

2. The Provision of Education and its Costs: *Richard Jolly*

“By its very nature, the Commonwealth must be pre-eminently concerned with the issues of poverty and must be militant in its pre-occupation with development”: *Shridath Ramphal, Commonwealth Secretary-General.*

“To Plan is to Choose”: *Julius Nyerere, President of Tanzania.*

These forthright statements on development priorities and the need for clear choices provide the framework within which the provision of education and its costs will be considered. This framework is one which starts with the recognition that past development patterns over the last two decades have proved seriously inadequate. There have been growth and dramatic changes in many ways but the benefits of development have largely accrued to the better off — to the better off groups and regions within countries and to the better off countries within the world. The result is that in many countries the poor today are more numerous and often in more serious poverty than ever before.

If this situation is to be significantly improved by the end of the century, major changes in development strategy are required. Numerous studies have shown that there is an urgent and inescapable need for the widespread adoption of projects, programmes and policies from which the less well off can directly benefit. There is a parallel need for changes within world economic institutions and organizations to enable less well off countries to obtain the resources and technologies which such a change of strategy will require. In short, measures are needed, nationally and internationally, to support strategies to eradicate poverty and to meet the basic needs for all the population of each country, not merely the half or two-thirds which is financially better off.

This is not the place to elaborate a full list of basic needs or the details of how to achieve them. But amongst such basic needs is education — sufficient education to enable each person to develop his or her talents and abilities and to acquire the knowledge, skills and confidence to play a full and effective part in such development; and a total system of education — formal and informal and of the quantity, quality and relevance at all levels — to provide for broad-based development and to sustain a strategy focused on basic needs for the whole community.

One should not underestimate the full significance of what it means to approach the topic — the provision of education and its costs — within a framework of national strategies towards meeting basic needs. In part, it certainly means asking how education can be provided to *all* as one of the key elements in the package of basic needs. But it means much more than this. It means asking how the expansion of education can take place in ways which are also part of a general strategy to contribute to meeting the full range of “basic needs” in other respects. Again in part this is to make sure that education helps to develop the skills and commitments which a country will need if the goods and services are to be produced and distributed in ways which meet the basic needs of all. But it also means that the whole set of inter-relationships between the education system

and the rest of the economy should strengthen the institutions and capacity of society to meet basic needs. This applies particularly to education's role in the job-market linkages between school and work — that is in the structure of salaries for educated persons, in the use of educational certificates as a means of selection for jobs; the whole way the content and organization of schooling interacts with social and economic structures. To give serious priority to basic needs is to ask how education and the school system in all these respects ought to be changed.

This framework defines the crucial questions for considering the provision of education and its costs, not as an abstract academic exercise but in relation to these specific issues of broader “basic needs” strategy. The first of these questions is: What options exist for meeting the basic educational needs of all persons within our countries within the foreseeable future and within the realities of economic and financial cost constraints? This, however, cannot adequately be assessed without considering two related questions: What are the critical cost constraints — and what explains the large and rapidly rising costs of education throughout the Commonwealth, especially in the poorer Commonwealth countries which still have relatively low enrolment ratios?

These of course, are not the only issues involved — but certainly they are important ones. In the course of attempting to answer them, I hope to have indicated at least an approach to the analysis of other more general issues of educational costs. This analysis will distinguish sharply between financial costs, which already are usually pushing against budgetary constraints, and what may be called the real manpower costs, which are usually in most respects far inside the limits of available resources.

Educational Realities — the Starting Point

Tables 1, 2 and 3 present the basic data on enrolment ratios and the growth of enrolments and public expenditure on education over the last two decades. These data are familiar — probably only too familiar in terms of painful experience for those in Ministries of Education daily wrestling with ways to match the political ambitions for an expanding system with the financial constraints of the government budget. At the same time, one may miss some of the major tendencies, common to most developing countries, just because the basic data are so well known. These tendencies are:

- (a) Educational enrolments have risen rapidly in all countries — but almost always more rapidly at higher levels than at secondary and very much faster at secondary than at primary level.
- (b) Educational enrolment ratios, however, have risen more slowly and still spread over a wide range. Primary enrolment ratios in the African Commonwealth countries have risen from half to over three-fifths of the age group but are still substantially below those in Asia. In the Caribbean and most other Commonwealth areas, universal primary education has virtually been achieved. Secondary school enrolment ratios have risen rapidly in all parts of the Commonwealth, most rapidly in Africa, least in the developed Commonwealth, but the range of enrolment ratios is still very wide at secondary level. At university level, not surprisingly, the differences in enrolment ratios are widest of all.

(c) Public expenditure on education has risen extremely rapidly in virtually all countries; two, three, sometimes four times faster than total enrolments and in almost all cases considerably faster than either government revenue or the Gross National Product.

Table 1

Primary, Secondary and Tertiary Enrolment Ratios of Commonwealth Countries by Main Regions (total enrolments at each level as a percentage of eligible school age population)

	No. of countries covered	Primary Level			Secondary Level			Tertiary Level		
		1960	1970	latest	1960	1970	latest	1960	1970	latest
Africa	13	48	56	63	4	10	12	0.2	0.7	0.6
Asia	7	81	90	89	22	40	43	1.3	3.2	3.4
Caribbean	4	113	104	103	25	40	45	0.7	2.7	3.6
Other	2	108	106	105	17	38	48	NA	3.4	4.1
Developed Commonwealth	4	112	109	106	61	76	76	15.0	25.5	26.4

(Source: UNESCO Data, given in Appendix Table A.2)

Africa	As Table 2 but excluding Seychelles
Asia	As Table 2 but excluding Bangladesh
Caribbean	Barbados, Guyana, Jamaica, Trinidad & Tobago
Other	Fiji, Malta
Developed	Australia, Canada, New Zealand, United Kingdom

Table 2

Average Public Expenditure on Education of Commonwealth Countries by Main Regions (regional averages are unweighted averages of country or region)

	No. of countries covered	Percentage of G.N.P.			Percentage of all Public Expenditure		
		1960	1970	1970+	1960	1970	1970+
Africa	14	3.2	3.8	4.1	14.7	15.5	13.2
Asia	5	3.0	3.7	3.8	NA	13.7	14.3
Caribbean	6	2.8	5.0	5.9	14.5	19.2	18.5
Other	6	NA	4.8	6.1	NA	16.2	16.7
Developed Commonwealth	4	3.4	5.8	6.0	NA	13.2	25.9
Total	35	3.2	4.1	4.7	14.7	15.0	15.6

(Source: Appendix Table A.1)

Regions defined as in Table 3 except that Asia excludes Bangladesh

Table 3

Average Growth Rates of Educational Enrolments by Level and Public Expenditure on Education in Main Commonwealth Regions
(regional averages are the unweighted averages of country growth rates in the region)

Region	No. of countries	Primary Level			Secondary Level			Tertiary Level			Public Expenditure		
		1950—60	1960—70	1970+	1950—60	1960—70	1970+	1950—60	1960—70	1970+	1950—60	1960—70	1970+
Africa	14	6.3	5.9	5.6	16.3	13.3	10.4	16.9	26.8	13.2	16.1	14.1	16.6
Asia	8	7.3	3.5	1.4	13.1	12.3	9.5	13.6	9.8	10.5	18.3	10.2	4.4
Caribbean	6	3.0	2.4	1.7	13.4	9.3	8.8	11.7	19.5	42.0	11.4	17.0	8.6
Other	6 ^a	4.6	1.5	3.3	14.0	11.9	6.5	NA	5.2	13.6	12.8	14.6	11.2
Developed	4	3.4	1.8	2.4	6.8	4.4	14.9	5.1	10.8	4.5	13.0	13.0	14.6
Commonwealth													
Total	38	5.3	3.7	2.9	13.8	11.3	9.8	11.5	17.3	13.6	15.0	13.7	12.8

(Source: Appendix Table A.3)

Africa:	Botswana, Gambia, Ghana, Kenya, Lesotho, Malawi, Mauritius, Nigeria, Seychelles, Sierra Leone, Swaziland, Tanzania, Uganda, Zambia
Asia:	Bangladesh, Cyprus, India, Malaysia, Sabah, Sarawak, Western Malaysia, Singapore, Sri Lanka
Caribbean:	Bahamas, Barbados, Grenada, Guyana, Jamaica, Trinidad and Tobago
Other:	Fiji, Malta, Nauru, Papua New Guinea, Tonga, Western Samoa
Developed countries:	Australia, Canada, New Zealand, United Kingdom

Note: Data are not always available for all periods for all countries in each region. In such cases, the regional average refers to the average of those data which are available as indicated in Table A.3.

The share of total government expenditure going on education has also increased significantly, and has, in increasing numbers of countries, reached proportions which are said to mark the limits of what is politically acceptable.

More significant, these financial constraints on further educational expansion co-exist with the following paradoxical features of the educational scene.

(a) Considerable and sometimes growing unemployment of school leavers. In Asia these are graduate and secondary school leavers; in Africa, so far, mainly secondary and primary school leavers. This phenomenon is so well known that it needs little elaboration — except to note that the causes are often more complex than often assumed and that visible unemployment of the educated is usually only the tip of an iceberg of frustration and under-utilization of skills and education which involves those without educational qualifications as well as those who have some.

(b) Increasing evidence of education's inappropriateness for broad-based development, particularly for the mass of the rural population. The content and approach of primary education is still too often far removed from the realities of rural development. Higher levels of education are almost entirely concentrated on the needs of the urban modern sector and civil service, even in those areas like agriculture or engineering or medicine, where expertise in relevant rural small-scale technology is desperately needed if basic needs are to be satisfied.

(c) A particular weakness, usually emphasized even less than others is the inadequacies of education for enabling women to play a fuller and more effective role in both household and economic activities. In rural areas, the over-employment of women is often a critical constraint on raising living standards for the whole family — yet rural education has done little to develop the skills or attitudes to deal with it.

(d) In spite of higher unit costs and educated unemployment, it is enrolments at higher and secondary levels which have continued to expand considerably faster than enrolments at primary level. Moreover, in a number of countries — and perhaps *generally* in Africa — the rate of expansion at secondary and higher levels has exceeded the planned rate over much of the period since 1960, while the actual expansion of primary enrolments has fallen short of the planned ratio.

(e) Finally, education which is often justified as an instrument for achieving greater equality of opportunity and even income, has emerged as a major social mechanism for re-inforcing inequality of opportunity and income.

Educational certificates are used in both the public sector and the larger firms of the private sector to select people to fill the best jobs, sometimes to determine promotion and frequently to fix the salaries of those who get the jobs.

The differentials paid at graduate and secondary level are not small, as Table 4 illustrates. Combined with sharply narrowing educational pyramids in which barely ten in a hundred of those who start primary enter secondary school and barely three of them go to higher education, the inequality of the interlocking process is considerable: for those who make it

Table 4

Salary ratios of persons with graduate and primary-level qualifications to per capita income in the public sector in selected Commonwealth countries 1963–1976

	Period	Graduate level salary to per capita income	Primary level salary to per capita income
<i>Africa</i>			
Botswana	64–70	31.9	3.2
	70–74	17.0	2.0
	74–76	16.7	2.8
Ghana	67–74	9.5	1.2
	74–75	11.1	2.3
Kenya	67–70	25.8	3.7
	70–74	23.7	3.5
Malawi	70–71	33.3	2.8
	75–76	16.7	1.4
Mauritius	66–67	8.7	1.3
	70–71	10.0	1.7
	75–76	6.1	0.8
Nigeria	63–64	32.4	5.6
	68–69	20.3	4.0
	72–73	15.8	3.6
Sierra Leone	63–64	17.2	1.4
	69–70	23.6	2.0
	74–75	17.7	1.7
Swaziland	67	21.2	2.3
	69–70	17.1	2.4
	71–72	12.3	2.1
Tanzania	64–65	37.2	4.2
	70–71	25.8	3.6
Uganda	67–73	21.5	3.2
Zambia	70–74	14.1	2.7
	74–	13.3	2.6
<i>Asia and Pacific</i>			
India	73	12.3	3.2
Sri Lanka	74	7.3	1.9
Fiji	73	6.6	2.2
<i>Caribbean</i>			
Barbados	63–64	7.0	1.5
	68–69	6.4	1.6
	73–74	5.2	1.6
Trinidad & Tobago	71	6.6	1.6

Source: Recurrent Estimates and Salary Commissions of the countries concerned

to the top and into a graduate job, earnings of often 15 to 50 times per capita income, plus regularity of incomes, job security, annual increments and often virtually assured promotion prospects. By comparison, earnings for those who only get as far as a job requiring primary education are usually 3 to 5 times per capita income — tiny in relation to the

earnings of those in jobs requiring graduate qualifications but even then considerably in excess of the earnings in cash or kind of the typical farmer.

These paradoxes are related in that one of the main causes for so many school leavers being unemployed is the existence of a structure of salaries and incentives which draws most of the skilled manpower away from the countryside to the towns and from occupations of priority for meeting basic needs towards educationally overloaded occupations and sectors where under-employment at junior and middle levels often co-exists with over-worked civil servants at the top! This inappropriate salary structure, by raising the costs of employing skilled persons, is also a main reason why it is impossible to expand the school system, health facilities and other services and activities needed for meeting basic needs. This wage and salary structure is also the prime cause of the unit costs of secondary and higher education being so much higher than the unit costs of primary. Essentially it is a wage and salary structure out of line with the resources of the whole country.

Given such differentials, perhaps the contradictions seem less paradoxical and more an expression of sharp and complex contradictions between individual (and class) interests and social needs. Education is the ladder of success, which allocates the rewards and legitimizes the whole system. But, in doing so, enormous rewards have been created. Students, parents, the general public, the politicians, even the educational administrators have been drawn into a process which ever expands the number of places at secondary and higher levels — even with the risk of unemployment. All this has in effect been increasingly at the expense of resources for primary education. Yet the process can only continue for a limited time. Eventually, it will become too expensive. But the whole content and focus of education will have been corrupted by pre-occupation with its use for access to higher incomes and better jobs. Education's contribution to meeting the basic needs of the majority of the population and to rural development may have been virtually destroyed.

The Crucial Elements in Educational Costs

A first step to unravelling what needs to be done is to decompose public (or private) expenditure on education into the crucial elements which determine unit costs. In fact, this is done far too rarely; instead, costs per student at different levels or in different types of education are calculated, quoted and used to determine policy in ways which are often highly misleading with respect to the true economic costs and resources involved. Like many other statistics, until one looks behind them, unit costs of education hide more than they reveal.

The critical determinants of educational costs* are in most countries the following:

*Fuller explanations of the points that follow can be found in *Costs and Confusions in African Education*, Richard Jolly (ed), *Education in Africa; research and action*. East African Publishing House, (Nairobi) 1969.

Recurrent Costs

The level and structure of teachers' salaries — which in turn reflect (a) qualifications and grading of teachers at each level of education, (b) the relationship between teachers' salaries and that of others in the educated professional groups, and (c) the level of salaries of the educational professional group as a whole.

The average pupil-teacher ratios at each level of education — which in turn reflects (a) class size and (b) staffing and school organization.

The non-salary costs of education — which at primary and secondary levels are almost always a minor part of total recurrent costs in all countries, frequently less than 20 per cent. At tertiary level, these may become more important — and occasionally a cause of unnecessary waste.

Capital Costs

The capital costs per place — which usually reflect (a) the standards and general quality chosen for school and university accommodation as much as (b) actual space provision and (c) general building costs. Critical also is (d) the efficiency of school organization — notably whether shift use is common or exceptional, whether school and university facilities are left vacant during vacations and whether subject options and timetabling make intensive use of specialist facilities like laboratories and assembly halls instead of requiring extra provision.

These four factors explain why the proportions of national income spent on education in different countries differ so much less than the percentage of school-age children attending school. Among Commonwealth countries public expenditure on education as a percentage of national income averages 4.8 per cent, ranging (as Table A.1 shows) from 2.6 to 8.1 per cent with three-quarters of the countries falling between 3.0 and 6.4 per cent. Yet enrolment ratios in the same group of countries range as widely as 34 to 112 per cent of the relevant age group at primary level, 3 to 83 per cent at secondary level, 0.2 to 37.3 per cent at tertiary level. These country differences in enrolment ratios (shown in Table A.1) are far from simply matched with the narrower differences in public expenditure on education. Why?

The answer to the question is tremendously significant for illuminating the cost constraints in education. In brief, unit costs of education at each level differ much less than per capita income between countries. *Thus the poorer countries have to spend a much higher share of their resources for each person in education than the richer countries.** On top of this, the poorer countries have experienced higher rates of population growth than the richer countries, usually 2 to 3 per cent per annum against about

*This relationship does not appear clearly in data for which student unit cost figures encapsulate different proportional emphases on primary, secondary and tertiary education. The fact that the proportional emphasis placed upon each level of the system differs strongly between countries is itself a major reason for different unit costs, and different percentages of the budget and G.N.P. going to education. Since university education is not as important in the poorest countries, this improves their costs picture relative to the rich groups.

half per cent per annum. This in turn results in the school-age population being a substantially higher proportion of the total or working population than in the more developed countries. The economic impact is made more severe by the tendency in many areas to build secondary and higher education facilities at standards which often put considerable strain on the government budget.

It is the first two factors — namely the average level of teachers' salaries and the pupil-teacher ratios — which explain the relatively high level of unit costs. As a multiple of per capita income, teacher salaries in Africa and the Caribbean are much higher than in Asia and in virtually all developing countries are higher than in the developed countries. This is not to say that teachers alone are well paid. Often they are worse paid than many others with jobs requiring similar educational qualifications. But as a group, teachers and others with qualifications are often paid very highly in relation to the resources and average incomes of the country — with the result that any given share of the nation's resources buys much fewer teaching hours than it would in countries where salaries of the educated are only two or three times per capita income.

Two further difficulties follow from this situation. First, the cost of raising the quality of the teaching force by employing more educated teachers or upgrading existing teachers becomes proportionately more expensive than in richer countries. Second, the cost of expanding secondary and higher educational levels, which by definition requires more highly qualified and trained teachers, also absorbs disproportionately large fractions of public expenditure on education.

Both these factors have operated over the last two decades or longer and account for the very rapid rise in educational costs in spite of much slower increases in enrolments. Since 1950, total public expenditure on education has risen on average some 21 to 23 times in most regions of the Commonwealth, and considerably faster in Africa, where on average it has risen 36 times. The increase of enrolments explains a good part of this rise in education costs, but in total less than half. The remainder is mainly increases in teachers' salaries, the cumulative result of inflation, upgrading, proportionately faster expansion at secondary and higher levels requiring more qualified staff, and to some extent — particularly in the earlier period — increases in teachers' salary scales in relation to the cost of living.

In passing one may note two factors which have had little influence on changes in costs — though in principle they might have been important. The first is the pupil-teacher ratio, which has changed little since 1960. In spite of a slight tendency to have risen at primary levels and slightly more at secondary and probably higher levels, the potential for major savings in costs by changes in the pupil-teacher ratio has not been exploited. In contrast, and most unfortunately for education quality, expenditure on non-salary items seems too often to have been too low, resulting in ill-equipped classrooms and students and teachers without even sufficient basic books for many subjects. This is particularly tragic because compared with salaries, the impact on total costs of more and better equipment at primary (and often secondary levels) is almost negligible — yet its effect on educational performance is likely to be considerable.

The Choices Ahead — Difficult Options but Real Opportunities

We are so accustomed to treating the financial constraints of education and so much of its cost determining structure as given that we often fail to sense the magnitude of what we sacrifice through not exploring options with sufficient imagination. In order to make this clear, one can calculate the extent to which it would be possible to move rapidly to universal primary education without any increase in total educational expenditure. This goal is of course only one of the quantitative measures which could be used. It is chosen, partly because it is in line with the basic needs strategy and partly because it illuminates more general issues, but in an area which in many countries is already accepted as one of high political priority. Many politicians might think again at the difficulties of adopting certain cost saving measures if they realized the full extent to which they might make possible a rapid move to universal primary education.

According to the figures for the latest year available, twelve Commonwealth countries out of the 30 for which enrolment data are given in the latest UNESCO Statistical Yearbook had achieved universal primary education — judged by the admittedly approximate measure of a primary enrolment ratio of 100 or more. The other 18 countries were distributed as shown below:

Primary enrolment ratio for latest year available	Number of countries
80–99	7
60–79	4
40–59	5
30–39	2
	18

Although these 18 countries have not yet achieved universal primary education, the failure cannot be blamed on the lack of real resources. Education is essentially a labour intensive activity. The human resources required for expansion, persons with the skills and abilities to be teachers, are not lacking. Many such persons, as noted already, are under-employed if not unemployed and seeking work. The problem is not to find them — but to mobilize them, to enable them to use their skills and abilities productively.

The conventional way to mobilize them as teachers (or into any other activity) is simply to pay them a salary. But this runs against the financial cost constraints in the sense that more countries lack the finance to pay the additional salary bill and, in turn, the foreign exchange and sometimes local productive capacity needed to supply the goods on which the additional salaries would be spent.

Can nothing be done? In principle, there are two ways around these constraints. One can “wait for growth” — for additional production to become available which will provide the foreign exchange and local resources needed for additional teachers’ salaries and their additional consumption. Quite apart from the delays, however, this strategy may never succeed. Salaries and consumption levels have frequently shown a tendency to rise along with overall growth of national income, thus absorbing the gains in paying teachers more rather than in providing for more teachers.

The other objection to this approach is more fundamental. Many of the disastrous problems and inadequacies of the present situation arise precisely because of the failure over the last two decades to achieve redistribution with growth. Structures of production, employment, salaries and government services have been inherited or built up which prevent the general achievement of basic needs for many of the same reasons why basic education for all seems unattainable. Unlocking the structures which will make it possible to mobilize additional teachers for education is thus part of the wider process of meeting basic needs in general. Similarly, to postpone action on mobilizing under-employed manpower for teaching is probably to postpone action on mobilizing under-employed people and resources for meeting other basic needs as well.

What is the alternative to “waiting for growth”? Essentially it is to provide for educational expansion (and to tackle other educational problems) within the resources already available, especially within available human resources. This means working out how educational goals can be achieved by adapting institutions and incomes structure to achieve them rather than adapting the goals to fit unchanged organization and limited resources.

Given the determinants of educational costs identified earlier, there are three major ways in which this can be done: (a) a revision in the effective salary structure of teachers and other employees with comparable education; (b) changes in pupil-teacher ratios and the other structural factors determining the major part of educational costs; and (c) much greater provision of financial support and resources from abroad.

A revision in the effective salary structure of teachers and other educated persons would make it possible to employ more teachers within a given budget. But it would also make possible a general narrowing of excessive differentials and incentives, one of the critical requirements for the eradication of educated unemployment and the establishment of an incentive structure related to the priorities of rural development and basic needs.

A wholesale restructuring over time of wages and incomes implies a major and sustained incomes and wages policy applying to all educated persons and not just teachers. One must frankly admit that in spite of the obvious difficulties in many countries, this seems to be an inescapable need if educated unemployment is to be eliminated and basic needs met.

At the same time, important though less satisfactory alternatives are available, both as positive measures in themselves and hopefully as steps towards more fundamental reforms. Such measures include: the adoption of national service wage scales for teachers and others in the first two or three years after training, the use of volunteer teachers or pupil-monitors, and a revision of the automatic link between teachers' qualifications and individual salary grading. Some reduction of excessive salary differentials in general has often been achieved as a by-product of inflation, by providing only partial compensation for cost of living increases among the higher income groups but full compensation for those at the minimum wage level. All these approaches are or have been in operation — though often their broader significance as steps towards more general changes in salary and incentive structures has not been emphasized.

One quite different approach is for government to provide its financial support for education to the local community — and to leave it to the community to supplement in cash or kind the teacher's remuneration, in the form of free housing, free food or assistance with work on the teacher's farm etc. Such an approach, in principle, offers a major way to bridge the gap between limited government financial resources and the additional consumption which employing more teachers would generate. It does this by building on the productive resources of the rural areas and not just by finance from central government (though it implies the need to diminish urban bias elsewhere in the community).

Each of these measures can be used singly or in concert, to make possible changes in education expansion and improvements in the short run and, at the same time, to move towards broader changes in salary structure. The extent of the salary changes required will naturally vary with the particular circumstances of each country. If at all possible, the measures should be applied to all salaried workers with educational qualifications, not just to teachers.

The second approach, whether with or without some change in salary structure, would be by changes in the factors internal to the educational system which largely determine its financial costs. These are the pupil-teacher ratio at primary level and those factors at secondary and higher levels which determine unit costs (which in principle could be both salary and non-salary factors). For most of the 18 countries which have yet to achieve universal primary education, this target is within reach with changes in these two factors and no major changes in educational expenditure. For instance, as shown in Table 5:

(a) Of the seven countries with primary enrolment ratios between 80 and 99, four could reach an enrolment ratio of 100 by raising their average pupil-teacher ratio to 40 and the other three by raising it to 43, 46 and 54. Alternatively, if unit costs in secondary and higher education were reduced by 20 per cent and the savings transferred to primary education, the 100% enrolment ratio could be achieved with a reduction in the present primary pupil-teacher ratio in two of these three countries.

(b) Of the four countries with current primary enrolment ratios between 60 and 79, an expansion in coverage to 100% enrolment ratios is also within reach with cost saving changes. Such enrolment ratios are achievable with pupil-teacher ratios of no more than 42, providing 20 per cent of expenditure could be shifted from secondary and higher education to primary. Without this, pupil-teacher ratios would have to rise to just over 50.

(c) For the seven countries with the latest primary enrolment ratios recorded between 30 and 59, the changes required to reach 100% enrolment ratios are naturally more extreme. Even with a 20% shift in expenditure to primary, pupil-teacher ratios would have to increase to around 60 in four cases. In the cases of Tanzania and Malawi, where the average pupil-teacher ratios are already recorded around 50, a pupil-teacher ratio of about double this would be reached if a 100% enrolment ratio were to be achieved with no increase in total expenditure: in these cases, an alternative approach is obviously necessary.

Table 5

Changes required to achieve 100% primary enrolment ratios within developing countries of the Commonwealth

	Latest year data		Primary pupil-teacher ratios required to achieve 100% primary enrolment ratio	
	enrolment ratio	pupil-teacher ratio	with no shift in expenditure	with 20% expenditure shift from secondary and higher levels
<i>Current primary enrolment ratios of 100 or more</i>				
Lesotho	102	45	—	—
Singapore	105	31		
Sri Lanka	102	—		
Barbados	101	26		
Fiji	102	32		
Jamaica	106	57		
Trinidad & Tobago	110	35		
<i>Current primary enrolment ratios between 80 and 99</i>				
Mauritius	81	29	36	33
Swaziland	90	39	43	34
Zambia	89	48	54	46
Cyprus	78	28	36	29
Malaysia—Sabah	97	27	28	25
Sarawak	81	37	46	42
W. Malaysia	92	31	34	29
Guyana	93	32	34	30
	88	34	39	34
<i>Current primary enrolment ratios between 60 and 79</i>				
Botswana	71	34	48	40
Kenya	74	32	43	37
India	68	35	51	33
	71	34	47	37
<i>Current primary enrolment ratios less than 60</i>				
Gambia	35	28	80	58
Ghana	55	29	53	42
Malawi	51	52	102	83
Nigeria	41	34	83	64
Sierra Leone	34	32	94	58
Tanzania	43	48	112	96
Uganda	48	33	69	57
	44	37	85	65

It is not suggested that changes of this sort would be lightly undertaken, let alone easy to implement. There is also a danger in drawing such firm conclusions from macro data. Particularly in countries with wide variations in population density, double sessions in primary schools may be impossible unless boarding facilities are provided. In countries with large land area relative to population, building more schools and providing more teachers may be the only option for a significant proportion of the

out-of-school population. Nevertheless, before they are dismissed as totally impracticable, the following points should be carefully considered.

Pupil-teacher ratios of 50 or even 60 do *not* necessarily mean classes of this size. By means of double-session teaching, alternate classes attending on alternate days, pupil-teacher ratios of 50 or even 60 can be combined with classes of around 30, certainly less than 40. Such methods have all been employed at different times in both developed and developing countries. No doubt they are not ideal — but they may be preferable, educationally and politically, to either very large class sizes or to a whole educational system which leaves large numbers of a nation's children without school places. It should also be noted that:

- (a) Pupil-teacher ratios are on average higher in those developing countries which have attained primary enrolment ratios of 100 or more than in countries which have not.
- (b) Pupil-teacher ratios of the magnitude of 45 and 50, even 60, both with and without double session teaching are found in a number of countries today.
- (c) Educational research has established no firm relationship, positive or negative, between class size and student performance.

The third main option is to rely on outside resources rather than national ones — and so is hardly an example of the self-reliant approach. Nor is it in the present world a serious alternative to changes in salary or institutional structures within countries. International resources of the scale required are simply not in sight — and there is in addition the reluctance of many donors to meet local costs in the way which would be required. It will be recalled that the 1961 Addis Ababa Plan for educational expansion in Africa was based in part on a massive inflow of resources which, in the event, proved to be totally unjustified.

Nevertheless, in a Commonwealth meeting the international dimensions of support for education need to be mentioned. Logically, the international redistribution of resources required is no less justified than the redistribution within countries which the earlier options implied. Moreover, in certain respects — notably in the flows of educational aid and students in one direction and the not unimportant brain drain flows in the other — international educational exchanges already take place. For certain of the poorer countries and in certain areas of specialist skills and technology a continuation and even some expansion of this will be necessary.

If this is to take place in ways which help rather than hinder the earlier policy changes, however, certain changes are required in the way it takes place:

- (a) The supply of expatriate teachers at salary levels and living standards far above local levels only exacerbates the reform of salary structures earlier outlined. The supply of trained teachers on volunteer terms or of teachers from other Third World countries might help to avoid many of these problems.
- (b) The old question of the relevance of curricula, textbooks, technologies and approaches imported from abroad takes on a new importance in the light of basic needs and the priority for rural development.

(c) Support from abroad which sustains or helps to develop centres of excellence rather than centres of extravagance is obviously vital. One needs to emphasize quality in terms that matter and to avoid excessive expenditure in areas which raise unit costs with little effect on educational quality.

All these options imply some changes in the distribution of income. A few may imply some changes in the quality of education, to the benefit of those at present outside the system but at possibly some cost to those at present within it.

To Plan is to Choose

Cost or financial arithmetic can illustrate some of the issues: it can even help to dispel some of the illusions as to the nature of the real constraints involved. The purpose of this paper is not to suggest that achieving universal primary education or other educational changes is simply a matter of altering teachers' salaries, juggling with the pupil-teacher ratio or reducing unit costs in secondary and higher education. The educational, organizational, political and social issues are infinitely more complex than this. The financial issues are *not*. Yet it is the financial issues which usually are the ones which dominate the discussion as to why it is thought impossible to meet basic needs for education for all the population within the foreseeable future. In terms of finance, the goal is within the grasp of every Commonwealth country, if only we choose to achieve it.

Table A.1

PUBLIC EXPENDITURE ON EDUCATION

	Local Currency	Total (000's of Local Currency)					Percentage of Gross National Product				Percentage of all Public Expenditure				
		1950	1960	1970	Latest*	1950	1960	1970	Latest*	1950	1960	1970	Latest*		
AFRICA															
Botswana	Rand	162	635	3,025	3,547 ¹	NA	NA	3.6	3.5 ¹	NA	12.9	12.3	9.4 ¹		
Gambia	Dalasi	NA	1,010	2,558	3,528 ²	NA	NA	3.0	3.3 ²	NA	NA	NA	NA	NA	NA
Ghana	Cedi	4,896	32,740	95,430	115,534 ¹	NA	3.4	4.2	4.6 ¹	NA	14.4	NA	NA	NA	NA
Kenya	Shilling	41,600	208,000	452,260	789,200 ²	NA	4.6	4.0	5.5 ²	NA	20.4	14.4	18.6 ²		
Lesotho	Rand	330	858	2,286	2,388 ¹	NA	NA	NA	4.4 ¹	NA	NA	13.3	17.0 ¹		
Malawi	Kwacha	209	3,286	10,804	10,973 ²	1.5	3.6	4.0	3.0 ²	NA	14.8	13.1	NA		
(pound)															
Mauritius	Rupee	5,149	23,249	38,818	47,354 ²	NA	3.7	3.7	3.4 ²	NA	13.9	11.5	9.0 ²		
Nigeria	Naira	NA	46,542	192,732	NA	NA	2.1	3.5	3.9 ³	NA	NA	33.7	NA		
Seychelles	Rupee	467	1,133	4,289	4,900 ¹	NA	NA	NA	NA	NA	NA	11.5	8.9 ¹		
Sierra Leone	Leone	792	4,274	10,349	10,845 ¹	0.8	NA	2.9	3.0 ¹	NA	NA	NA	NA		
Swaziland	S.A. Rand	162	592	3,737	4,502 ¹	NA	NA	4.7	4.5 ¹	NA	10.0	18.7	NA		
Tanzania	E.A. Shilling	28,640	30,080 ^a	330,039	368,642 ¹	NA	NA	3.6	3.8 ¹	NA	NA	15.4	15.0 ¹		
Uganda	Shilling	17,840	104,160	361,646	NA	NA	3.4	4.3	NA	NA	18.7	17.8	NA		
Zambia	Kwacha	1,008	6,832	47,973	76,416 ²	NA	1.8	4.3	6.3 ²	NA	12.5	9.3	14.6 ²		
ASIA															
Cyprus ^T	Pound	915	2,640 ^a	7,060	8,473 ²	2.3	2.3 ^a	3.1	2.9 ¹	NA	NA	17.3	15.3 ²		
India	Rupee	777,600	3,416,230	10,213,000 ¹	10,939,000 ²	0.8	2.3	2.7	2.6 ²	NA	NA	NA	23.2 ²		
Malaysian Dollar															
Sabah		1,282 ^e	9,599	27,096	30,028 ¹	NA	NA	NA	NA	NA	NA	NA	NA		
Sarawak		1,133 ^e	15,698 ^a	32,976	33,471 ¹	NA	NA	NA	NA	NA	NA	NA	NA		
W. Malaysia		34,178	179,000	534,054	645,848 ¹	NA	3.2	5.5	6.4 ¹	NA	18.0	12.2	10.8 ¹		
Singapore	Dollar	11,217	74,557 ^a	184,492	210,297 ²	NA	NA	3.1	2.7 ²	NA	NA	11.7	9.4 ²		
Sri Lanka	Rupee	111,000	285,974 ^a	544,382	642,523 ²	2.7	4.3 ^a	4.2	4.6 ²	NA	NA	13.4	12.6 ²		

OTHERS												
Australia	Dollar	108,840	413,256	1,167,000 ^b	1,993,000 ²	0.8	1.4	3.9 ^b	4.9 ²	NA	NA	12.0 ^b
Bahamas	Dollar	131	2,139 ^a	22,520	22,867 ¹	NA	NA	NA	NA	NA	NA	23.2
		(pound)										20.3 ²
Barbados	W.I. Dollar	1,396 ^c	3,998	20,969	28,301 ²	2.6 ^c	2.9	7.2	7.9 ²	NA	NA	21.2
Canada	Dollar	454,000	1,590,595	7,244,700	7,900,029 ¹	3.2	4.6 ^a	8.6	8.1 ³	NA	14.3	21.2 ³
Fiji	Dollar	316	2,398	7,661 ⁻	9,233 ¹	NA	NA	4.0	5.5 ³	NA	NA	20.3 ³
		(pound)										
Grenada	E.C. Dollar	421 ^c	1,156	NA	NA	NA	NA	NA	NA	NA	NA	19.5 ²
Guyana	W.I. Dollar	3,366	8,021	23,209	22,367 ¹	NA	3.0	4.4	4.0 ¹	NA	12.1	14.0
Jamaica	Dollar	3,156	11,310	39,151 ^b	68,342 ²	2.0	2.5	4.5 ^b	5.7 ²	NA	16.4	18.5 ^b
Malta	Pound	NA	1,983	6,436	5,864 ²	NA	3.9	6.4	5.3 ²	NA	NA	13.0
Nauru	Aust. Dollar	20	146	706	NA	NA	NA	2.8	NA	NA	NA	14.1
New Zealand	N.Z. Dollar	29,382	84,926	267,616	376,800 ²	2.1	3.2	4.9	5.2 ³	NA	9.2	14.3
Papua New Guinea	Aust. Dollar	NA	5,228	30,833 ^b	42,847 ¹	NA	NA	6.1 ^b	7.6 ¹	NA	NA	17.1 ^b
Tonga	Dollar	NA	252 ^a	675 ¹	718 ¹	NA	NA	NA	NA	NA	17.9 ^a	20.4 ¹
Trinidad & Tobago	Dollar	5,568 ^c	23,344	62,143	NA	1.8 ^c	2.8	3.7	NA	NA	14.9	NA
United Kingdom	Pound		1,168,463 ^a	2,950,354	3,420,292 ¹		4.3 ^a	5.9	5.9 ¹			13.2
Western Samoa	Dollar	324 ^c	442	1,527	1,295 ²	NA	NA	NA	NA	NA	NA	21.8

* Latest year: 1 = 1971, 2 = 1972, 3 = 1973; a = 1961, b = 1969, c = 1968, d = 1959, e = 1951; T = expenditure by office of Greek Education only.
Sources: "Statistical Yearbook", 1969 and 1974. "Education Statistics — Latest Year Available", January, 1976, UNESCO.

Table A.2 ENROLMENT RATIOS (GROSS)

COUNTRY	PRIMARY			SECONDARY			TERTIARY		
	1960	1970	Latest*	1960	1970	Latest*	1960	1970	Latest*
AFRICA									
Botswana	36	66	71 ³	1	8	12 ³	NA	NA	0.31 ²
Gambia	15	32	35 ³	4	9	11 ³	NA	NA	NA
Ghana	59	58	55 ³	2	9	9 ⁰	0.24	0.72	0.74 ¹
Kenya	47	64	74 ³	2	9	11 ³	NA	0.97	1.03 ²
Lesotho	83	95	102 ³	3	7	12 ³	0.22	0.45	0.40 ¹
Malawi	61	36	51 ³	1	2	3 ²	NA	0.25	0.26 ²
Mauritius	86	79	81 ³	25	35	41 ²	0.15	2.53	1.47 ²
Nigeria	37	34	41 ³	3	4	5 ²	0.07	0.30	0.37 ¹
Seychelles	—	—	—	—	—	—	—	—	—
Sierra Leone	23	34	34 ³	3	9	9 ¹	0.16	0.50	0.53 ¹
Swaziland	56	84	90 ³	5	17	25 ³	NA	0.37	0.55 ¹
Tanzania	24	36	43 ³	2	3	3 ³	NA	0.17	0.22 ²
Uganda	51	46	48 ²	4	4	4 ²	0.21	0.57	0.58 ¹
Zambia	47	70	89 ²	1	12	13 ²	NA	0.44	0.44 ⁰
ASIA									
Bangladesh	—	—	—	—	—	—	—	—	—
Cyprus ^T	100	82	78 ²	48	57	66 ³	NA	NA	NA
India	38	68	68 ⁰	9	NA	15 ^f	1.70	4.35	4.35 ⁰
Malaysia	—	—	—	—	—	—	—	—	—
Sabah	62	102	97 ²	8	29	36 ²	NA	NA	NA
Sarawak	72	83	81 ³	10	22	24 ³	NA	0.49	0.48 ²
W. Malaysia	91	89	92 ²	19	34	37 ³	1.47	2.03	2.52 ³
Singapore	111	105	105 ²	32	47	71 ²	NA	8.25	8.28 ²
Sri Lanka	95	101	102 ¹	27	50	52 ¹	0.58	1.09	1.20 ¹
PACIFIC									
Australia	110	106	105 ²	61	83	83 ⁰	13.11	16.70	18.44 ²
Fiji	84	98	101 ¹	15	23	25 ¹	NA	0.90	1.62 ¹
Nauru	—	—	—	—	—	—	—	—	—
New Zealand	106	102	104 ²	60	69	68 ²	23.59	35.96	37.3 ¹
Papua New Guinea	—	—	—	—	—	—	—	—	—
Tonga	—	—	—	—	—	—	—	—	—
Western Samoa	—	—	—	—	—	—	—	—	—
CARIBBEAN									
Bahamas	—	—	—	—	—	—	—	—	—
Barbados	91	105	101 ¹	39	49	51 ¹	0.67	3.57	5.01 ¹
Grenada	—	—	—	—	—	—	—	—	—
Guyana	129	99	93 ²	29	48	57 ¹	NA	1.74	1.97 ²
Jamaica	118	101	106 ²	10	24	32 ²	0.73	3.00	4.79 ²
Trinidad & Tobago	112	110	110 ⁰	22	40	40 ⁰	0.79	2.56	2.56 ⁰
OTHERS									
Canada	118	118	102 ¹	56	77	77 ⁰	16.03	35.49	34.7 ¹
Malta	131	114	109 ²	19	52	70 ²	2.30	5.93	6.53 ²
United Kingdom	94	111	112 ²	67	75	76 ²	9.00	14.00	15.00 ²

(Sources: Statistical Yearbook, 1966 & 1974, UNESCO. Education Statistics — Latest year available, January, 1976, UNESCO)

*Latest 0 = 1970; 1 = 1971; 2 = 1972; 3 = 1973; 4 = 1974; a = 1961; b = 1969; c = 1968; d = 1959; e = 1951; f = 1965; T = from 1965 data excludes Turkish education.

Table A.3

INCREASE IN ENROLMENTS AND EXPENDITURES ON EDUCATION (AVERAGE PERCENTAGE PER ANNUM)

	Primary Enrolments			Secondary Enrolments			Tertiary Enrolments (to the nearest ½ per cent)			Public Expenditure on Education		
	50-60	60-70	70-74	50-60	60-70	70-74	NA	NA	70-73	50-60	60-70	70-71
AFRICA												
Years												
Botswana	8.1	8.6	5.7	15.6	22.5	23.9	NA	NA	36.5	14.5	17.0	17.0
Years												
Gambia	7.4	9.3	6.5	12.4	11.8	5.4	NA	NA	NA	NA	9.5	17.5
Years												
Ghana	6.7	10.6	0.8	39.7	15.4	4.9 p	50-60	60-70	70-73	50-60	60-70	70-71
Years												
Kenya	7.9	6.2	8.4	1.9	17.6	11.2	56-60	65-70	70-73	50-60	60-70	70-71
Years												
Lesotho	4.4	3.0	-1.9	9.7	9.2	16.8	50-60	60-70	70-71	50-60	60-70	70-71
Years												
Malawi	2.6	2.4	14.0	26.6	13.9	10.3	NA	60.5	70-73	NA	12.5	1.0
Years												
Mauritius	6.4	3.0	1.0	18.9	6.9	7.4	50-60	60-70	70-72	50-60	60-70	70-72
Years												
Nigeria	11.6	1.9	9.9	20.2	7.9	13.2	50-60	60-68	68-73	NA	15.5	NA
Years												
Seychelles	2.8	4.6	2.9	10.3	10.6	12.6	NA	11.5	14.5	9.5	13.0	14.0
Years												
Sierra Leone	9.6	6.8	6.4	10.4	16.6	7.2	50-60	60-68	68-73	50-60	60-70	70-71
Years												
Swaziland	9.1	7.2	5.7	16.8	17.2	15.8 g	NA	NA	70-71	50-60	60-70	70-71
Years												
Tanzania	8.7	6.5	9.6	4.9	7.2	5.2	NA	65-70	70-72	50-61	61-70	70-71
Years												
Uganda	9.0	3.1 u	4.5	17.4	2.4 u	3.8	50-60	65-70	70-71	50-60	60-70	NA
Years												
Zambia	5.9	9.2	5.2	22.7	26.5	7.3	NA	66-70	70-73	50-60	60-70	70-72

Table A.3—continued

INCREASE IN ENROLMENTS AND EXPENDITURES ON EDUCATION (AVERAGE PERCENTAGE PER ANNUM)

	Primary Enrolments			Secondary Enrolments			Tertiary Enrolments (to the nearest ½ per cent)			Public Expenditure on Education		
ASIA												
Years												
Bangladesh	NA	65-69	69-73	NA	65-69	7.6	NA	NA	NA	NA	NA	NA
Years	50-60	60-70	70-73	50-60	65-70	5.6	70-73	50-60	60-70	50-60	60-70	70-72
Cyprus ^T	2.7	-1.6	-2.8	9.1	5.6	6.2	8.0	8.0	5.5	10.0	11.5	9.5
Years	50-60	60-70	70-73	50-60	60-67	67-73	50-60	50-60	60-70	50-60	60-71	71-72
India	6.2	5.7	0.8	7.8	10.3	17.6 g	10.5	10.5	12.0	16.0	10.5	7.0
Malaysia												
Years	50-60	60-70	70-72	51-60	60-70	70-72	NA	NA	NA	51-60	60-70	70-71
Sabah	9.4	9.3	1.5	22.2	22.2	14.9	NA	NA	NA	26.0	11.0	11.0
Years	55-60	60-70	70-74	55-60	60-70	70-74	NA	NA	65-70	51-61	61-70	70-71
Sarawak	12.2	4.3	4.1	8.1	14.4	9.5	NA	NA	24.0	30.0	8.5	1.5
Years	50-60	60-70	70-73	50-60	60-70	70-73	50-60	50-60	60-70	50-60	60-70	70-71
W. Malaysia	6.5	2.5	2.6	19.0	12.2	8.1	27.0	27.0	8.0	18.0	12.0	21.0
Years	51-60	60-70	70-73	51-60	60-70	70-73	51-60	51-60	60-70	50-61	61-70	70-72
Singapore	9.2	2.5	-1.7	20.2	9.8	6.2	18.0	18.0	3.0	19.0	10.5	7.0
Years	50-60	60-70	70-73	50-60	60-70	70-73	50-60	50-60	60-70	50-61	61-70	70-72
Sri Lanka	5.1 s	-1.8	-2.7	5.1 p	16.1 L	4.1	4.5	4.5	6.0	9.0	7.5	8.5
PACIFIC												
Years												
Australia	50-60	60-70	70-73	50-60	60-70	70-73	50-60	50-60	60-70	50-60	60-69	69-72
Years	4.5	1.5	0.1	7.5	5.7	-2.8	8.5	8.5	8.5	14.5	12.5	19.5
Fiji	50-60	60-70	70-74	50-60	60-70	70-74	NA	NA	60-70	NA	60-70	70-71
Years	4.2	4.8	2.7	13.0	13.2	12.9	NA	NA	0.5	NA	12.5	20.5
Years	50-60	60-71	71-73	55-60	60-69	69-73	NA	NA	NA	50-60	60-70	NA
Nauru	7.5	2.8	9.1	9.8	11.7	4.5 g	NA	NA	NA	22.0	17.0	NA
Years	50-60	60-70	70-73	50-60	60-70	70-73	50-60	50-60	60-70	50-60	60-70	70-72
New Zealand	3.8	1.8	1.0	7.3	4.6	2.3	3.5	3.5	9.0	11.0	12.0	18.5
Years	65-70	65-70	70-74	NA	17.1	11.2	NA	NA	NA	NA	60-69	69-71
Papua & New Guinea	NA	-1.5	2.3	NA	17.1	11.2	NA	NA	NA	NA	22.0	18.0
Years	50-60	60-70	70-73	51-60	60-70	70-73	NA	NA	NA	NA	61-71	71-72
Tonga	3.8	1.5	-2.2	10.1	11.3	1.3	NA	NA	NA	NA	10.5	6.5
Years	50-60	60-70	70-73	50-60	61-70	70-73	50-60	50-60	60-70	51-60	60-70	70-72
Western Samoa	2.7	1.3	1.1	20.5	9.4	2.5	-3.5	-3.5	-1.5	3.5	13.0	7.5

CARIBBEAN											
Years	50-60	60-70	70-71	50-60	60-70	70-71	NA	NA	61-70	70-71	
Bahamas	1.8	4.0	10.4	27.4	12.6	5.0	NA	NA	30.0	1.5	
Years	51-60	60-70	70-72	51-60	60-70	70-71	51-60	51-60	60-70	70-72	
Barbados	3.0	1.5	-3.0	3.0	3.3	3.3	-1.0	8.5	18.0	16.0	
Years	50-60	60-70	70-71	50-60	60-70	70-71	NA	51-60	NA	NA	
Grenada	2.3	2.7	-1.8	4.9	9.2	24.2	NA	12.0	NA	NA	
Years	50-60	60-70	70-73	50-60	60-70	70-73	50-60	50-60	60-70	70-71	
Guyana	5.3	0.1	0.4	22.5	10.7	3.7	14.0	9.0	11.5	-3.5	
Years	50-60	60-70	70-72	50-60	60-70	70-72	50-60	50-60	60-69	69-72	
Jamaica	1.6	4.0	3.9	13.7	12.0 g	7.7 g	14.0	10.0	15.0	20.5	
Years	50-60	60-70	NA	9.1	7.9	NA	NA	51-60	60-70	NA	
Trinidad & Tobago	3.9	2.3						17.5	10.5		
OTHERS											
Years	50-60	60-70	70-73	50-60	60-70	70-71	50-60	50-60	60-70	70-71	
Canada	4.5	1.9	-11.9	7.6	6.4 g	57.2 g	6.0	13.5	16.5	9.0	
Years	50-60	60-70	70-73	50-60	60-70	70-73	50-60	60-70	60-70	70-72	
Malta	4.8	-3.1	-6.6 d	16.7	8.9	6.8	3.0	NA	12.5	4.5	
Years	50-60	60-70	70-72	50-60	60-70	70-72	50-60	60-70	61-70	70-71	
United Kingdom	0.6	1.9	1.2	5.0	0.9	3.0	2.5	NA	11.0	11.5	

T = not including Turkish schools
 G = general secondary education only
 S = includes general secondary and vocational and pre-primary
 P = includes primary and pre-primary
 d = beginning 1970 the duration of primary education was reduced from 9 to 6 years
 u = following the reorganization of the school system in 1966, junior secondary classes are now included in education at the first level
 P = Public education only
 L = Between 1965 and 1970 the duration of general secondary education was increased from 4 to 7 years
 NA = not available

Sources: "Statistical Yearbook", 1966, 1972, and 1974 UNESCO.
 "Education Statistics — Latest Year Available" January 1976 UNESCO.