

MODULE 3

Planning the financing of education

Overview

Modules 1 and 2 helped you to develop a comprehensive idea of how both the global environment and the local context conspire to constrain and influence the financing of education. It is now time to focus on the system itself to get a general idea of its operations, and its financial demands. In Section 1 of this module we are going to take a closer look at indicators or descriptors in use that can throw light on how the system may be operating. The question we are trying to answer is this: *How do planners know that they are financing their education system adequately?* The descriptors or indicators become useful tools in determining how the system is functioning at present levels of financing.

Having explored the indices that help us to determine if we are financing education adequately, we then go on to Section 2, which considers whether we have been raising the money in the most efficient and equitable ways. Various alternatives are examined which help to widen the frameworks governing how educational financing has been conceptualised and sourced in the past.

SECTION 1

Objectives

At the end of Section 1, the participants should be able to:

1. Analyse the reasons why governments take an interest in education.
2. Identify important indicators of flows, distributions and stocks in an education system.
3. Infer from these indicators information about the various levels of the education system.
4. Evaluate the strengths and weaknesses of such indicators.
5. Justify recommendations for adequate levels of financing to maintain and improve the education system.

A pertinent question at the start of this module, on which participants can reflect, is *why should governments take an interest in education at all?* In much of the Third World we have inherited colonial educational structures and, since independence, nationalist governments have continued to build upon this system and expand it. We have gone through a period in the 1960s and 1970s when human capital and modernisation theories sought to convince governments that education was the key to economic development. Today, that has been exposed as a myth. However, education continues to be a priority with governments. This module will provide some answers to the question posed above. You will also be interested in the sorts of answers given by personnel, especially from the Ministry of Education and that of Finance. Exploring this question can be worthwhile.

Activity 1

Why should governments take an interest in education? Research this issue in the following ways:

- 1. Write down your answers to the above question.*
- 2. Pose the question to personnel of the Ministries of Education and Finance.*
- 3. Peruse national policy papers such as plans of education or budget speeches.*

Organise the responses into categories. What are the implications inherent in your findings? Discuss your findings with those of other participants.

The actual reasons explaining government involvement in education may differ substantially in different parts of the world. However, once that interest is there, and that means money is invested in the system, governments need to know through various mechanisms how well they are doing. This is usually done through indicators of various sorts and it is to the utility of these indicators that much of this module is devoted.

The appropriations bill of national governments allocates funds to education using criteria which are based on an understanding of the international and local contexts of financing. Budgetary allocation within education itself is often organised in ways that take cognisance of policies to which governments have already given their approval, for example expansion of basic education, apparently without a holistic view of how the entire

system is performing. It is mandatory, especially in times of financial stringency, that planners in education and finance have detailed knowledge of the operations of the entire system to provide a basis for determining whether it is being optimally financed. Doing it solely the other way, i.e. allocating funds based on projects and reforms previously agreed upon, relies on a kind of blind faith that everything outside those sectors is functioning well. Indicators provide evidence and clues that tell what the situation is and how it is changing.

This activity is designed to allow participants to identify and infer educational and financing information from a wide array of indicators.

Activity 2

Below is a general list of the most common indicators that are presumed to throw light on the relationships, stocks, flows and distributions within the education system. Attempt to reorganise the list under five categories that you believe may be important in assessing the financing of education.

- *Students' examination performance*
- *Student-teacher ratios*
- *Repetition rates*
- *Rates of population growth*
- *Numbers of teachers leaving*
- *Migration trends*
- *Teacher stocks*
- *Enrolment ratios*
- *Teacher wage bill*
- *Illiteracy rates*
- *Enrolment in, and costs of, different curriculum areas*
- *Enrolment in different types of schools*
- *Numbers of dropouts at each level of schooling and type of school*
- *Structure of the national population by age and sex*
- *Student enrolment and performance by gender, ethnicity, religion, and geographic area*

One way of approaching this exercise is to reflect on what categories of information you would consider important to have in hand in making

judgements about the adequacy of how the system is being financed. Immediately, you realise that one must have a fairly precise idea of:

1. Numbers of students;
2. Numbers of teachers within the system;
3. How those numbers will change in the next few years;
4. Whether all groups are accessing education equally;
5. Whether invested resources are being utilised efficiently.

The reorganised list should look something like this (some indicators may overlap categories):

1. **Student Enrolment** – enrolment ratios, enrolment in different types of schools
2. **Teacher Supply** – teacher stocks, teacher wage bill, numbers of teachers leaving, student-teacher ratios
3. **Demographic factors** – structure of the national population by age and sex, rates of population growth, migration trends, student enrolment and performance by geographic area
4. **Equity** – student enrolment and performance by gender, ethnicity, religion, and geographic area; enrolment in different types of schools; illiteracy rates
5. **Efficiency considerations** – students' examination performance, repetition rates, numbers of dropouts at each level of schooling and type of school, enrolment in and costs of different curriculum areas, numbers of teachers leaving, enrolment in different types of schools, illiteracy rates.

Gross Enrolment Ratios are obtained by dividing the total number of students enrolled in a level or stage of education by the wider population of that age group corresponding to that level or stage. For example:

$$\frac{\text{Number enrolled in primary schools}}{\text{Number of children of primary school age}}$$

This indicates information on the numbers in each stage or level (for example, primary, secondary and tertiary) who are in school, as well as the non-schooling gap for those stages or levels. The spread of children in each level, graduates from each level and the approximate attrition taking place as

students progress throughout the system also becomes known. This indicator, because it assumes that persons enrolled in schools must be of primary school age (in many countries 5–11 years), may approach totals that exceed the number of children in the country of that age group. A refinement of this is the net enrolment rate calculated by dividing:

$$\frac{\text{Number of pupils enrolled only of primary school age}}{\text{Number of children of primary school age}}$$

In assessing the financing of the system, questions tend to centre around whether the enrolment ratios at primary, secondary and tertiary levels are acceptable given the resources of the country and its development plans and prospects. For example, Universal Primary Education (UPE) is a widespread goal for many developing countries and financing decisions may have to prioritise the primary level before considering expanding enrolments ratios on a similar scale in the secondary and tertiary sectors. To gauge whether the financing of the education system is adequate, comparisons are often made to countries of similar income and endowment, as well as to others considered to be more developed.

Box 1

Table 3.1. Gross Enrolment Ratios by Level of Education in Selected Countries in 1990

Country	Gross enrolment ratios %		
	Primary	Secondary	Tertiary
<i>Developing countries</i>			
Sub-Saharan Africa	66.7	17.5	1.9
Arab states	83.4	52.7	12.6
Latin America/Caribbean	109.9	57.6	18.7
Eastern Asia/Oceania	120.0	53.3	6.1
Southern Asia	88.4	38.4	8.9
<i>Developed countries</i>			
North America	102.0	98.9	70.4
Asia/Oceania	102.0	96.8	32.8
Europe/former USSR	102.0	93.1	27.3

NB The intake exceeds 100 per cent where enrolment data include children who are below or above primary school age and are repeating various grades.

Source: Reimers and Tiburcio, 1993, p.29

Enrolment in different types of schools, especially different types of secondary and tertiary institutions, has been an important indicator in the past, for manpower planning purposes. Manpower planning uses several techniques to match the output of schools over a period, for example the next ten years, with the number and kinds of employment opportunities that would arise in that time on the labour market. Similarly today, assessments of the financing of education focus on whether the heaviest financial outlay is in the kinds of education presently in demand by the labour market.

For example, the traditional concept of education is gradually changing to accommodate an understanding that a general education, that is one having a large component of literacy, numeracy, computer and communication skills, may be more useful in today's world. If it is found that large sums are still supporting a specialised technical-vocational programme in secondary schools, a legacy of the human capital paradigm, then the understanding is that the system is being inappropriately financed.

Teacher supply: Any discussion of teacher costs must include recurrent costs. These refer to all expenditure that is disbursed in the short term, i.e. over a budgetary year and include teacher salaries, as well as the maintenance and utility supplies and other services needed by the schools every day. Recurrent costs are often contrasted with capital expenditure which is the heavy financial outlay usually carded for building plant or purchasing expensive equipment and machinery.

Teacher stocks provide information on whether there are enough teachers to run the system. The planner must have an overall perspective of what the present teaching stock is like. For example, the proportion of older to younger teachers allows one to be able to forecast how many will leave through retirement and therefore how many, and in what subject areas, recruits will be necessary. This will help to avoid the problem of teacher shortages.

The teacher wage bill will also be accurately determined if the teacher stock is known. The financing of the education system must allow for an increase in the bill even though recruits have not entered. Teachers earn increased remuneration through seniority so that salaries and unit costs increase as the teaching population grows older. Keeping costs down may entail encouraging early retirement and maintaining a balanced ratio of older to younger teachers.

The numbers of teachers leaving the profession is a difficult indicator to forecast. In response to Structural Adjustment Policies in many developing

countries, teachers have had their wages cut and various strategies have been devised to encourage them to retire early. Some may stay on but it is questionable whether in such a climate they, or new recruits, are able to deliver quality instruction.

Box 2

The Degradation of the Teaching Environment

Cuts in the real level of teachers' incomes result in low morale in the profession and reduced motivation and effectiveness, with serious implications for school quality. In addition, teachers may be forced to take on second jobs or activities, often leading to increased absenteeism and to reduced time for preparing classes, correcting papers and being available for students. The erosion of income also leads to trained staff leaving the profession. Scientific, mathematical and technical subjects are particularly affected.

As a result of both lower wages and degradation of working conditions, the attraction of teaching as a career has been considerably reduced. UNESCO's *Statistical Yearbook 1991* indicates a declining proportion of students enrolled in teacher training at the second level of education. Between 1980 and 1989, enrolment in teacher training as a percentage of total enrolment declined from 7.2 to 6.6 per cent in Africa and from 4.1 to 3.2 per cent in Latin America.

An option used to cut back on teacher costs has been to increase the proportion of young, inexperienced and temporary teachers, with the effect of reducing the average salary paid. Using untrained teachers in countries where large numbers are already without qualification is unlikely to contribute to the quality of the system. In Costa Rica, for example, better educated teachers have been gradually replaced by aspirants, high school graduates without adequate training. At the secondary level, these aspirants represented 23.9 per cent of the teaching force in 1990, up from 9.7 per cent three years earlier.

Source: Adapted from Reimers and Tiburcio, 1993, pp. 45–46

Student-teacher ratios are calculated by dividing the total number of students in a school or type of school by the total number of teachers teaching them. Increasing this ratio reduces overall costs. If enrolments increase relative to teacher stock, then more students will be educated at the same cost. A few students can be admitted to a class over the normal

maximum, without any rise in costs. Planners bent on maximising costs, though, need to be aware of the threats to quality education in very large classes, such as upwards of 40 students. Financing the system adequately will therefore also involve decision making that seeks to minimise those threats – for example, expansion of enrolments may not necessarily involve increasing the student-teacher ratios in traditional classrooms.

Box 3

Secondary School Expansion

A more radical approach to achieving a major expansion in secondary education would be to increase the use of distance-education methods using a combination of written materials, radio broadcasts and correspondence techniques. A combination of self-study and radio broadcasts could be supplemented by supervised study in community centres, secondary schools, tertiary institutions and extramural centres.

In countries with low progression ratios to secondary education, distance education could be used to increase educational opportunities for those who leave school after three years of post-primary education. For the unemployed it could be organised on a full-time basis; for those who work, on a part-time basis. Governments may wish to encourage the establishment of private correspondence schools. Other options are the use of secondary schools (many of which close in the afternoons and evenings) and the strengthening of continuing education departments in tertiary colleges.

Source: World Bank, 1993, p. 104

Demographic Factors

The structure of the national population by age and sex constitutes basic data that any assessment of the financing of the education system must take into account. These statistics provide information on the size of the school age population in different age ranges. Dynamic factors can alter this structure so that the levels of enrolment in primary schools, for example, from one five-year period to another, may differ considerably. Hence, financing the system adequately in one plan period with 500 primary schools, may not necessarily mean that this remains so if birth rates decline.

Rates of population growth can keep planners abreast of how enrolment figures are likely to change. If birth rates decline, then five or six years from

that date, primary schools will have a reduced intake; twelve years from that date, junior secondary education will also suffer a similar fate. Building many schools to accommodate the school age population now may pose problems five years later, when expensive capital outlay remains under-utilised. A fall in enrolment does not necessarily mean that costs will fall, as the same number of teachers may continue to be employed and recurrent expenses in the form of electricity, water and building maintenance continue as before.

However, the more common problem in developing countries is the continuing high rates of population growth. School building is still far behind what is considered necessary for universal primary education. An assessment of whether the system is being adequately financed must consider not only those enrolled but also the extent of the shortfall in provision.

Migration trends call into question the heavy investment by governments in all levels of education. Emigration of highly educated manpower represents significant losses in terms of money invested in people and the potential benefits they could have brought to their country as a result of their advanced training.

Box 4

Education and Development – Emigration

A widespread response to high unemployment and low income levels in the Caribbean has been emigration. In recent decades, the proportion of the Caribbean population voluntarily emigrating each year has been higher than that of any of the regions of the world. While many migrants are very young, much of this emigration has been concentrated among the most highly trained segments of the population. In Jamaica, for example, between 1980 and 1986, the loss of skilled labour through emigration was equal to half the graduates produced by national training institutions over that period in the respective disciplines. A consequence of such high levels of emigration is lower social rates of return to investment in education and training. To a certain extent, local demand for education and training in the Caribbean is linked to anticipated labour market opportunities in North America. Hence, an important issue facing most Caribbean governments amid such high emigration is the appropriate mix of financing for human capital investments, especially at the post-secondary education level, given that individual returns on such investments often significantly exceed those accruing to the state.

Source: World Bank, 1993, p. xv

Student enrolment and performance by geographic area in developing countries show marked differences between urban and rural communities. A certain minimum guaranteed enrolment is necessary to justify the costs of building a secondary school, so urban areas tend to have better provision. The costs are higher than for primary schools because of the specialised curricula needing higher paid subject teachers and a variety of resources. Unit costs are also higher in rural areas where the teacher-pupil ratio may be lower than that in the urban environment.

Activity 3

Student performance in rural schools tends to be lower than that of students in towns. Consider the following scenarios in relation to what obtains in your own country:

- *A dearth of highly qualified secondary school teachers;*
- *A high percentage of student unpunctuality and irregularity;*
- *High opportunity costs;*
- *The curriculum in many rural areas offers agricultural courses, but there is low enrolment and a high failure rate.*

Make a case for adequate financing of rural education in your country and identify relevant organisations that may be of help.

Equity

Equity considers whether all students are being treated fairly in the system. Financing the education system adequately involves analysing the experiences of different social groups. Just as rural students may suffer inequities, so too might social groups that differ because of gender, religion, ethnicity or some type of handicap. In many developing countries females were admitted late into education and in some countries they are still excluded for various reasons. Yet it has been shown that the benefits that accrue from expanding female enrolments far outweigh the increased expense.

Box 5

Female Literacy and Development

Increasing national and international concern over the persistence of female illiteracy has been due in part to the steady accumulation of research on its many different implications for the processes of social change and economic development. Besides a focus on the vital role that women play in agriculture and rural development in many countries, attention has also focused on the implications of female illiteracy for population growth and health, and on the relationship between the mother's literacy and education of the child. In the latter connection, the idea of 'family literacy' has been gaining ground in some countries with the realisation that most children spend more time in their years up to adolescence with their family, and especially their mother, than with any other educational 'medium' including school, and that if children have difficulty in reading it is often because their mothers do too. It has been said that the family is 'the world's smallest school'.

Source: UNESCO, 1993, p. 28

Many developing countries are ethnically diverse and the planner must be especially vigilant in ensuring that the education system is not inadvertently favouring one social group over another. This is a complex scenario, particularly when international standards and indicators tend to discriminate among the various sectors of a population. One case is the definition of literacy.

Box 6

Equity and Linguistic Diversity

Since the celebration of International Literacy Year (1990) and the holding of the World Conference on Education for All (Jomtien, 1990) there has been a greater awareness of the whole complex of cultural, social and economic factors associated with the persistence of illiteracy in both developed and developing countries. The question of language is becoming recognised as central. National literacy goals cannot be defined in a meaningful way without explicit reference to the language (or languages) in which the literacy is to be acquired.

International indicators of linguistic diversity have not yet been developed; not all national censuses collect the basic information. The two regions – sub-Saharan Africa and Southern Asia – which have the highest concentrations of illiteracy both have very complex language situations, although in every region there are countries where the population needs to acquire an understanding of more than one language in order to cope with the demands of daily life. Indeed, it now appears that the whole question of illiteracy at the global level is entangled with that of learning a second language since the majority of countries in the world are not monolingual, and a majority of the world's population lives in a relatively small number of very populous multilingual countries where the opportunities to become literate in the mother language are unevenly distributed among the different language groups.

It is estimated that there are over 6,000 different languages in the world, but many of them – rare flowers of human thought – are dying out. Only 12 are estimated to have around 100 million or more speakers. . . . More than half the world's languages are concentrated in only 7 countries – Papua New Guinea (850), Indonesia (670), Nigeria (410), India (380), Cameroon (270), Australia (250) and Mexico (240) . . . Another 15 countries each harbour more than 100 different languages (Zaire, Brazil, Philippines, former USSR, Malaysia, United States of America, China, Sudan, Vanuatu, Central African Republic, Myanmar and Nepal). Bilingualism is common in a majority of these countries, and for significant parts of the population in some of them literacy is only feasible in a second language because the mother language has no established orthography or written material. The gradual spread of literacy throughout the South, therefore, has required a degree of cultural flexibility and tolerance that statistics of literacy do not measure.

Source: UNESCO, 1993, pp.25–27

Efficiency considerations

All the indicators and categories listed above have an efficiency component. Efficiency describes a relationship between the costs of inputs and outputs (the desired goals and outcomes of the system). A project is efficient if it produces benefits or gains enough to justify the capital outlay. There are two concepts which need to be examined in relation to efficiency and education.

Internal efficiency of education – this is a measure of how a given investment in education improves the quality of an educational outcome. Any investment, be it remedial, teacher training or curriculum reform, should result in quality learning or improved outputs from the system. High repetition and drop out rates suggest wastage and a low internal efficiency of education.

Box 7

Hypothetical Example: Literacy Programme Costs vs Benefits

We wish to ascertain the benefits and costs associated with three strategies for improving adult literacy:

1. Standard classroom approach with 25–30 students per teacher for 2-hour classes, three times a week;
2. Self-instruction with technological aids, for example, cassettes, programme texts and standard classes once a week;
3. Three standard classes per week as well as one remedial session with no more than 5 students.

The following table shows the hypothetical benefits in monetary terms that should accrue for each of the groups.

Strategy	Costs	Benefits	C/B
1.	\$200,000	\$250,000	0.80
2.	\$150,000	\$125,000	1.20
3.	\$350,000	\$420,000	0.83

In order to consider any particular programme, the benefits must at least be equal to the costs. Of the three, the self-instruction strategy has a cost-benefit greater than unity, meaning that costs exceed benefits.

Source: Adapted from Levin, 1983, pp.22–25

External efficiency of education – this is a measure of how investments in the education of an individual can result in increased income or earnings to the individual.

Cost benefit and cost effectiveness analysis are ways of verifying efficiency. In cost benefit analysis an attempt is made to evaluate various alternatives or innovations by comparing their costs and benefits, measured in monetary terms.

Activity 4

- *Attempt to identify the costs associated with each strategy. Costs include all the resources that are used to carry out an activity, even if they are difficult to quantify. The third strategy is the most costly. Suggest why this might be so.*
- *Consider how we may be able to assess benefit, i.e. literacy gains in this case, so that we can convert benefits to monetary gains, to compare costs. How may pecuniary benefits accrue to an individual from improved literacy?*

Cost effectiveness, on the other hand, has certain outcomes or goals in mind, and will evaluate different alternatives along two measures – their costs and their effects in producing the targeted outcomes or goals. The innovation to be adopted would be the one that can produce the desired outcomes at a competitive price.

Box 8

Table 3.2. Hypothetical Example: Remedial Maths Programme: Costs vs Effectiveness

The table below summarises costs and effectiveness data for four remedial maths programmes that are being considered. To obtain data on effectiveness there must be a control group where no treatment is being given so as to compare achievement (or effectiveness) amongst the different groups.

Method	Cost per student	Effectiveness (test score)	C/E
1. Small groups working with a special tutor	\$300	20	\$15
2. IPI – individually programmed instruction in which the student works at his own pace in a special resource room with individualised materials and co-ordinator	\$100	4	\$25
3. CAI – computer aided instruction, includes a 10-minute session of drill and practice in arithmetic concepts, problems and operations	\$150	15	\$10
4. Peer tutoring in which older students spend 30 minutes a day tutoring those needing remediation	\$50	10	\$5

Source: Adapted from Levin, 1983, pp.19–21

Activity 5

- Suggest the items in each method that contribute to the costs shown.
- Which approach is the most effective as determined by test scores?
- Which approach is most cost-effective?
- What is the important point here for those who have to finance the system?
- For a context that you describe, explain which of these methods or combination of methods you would choose.
- It is said of this method that it does not allow the planner to make an overall determination of whether a programme is worthwhile in the sense that its benefits exceed its costs. What does this mean?

Both cost benefit and cost effectiveness analyses are valuable tools for those concerned with financing the education system as efficiently as possible. Boxes 9 and 10 provide evidence relevant to assessments of the

internal efficiency of the education system. Activities 6,7, and 8 examine various aspects of the internal efficiency of education.

Box 9

Table 3.3. Internal Efficiency at the First Level of Education in Selected Countries (1990)

Country	Percentage of repeaters	Percentage of the 1989 cohort reaching			Coefficient of efficiency
		Grade 2	Grade 4	Final grade	
Burundi	22	89	77	77	0.70
Lesotho	22	85	73	50	0.54
Haiti	13	80	55	39	0.53
Trinidad & Tobago	3	100	89	89	0.92
India	4	92	68	62	0.74
Denmark	0	99	99	99	1.00
Switzerland	2	100	100	100	1.00
Tonga	4	100	93	92	0.90
New Zealand	3	99	97	97	0.96

Source: UNESCO, 1993, pp.132-35

Activity 6

- The table is actually charting two indicators contributing to internal efficiency in education.
What are they?
What implications are there for the financing of education?
- Which countries are maximally efficient at the primary level of education?
What are the factors that probably contribute to this?
- Consider your own country –
 - (a) What is the coefficient of efficiency where primary education is concerned?
 - (b) What are the likely factors responsible for this level of efficiency?
 - (c) Are there equity considerations in the way the two indicators seem to be distributed among different social groups and different types of schools?

Activity 7

Enrolment in and costs of different curriculum areas

These indicators allow the planner to fine-tune the financing of the system.

- *Collect statistical data for your country for the last 5 years on enrolments and relative costs of different curricular areas at secondary school.*
- *Examine this data to determine if there are trends that have resulted in inefficiencies, i.e. curricula which may be too costly given enrolments or other factors.*
- *Consider whether there may be equity considerations in how enrolments are distributed among the different curriculum areas at secondary level.*
- *Justify recommendations for adequate levels of financing to maintain and improve the education system.*

Box 10

Table 3.4. Proportion of Caribbean Secondary Students Gaining 5+ Passes in CXC* (1990)

Territory	Nos gaining 5+ passes	Total entry	Percentage gaining 5+ passes by country
Anguilla	5	90	5.6
Antigua/Barbuda	59	728	8.1
Barbados	386	5,184	7.4
Belize	49	1,482	3.3
British Virgin Is.	4	168	2.4
Dominica	56	780	7.2
Grenada	46	1,401	3.3
Guyana	182	6,210	2.9
Jamaica	1,228	22,229	5.5
Montserrat	16	152	10.5
St Kitts-Nevis	53	548	9.7
St Lucia	189	1,607	11.8
St Vincent	81	1,423	5.7
Trinidad & Tobago	2,555	27,694	9.2
Turks & Caicos	3	146	2.1
Total	4,912	69,842	7.0

*Caribbean Examinations Council

Source: World Bank, 1993, p.251

Activity 8

- *What is the main point being made about the efficiency of education? Suggest the factors that may be responsible for this kind of outcome.*
- *If you were a member of a team responsible for the financing of the education system in your country, what are some of the alternatives and decisions that you may have to consider in trying to correct inefficiencies like this and at the same time maintain equity and quality?*

Summary

To determine whether the education system is being adequately financed requires an in-depth knowledge of both the economics of education, as well as the factors that result in good pedagogy. Indicators such as student enrolment, teacher supply, demographic factors, equity and efficiency all represent areas of concern where there is a continual struggle to balance economies with quality teaching and learning. These indicators provide a wide range of information on which planners can exercise judgements about which aspects are being adequately financed and which are not. If quality education cannot be delivered at present levels of financing, then we must examine how we actually raise the funds to see if we can increase financing and quality at the same time.

SECTION 2

Overview

Modules 1 and 2, as well as Section 1 of this module, consistently portray education as being in a beleaguered position. It appears to be hemmed in by severe financial constraints, especially in regard to structural adjustment policies and very high recurrent costs. At the same time, the populations in developing countries continue to make heavy social demands on the education system – to expand provision, to increase access, to improve quality and to promote efficiency.

Even amidst the failed experiments, such as those in specialised technical-vocational training, the swelling of the ranks of the educated unemployed, and high wastage and repetition rates, both governments and private citizens remain convinced that education is a valuable and necessary asset in

the improvement of the quality of life both nationally and personally. Given these factors, the question that policy makers in education and finance should be addressing is – **are we really raising the money in the best way?** In other words, if we can rethink how we source and allocate funding for the system, it is possible that we can come up with ways that may promote cost recovery and cost sharing and still maintain equity, efficiency and quality. Section 2 of this chapter closely examines the case for diversification in the financing of different levels of education.

Objectives

At the end of Section 2, the participants should be able to:

1. Distinguish between the social and private rates of return to education;
2. Identify methods to distribute the costs of education more equitably;
3. Justify recommendations of cost sharing in educational investments;
4. Evaluate the possibilities and limitations of educational financing alternatives.

The case for sharing the burdens of educational costs rests on empirical evidence that the benefits that accrue from education are greater for the private citizen than for the state, which usually finances the education in the first place.

Box 11

Private and Social Rates of Return to Education

The private rate of return is consistently higher than the social rate of return. The private returns to primary education are by and large well in excess of 15 per cent, and may be as high as 50 per cent. In the case of secondary and higher education, estimates of private rates of return are also high, usually well in excess of 10 to 12 per cent, and often as high as 30 to 40 per cent.

Thus, for the individual student or family, education is usually a highly profitable personal investment. The expected benefits more than compensate for the burden of high costs, including earnings foregone. The fact that the social rate of return is always lower than the private rate of return indicates that education is highly subsidised and that the extra taxes paid by the educated do not compensate for this subsidy.

Source: Psacharopoulos and Woodhall, 1985, p. 117

Activity 9

Which of the following indicators refer to (a) social rates of return to education and (b) private rates of return to education:

- increased labour productivity;
- reduced birth rate;
- environmentally sustainable economic activities;
- increased earnings?

Investigate at least one method by which social and private rates of return are calculated.

The private rates of return to secondary and tertiary education are less than that to primary education. Suggest reasons why this does not discourage enrolments in secondary and tertiary education.

Since the private rates of return are much higher than the social rate of return, what alternatives can you suggest to distribute the burden of costs on those who benefit the most?

Developing countries have begun to experiment with different methods of cost recovery and cost sharing, but to date much of this effort has been in tertiary education.

- Suggest reasons why the state has been more ready to cut back its direct involvement in the financing of tertiary education than in that of primary or secondary education?
- Of the 6 potential sources of revenue listed below, which are the ones more likely to be targeted to contribute to tertiary financing, or to increase their contribution: parents, students, taxpayers, tertiary educational institutions, business partnerships, community based organisations?
- Can you suggest any other form of income generation that will help to share costs in tertiary education?

Box 12 lists some of the more widespread innovations being undertaken at the tertiary level as cost recovery and financial diversification measures in both developed and developing countries.

Box 12

Examples of Financial Diversification

- an increase in the share of costs borne by students and their families
- increased reliance on loans as a form of student support, in conjunction with or instead of grants
- fees for short courses of 'continuing' or 'recurrent' education, usually at full cost
- employer sponsorship of students or trainees
- endowments of institutions, staff or halls of residence by industry, commerce or philanthropists
- research grants and contract from research councils, government departments and industry and commerce
- consultancy and sale of educational and research services
- sale of other goods and services, for example revenues from conferences and vacation lettings of student accommodation, hiring of equipment and laboratories, science, parks etc.
- gifts and endowments by alumni
- the establishment and growth of private institutions of higher education.

Source: Adapted from Woodhall, 1994, pp. 4–5

Activity 10

1. *Why have governments been so directly involved in bearing the costs of tertiary education in developing countries in the past?*
2. *How may questions of equity, efficiency and quality be affected by a greater cost sharing with the private sector?*
3. *Examine any institution of higher learning in your country to determine what cost recovery or financial diversification alternatives are being considered or have been put in place?*
4. *Loans are deferred payments that are advantageous to the lower income student. In the past, governments have not been able to recover much of this subsidy. What factors have prevented the smooth working of this scheme? How can it be re-organised and be made more efficient?*
5. *Reforms in education are described as competitive, finance or equity driven. How would you ensure that finance driven reforms continue to uphold equity?*

The diversification of educational financing is much less apparent at the secondary level, and even less so at the primary level. The growth of private secondary schools, especially those run by religious boards, the links forged with community-based organisations and parent-teacher efforts at fundraising are some of the ways in which financing of secondary education is being gradually diversified.

One of the most comprehensive measures to be suggested is a change in the educational management of secondary schools, i.e. the policy option of decentralisation. In the interests of efficiency it is felt that decision-making, especially about use of resources, should be located closer to schools.

Box 13

Secondary Schools and Decentralisation

While there are merits to the option of decentralising educational services, it is important to recognise that the options cover a range of shades from black to white. The centralist tradition includes the education systems of the Prussian state, reflected in the current German system, France and Japan. The two best examples of the decentralised tradition are the education systems of the United Kingdom and the United States.

Recent reviews of decentralisation policies argue for the need to differentiate between macro and micro levels of analysis of decentralisation: 'confusion between these two levels is what accounts for the irony of the two most decentralised educational prototypes, the US and the UK, advancing on the one hand towards greater centralisation of their systems with a renewed emphasis on national standards, a national curriculum and national testing, in the name of efficiency, whilst on the other hand experiencing strong decentralising and privatising pressures, namely in the choice movement and its offshoots. There is a lesson for the Third World in the difference between the two levels and the requirements of efficiency'. Cummings and Riddell, 1992, p. 45

Source: Reimers and Tiburcio, 1993, pp. 63–34.

Activity 12

1. What is the 'choice' movement? How is it related to diversification of educational financing?
2. What implications are there for equity in a decentralised system?
3. If there is a role for the Ministry of Education in decentralisation, what aspects of governance do you believe can be successfully decentralised?
4. What roles do you see teachers, principals and school supervisors playing in a decentralised system?
5. The central focus in the decentralisation of schools is to improve efficiency through school autonomy. What implications are there for the diversification of educational financing?

Primary education, on the other hand, has been least affected by debates and reforms in the public financing of education.

Activity 13

- Given that in many developing countries UPE has still not been achieved, why is there a reluctance to shift the financing of the system to the private sector?
- Investigate the nature of provision and access to Early Childhood Care and Education in your country. How does it compare with primary education? How is early childhood education financed? Can you account for the differences between the financing of early childhood and primary education?

Summary

In Section 1, we examined the performance of the education system through indicators or descriptors which identified important information about flows, distributions and stocks in the system. In turn, these gave clues about equity and efficiency in education. If the latter are two primary goals of the education system, then the financing of the system must be organised to support those goals. Hence, to the policy makers in education and finance, indicators are vital in giving an overall picture of how the system is working. In times of financial stringency it is especially important that policy makers and planners are vigilant in ensuring that the system is being financed adequately and appropriately.

In Section 2 the issue of the diversification of educational financing was raised. The continuing high social demand for education within a context of structural adjustment has forced governments to admit their limitations in financing primary, secondary and tertiary education solely from public funds. There is now a move underway to ensure that those who benefit the most from education, especially tertiary education, are made to pay more of its costs. In addition, institutions of higher learning are exploring many avenues to earn additional funding. While such innovations are slow to make an appearance in secondary and primary education, it is inevitable that private financing will make a greater contribution to these levels of the system before long. The question always remains whether these changes in the financing of education will result in greater chances of equity, efficiency and quality in education.

Activity 14

Wrap-up: discussion and extended reflection

Now that you have completed the module:

1. *Attempt to draw up a list of the pros and cons of cost recovery measures;*
2. *Examine and comment on the issues inherent in the extract in Box 14.*

Box 14

Equity and Educational Financing – Building National Commitment to Equity

Many developing countries must strengthen their national commitment to distributing central government funds through a system that explicitly favours schools in disadvantaged communities. Many countries allocate national funds for primary schools equally on a per capita basis, without taking into account differences in community needs and resources. The systems in other countries demonstrate perverse biases. For example, in some countries the allocations per student are lower in rural areas, particularly in poor regions, than in urban areas. Even within cities some districts (such as slums) are grossly disadvantaged.

The national government obviously plays a central role in reducing educational inequality. In some countries that are taking greater advantage of local financing, it should help keep inequality from worsening, and in countries with highly decentralised educational

systems, it should encourage equity. Solving the equity problem requires reducing or eliminating the advantage associated with a higher tax base. In effect, this means redistributing tax money in one form or another from high- to low- income communities. That task, which is not an easy one, requires consensus building and can only be undertaken by the national government. Consequently, the national government must commit itself to developing and implementing an adequate system of resource allocation that is consistent with the national definition of equity. A vigorous campaign to mobilise local resources means that the central government must play a stronger role in redistributing the resources that finance education.

Source: Lockheed, M and Verspoor, A, 1991, p. 202

Suggested reading

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