan, Education and Training Department, The World Bank, 1987.

- Chart 1: Capital Aid to Education by Component for All Donors, and Chart 2: Non-Capital Aid to Education by Component for All Donors

- Chart 3: Total Education Expenditures as Percent of GNP

Total public expenditures on education include both capital and recurrent expenditures. Total public expenditures on education are expressed in constant 1983 U.S. dollars. Local currencies were converted by applying the World Bank conversion method. Education expenditures are expressed as a percentage of GNP and total government expenditures are computed with constant dollar GNP and total government expenditures. Data on GNP and exchange rates are from the World Bank data base, and total government expenditures are from UNESCO.

- Chart 4: Per-Pupil Expenditures as Percent of GNP Per Capita, and Chart 5: Average Annual Growth Rate of Primary Per-Pupil Expenditures

For both charts, total per-pupil expenditures are expressed in constant dollars and as a percentage of constant dollar income per capita.

- Chart 6: Percentage of Recurrent Expenditures Devoted to Teaching Materials

The data for this chart are from the UNESCO Statistical Yearbook, 1986.

- Chart 7: Student/Teacher Ratios by Level of Education

These ratios are computed as the number of students enrolled divided by the number of teachers, both full and part-time.

- Chart 8: Percent of Cohort Reaching Fifth Grade

The percentage of cohort reaching fifth grade is the ratio of fifth grade enrollment over first grade enrollment five years earlier. Repetitions and dropouts are not represented because these data were not available.

- Chart 9: Repeaters as Percent of Total Enrollment, Primary Level

The number of repeaters has been divided by the number of students enrolled for the same year.

#### NOTES ON TABLES

Data for Tables 1, 2, 3, 6, 7, 8, and 9 are from the World Bank's Education Policies in Sub-Saharan Africa: Adjustment, Revitalization, and Expansion, 1987. Data for Tables 4 and 5 are from External Aid to Education in Sub-Saharan African Countries, Millot et al., The World Bank, 1987.

- Table 1: Selected Sub-Saharan African Countries by National Income, A.I.D. Category, and Population

- Table 2: Selected Sub-Saharan African Countries Ordered by Size of Population

This is the same list of countries reported in Table 1, but they are ordered by size of population of the countries.

- Table 3: Economic Outlook of Countries

- Table 4: Capital Aid to Education in Sub-Saharan African Countries by Donor. Percent of Total Aid to Each Country by Each Donor

Capital expenditures include expenditures on land, buildings, construction, equipment, etc. They also include loan transactions.

- Table 5: Non-Capital Aid to Education in Sub-Saharan African Countries. Percent Contributed by Each Donor Country

Non-Capital expenditures include expenditures on administration, teachers' emoluments and supporting teaching staff, school books and other teaching materials, scholarships, welfare services and maintenance of school buildings.

- **Table 6: Financial Sustainability: Total Education Expenditures**
- **Table 7: External Aid to Education in Sub-Saharan African Countries: Capital Aid**
- **Table 8: Sustainability - Efficiency and Quality**
- **Table 9: A.I.D. Program Emphases**

**AFRICA BUREAU BASIC EDUCATION ACTION**

**PD-AAZ-086**

**PLAN**

**1 OF 1 (24X)**

**AFRICA REGIONAL**

**1988**

**ACTION PLAN**