

guilds to take part as major partners in determining apprenticeable occupations, developing skills standards, conducting trade tests and issuing certificates;

(j) Determining the duration of an indenture based on national skills standards and considering the time needed to develop suitable attitudes, discipline and skill to become a proficient skilled worker; and

(k) Strengthening apprenticeship training in occupations for which training cannot be provided by training institutions.

The apprenticeship program will be largely controlled by the workers and the employers, with the Government limiting its intervention to the setting of guidelines and standards.

Apprenticeship will be financed mainly from a levy on payroll which will be constituted into a Skills Development Fund. It will be managed by employers and workers under the guidance of TESDA.

*Third, make the users bear the major part of the cost of occupational and skills training.*

Under an agreement between a school/training center and industry, a firm may take part in apprenticeship and bear the major cost of training. The voluntary participation of industries should be considered in the light of the efficiency principle that some skills development activities are better done by TVET institutions and some by industries.

*Fourth, create a national agency that will plan, set standards, coordinate, monitor and allocate resources for technical education and skills development in both the public and private sectors.*

Better planning and policymaking by TVET should remove the overlapping of responsibilities in skills development activities. The most cost-effective methods of TVET have to be determined; and cost-sharing schemes between industry and Government have to be designed. To ensure that the skills that will be produced by schools/training centers meet industry needs, trade groups must set standards for industry.

The structural change that the above activities imply is the

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integration of the administration of the TVET system. The NMYC, the Bureau of Technical and Vocational Education of the DECS and the Apprenticeship Office of the Department of Labor and Employment have to be fused into a new body referred to earlier as the Technical Education and Skills Development Authority.

The TESDA shall also coordinate and monitor community colleges that will offer one- or two-year courses in occupations needed in the communities and polytechnics engaged in technician education. To enable the young from low-income families to use these programs, the Government will grant full subsidies and scholarships.

*Fifth, base the technical education and skills development plan on a national employment plan.*

An Employment Planning Board will be created. This body will prepare the employment chapter of the Philippine Development Plan, which will serve as, among others, the guide to education and manpower planning.

## 5

# Teachers: At the Heart of the Problem

**T**HE TEACHER is the single most important factor in education. Her or his far-reaching influence as an agent of constructive change in society is beyond question. Through the years, however, the status, training, pay and welfare of teachers have declined, with serious consequences on the quality of education. Public dissatisfaction with education has become chronic and teachers have been at the center of the debates. Yet, while teachers are always the object of criticism, they are looked at as the best hope for reform.

There are 522,722 teachers in public and private schools. They make up 38 percent of the total number of professional, technical and related workers and form one of the largest occupational groups in the country. The Government is the biggest employer of teachers. Any policy or program therefore it adopts for teachers will bear on the educational system and the nation at large.

### **The teacher is poorly trained**

Many teachers at all levels don't have the minimum qualifications for teaching.

The proportion of high school teachers of science and mathematics, for example, that do not have even the minimal preparation for teaching the subject ranges from 54.6 percent to 5 percent. Only 3 percent of the technical-vocational teachers have the required industrial training or experience. In higher education, only 36 percent have credentials beyond the baccalaureate, while 10 percent of the graduate faculty in the social

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sciences do not even have M.A. units.

This finding is reinforced by the results of other tests recently given to prospective teachers, and those already on the job. In the 1990 Philippine Board Examination for Teachers, only 10.6 percent of the examinees passed, with the highest scores obtained mostly by noneducation graduates. In the 1991 DOST tests given to both teachers and students in the first year of the Secondary Education Development Program, the total mean percentage score (54.08) of the first-year high school teacher was only 8.79 points higher than those of the students (45.29). The teachers had even lower scores in Filipino (56.88) than the students!

This deplorable performance can be traced to poor teacher training and the low quality of students enrolled in teacher training.

Teaching, because it is perceived as a poorly esteemed profession, doesn't attract or hold the best. Government has done little to change this perception. It has in fact allowed the establishment or continued operation of substandard teacher education programs. It has also failed to recruit and support the best among high school graduates to become teachers.

The Government's indifference to teachers is reflected in the numerous nonteaching assignments; low salaries; late or irregular payments or nonpayment of other benefits; meager opportunities for professional development; weak system of classroom supervision; lack of a well-defined career path and a clear reward system; and lack of support to organized efforts to improve the teachers' condition.

#### **What reforms do we want?**

The following recommendations aim to raise the status and self-esteem of teachers and uphold the dignity of their profession.

*First, professionalize teachers and teaching.*

Adopt a periodic licensure test to qualify a graduate to

become a teacher in both public and private schools. This test shall be given by a professional board under the Professional Regulatory Commission. The first test is for licensing; later examinations will be for promotion.

A Code of Ethics for and by teachers to make the teaching profession self-regulating and self-governing should be adopted and enforced with the participation of teachers' organizations.

The required minimum qualifications, including computer literacy, for teachers in elementary schools and high schools and for trainers should be enforced. The minimum qualification of a master's degree or its equivalent in the field of specialization for the faculty in colleges and universities should be strictly enforced.

*Second, create well-defined career service paths, for promotion and career planning, for teachers and administrators.*

Two career paths are open to teachers: the designated teacher career path with promotional apex reached at Master Teacher level VII, and the administrator's path beginning at Assistant Principal I.

A career path for teachers will define the promotional ladder and the corresponding pay for teachers. To encourage teachers to stay on, the salary for the Master Teacher ranks should be competitive with those in the administrator's career path. Thus, a Master Teacher Level VII would get the same pay as a Division Superintendent I.

Policy guidelines and administrative procedures will be delineated to carry out the career path choice made by a teacher.

Teachers appointed to administrative positions must pass a career administrator's test and go through a period of training. The career path for administrators shall begin at the school administration level, with the rank of Assistant Principal, which has both administrative and teaching functions. A career development scheme at the tertiary level should be adopted to minimize the fast turnover of good teachers, foster research

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work and encourage continuous professional growth.

A reward system whereby merit and performance can be given equivalence should be carried out. There will be a transition period to give the teachers a chance to take the licensure test.

Increase the minimum basic salary of public-school teachers from Grade Level 10 (P3,102) to Grade Level 17 (P5,201), and the monthly salary of private-school teacher to at least 25 percent higher than the minimum wage.

All teachers should pass the professional board examination to qualify as Master Teachers. Failure to do so won't qualify them for promotion to Master Teachers as defined by the career service system.

*Third, strengthen preservice teacher education.*

Set up, develop and strengthen Centers of Excellence for Teacher Education in every region. Teacher programs should be accredited.

Higher admission requirements, which include aptitude and motivation, for preservice education programs should be adopted. Provide generous scholarships and grants for those in the top 25 percent of applicants for admission.

Strengthen the curriculum for elementary and high school teachers with subjects that will make them competent in their field, creative and resourceful in the use of instructional materials, alert and adaptive to new challenges and trends.

Undertake periodic review and updating of preservice curricula in light of current changes and career needs such as for more qualified science, mathematics, engineering and technician teachers.

Teacher Centers should be set up across the country to strengthen the science and mathematics content of the teacher education courses and serve as in-service training centers.

The program on science and engineering manpower of the DOST should be supported as well as the DOST program to train more M.S. and Ph.D. holders in science and engineering for the

tertiary level.

*Fourth, improve and expand in-service training programs for both public- and private-school teachers.*

A periodic assessment of training needs should be done. Speed up the development of training materials and the use of research outputs and local resources in training programs, with emphasis on content.

A subsidy for the in-service training of teachers in private schools should be provided. Amend R.A. 6728 (College Faculty Development Fund) to make the conditions more realistic.

Strengthen supervision through competent supervisors who will assist teachers in improving school performance.

*Fifth, improve the teacher's welfare and benefits.*

Carry out the relevant provisions of the Education Act of 1982 and the Magna Carta for Public-School Teachers to ensure better working conditions for public- and private-school teachers, where applicable.

These provisions include:

a. Participation of teacher organizations in matters of policy to ensure that they have a voice in the regulation and control of the profession;

b. Protection of the teachers' right to associate freely and bargain collectively, in accordance with the pertinent ILO Conventions that the Philippines had ratified, and R. A. 4670, or the Magna Carta for Public-School Teachers;

c. Free legal services in case of administrative and criminal charges for actions committed directly in the lawful discharge of his or her duties;

d. Safeguards in the form of protection, insurance and hazard pay;

e. Limitation of nonteaching activities to those that require the training, dedication and commitment of teachers such as election duties, environmental or ecological activities, nutrition and health projects, provided these are voluntary and reasonable;

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f. Provision of enough instructional supplies, equipment and facilities so that the quality of their performance doesn't suffer.

g. Comprehensive medical and dental care;

h. Requirement for the Philippine Public School Teachers Association (PPSTA) to improve its financial management to assure payments of teacher benefits. For the protection and security of teacher-members, the actuarial stability of PPSTA should be reviewed to make certain that it is capable of covering payments of benefits. PPSTA should be controlled by the teachers themselves.

*Sixth, encourage teacher organizations. They will look after teacher welfare and conditions of employment, and will encourage professional growth.*

They serve as venues for participation in educational policymaking, the planning of in-service training programs, performance evaluation and rewards, and membership in the grievance machinery at all levels.



## 6

# Less Is More: The Question of Higher Education

**H**IGHER EDUCATION in the Philippines is characterized by an unusually large college population, bigger than most developed countries and comparable to that in the United States. This college population is, however, concentrated in a few courses: business and commerce, engineering, and teacher education. Few students enroll in science and in technician courses.

About 85 percent of college education is in private schools. This can be a strength and is a large saving for the Government, but it is made possible by low tuition whose downside is poor quality owing to low teacher salaries and poor facilities.

Graduate education is concentrated in teacher education; there are few graduate programs in science and engineering. The completion rate in graduate programs is very low.

Higher education may thus be characterized by *a*) large enrollments; *b*) imbalanced distribution; *c*) underinvestment and poor quality; *d*) lack of fit between programs and graduates on the one hand and employment and the needs of society on the other hand; and *e*) limited and underdeveloped graduate education.

*Large enrollments.* The University Belt in Manila indicates the large college population in the nation. (See Table 4.) We have 1,755 institutions of higher learning, the highest gross enrollment ratio among ASEAN countries, estimated at 38 percent in 1985 (compared with Indonesia's 6.5 percent, Malaysia's 6 percent, Singapore's 11.8 percent and Thailand's 19.6 percent. In 1989-90, tertiary enrollment was 1,225,315. (See Table 5.)

### *Less Is More: The Question of Higher Education*

*Imbalances.* Almost 68 percent (67.55 percent) of college enrollment is concentrated on only three courses: Business and Commerce (29.20 percent), Engineering (20.31 percent) and Teacher Education (18.04 percent). (See Table 6.) Few students enroll in mathematics and science and in postsecondary technical-vocational courses. Moreover, tertiary institutions are concentrated in urban centers.

*Poor quality.* On the average, only 21 percent of accounting graduates pass the CPA exams and less than 50 percent (46.02 percent) pass the engineering boards. (See Table 7.) In the Professional Board Examination for Teachers, the passing rate for several years was about 25 percent, but last year it dropped to 10.60 percent. Of the examinees, 77.5 percent were taking it for the second or third time.

*Lack of fit.* The general result of the large numbers, especially in the popular courses, and the poor quality is a mismatch between college education and employment. Many accounting and commerce graduates may work as bank tellers or sales clerks, engineers as technicians or sales representatives. Many teachers are handling subjects for which they have no preparation and many education graduates join the overseas labor market. At the same time, the country lacks scientists, higher-level engineers and technicians. This mismatch and the resulting unemployment or underemployment or brain drain represent heavy losses in the investments of individuals and families and Government in higher education.

*Limited and underdeveloped graduate programs.* Seventy-two percent of graduate education is concentrated on programs in Teacher Training and Education Science (42 percent) and the general M.A. in Arts and Sciences (30 percent). Graduate training in specialized fields of science, engineering and social science is very limited. (See Table 8.) A major reason is lack of funding. Few fellowships are available to allow graduate students to study full time. Research is hampered by lack of qualified teachers, funding, developed research centers and research

teams.

### **What are the needed reforms?**

The large numbers in higher education in the Philippines are its main strength. This means a large pool of young trainable people for the rapidly growing demands of modern society and business and industry. But this strength can be harnessed only if we have a better fit between higher education and development, have a better balance between different courses, increased investment and improved quality, and strengthened graduate education in specialized fields. We propose the following:

*First, create a better fit between higher education and employment by a clearer classification of institutions of higher education and their roles in preparing graduates for society and employment.*

*a. Community colleges.* These should offer courses that are occupation-oriented. It is expected that they will have good linkages with business and industry in their localities. These links will enable them to respond to local employment needs. They may also offer junior college courses for high school graduates who need more preparation before going to a four-year college or university.

*b. Universities and four-year colleges.* These schools will offer academic and higher-level professional degrees. Universities will have a wider range of programs and emphasize graduate studies, training of higher-level professionals and research.

*c. Specialized colleges.* These will offer undergraduate or graduate degrees in limited areas, e.g. teacher education, agriculture or business.

Technical and vocational education should be strengthened, and *affirmative action* policies should shift postsecondary students to these areas.

*Second, reduce the mismatch between graduates and jobs by involving leaders in business and industry in higher education.*

The clearer classification of tertiary institutions will help

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establish links with business and industry. These links will help determine oversubscribed courses and set priorities on scholarships and other incentives. Scholarships could then be given to undersubscribed courses, such as science and technician, and measures to reduce enrollment in oversubscribed courses.

*Third, carry out a selective admissions policy.*

In line with academic freedom and autonomy guaranteed by the 1987 Constitution to institutions of higher learning, colleges and universities are responsible for their own admission tests. Policies should be adopted to encourage these institutions to give admission tests suitable for them and their programs. These tests should be complemented with scholarships for poor deserving students.

*Fourth, provide incentives for students to pursue scientific, engineering and technician careers.*

Science and technology are rapidly changing the world around us, and our ability to provide jobs and a better quality of life for our people depends on our mastery of them. We have lagged behind our ASEAN neighbors and we must work very hard to catch up. Scholarships and other incentives are needed to create the needed pool of human resources in these crucial fields.

*Fifth, improve the quality of teachers through high salaries and a career path and through policies and programs to strengthen their academic qualifications.*

The teacher remains at the heart of education. Programs, such as the Career Scientific System, should be expanded to improve career paths for all teachers. A master's degree in the appropriate discipline should remain the minimum academic standard for college teachers, and faculty development programs should be strengthened to achieve it. For graduate programs, more faculty members with Ph.D.'s in their disciplines should be maintained. In certain professional disciplines, such as accounting and engineering, a system of equivalences to the master's degree should be set.

*Sixth, encourage and strengthen voluntary accreditation.*

To date only 15.54 percent of private tertiary institutions have accredited programs. (See Table 9.) We recommend a system of regional or sectoral accreditation of specific programs and disciplines with the cooperation of corresponding professional associations and experts. A national coordinating body for accreditation should be set up to coordinate, encourage and strengthen the professional accreditation agencies/bodies.

This national coordinating body shall *a)* make a periodic review of the policies and curricula of institutions of higher learning; *b)* publish the accreditation results of the professional and accrediting agencies; *c)* maintain a directory of institutions with accredited degree programs.

*Seventh, set up and support national and regional centers of excellence.*

These will be colleges and universities that have a tradition of excellence in teacher education, agriculture, engineering, medical and health sciences, social and administrative sciences. They should be strengthened so we can catch up with our ASEAN neighbors and so that they can become a resource to strengthen the other schools in their localities. These national and regional centers should also become centers of graduate education and research in their fields of strength.

*Eighth, strengthen and improve graduate education and research in the major disciplines.*

The quality of graduate education depends strongly on the strengthening of the qualifications of faculty and of research. (See Figure 8.) A large proportion of the faculty teaching graduate courses should have Ph.D.'s in their disciplines and be active in research. The national and regional centers of excellence should be helped so that graduate students can complete their programs in reasonable time (two or three years for the M.A./M.S. and four or five years for the Ph.D.). This would result in greater research productivity.

*Ninth, create a Commission on Higher Education that shall be*

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*responsible for both public and private higher education.*

This Commission will draw up policies and plans and recommend programs on higher education, including financial aid to public and private institutions. It will set academic standards, enhance institutional capabilities, link higher learning to national development needs and help transform institutions of higher learning into a reliable national resource. Its proposed organization is shown in Figure 9.

*Tenth, set up a Higher Education Development Fund.*

This fund will be managed by the Commission on Higher Education and allocated to both public and private institutions, using criteria based on national priorities and the effectiveness of the institutions. Through this Fund and other financial mechanisms, the Commission on Higher Education will finance the implementation of the policies and programs on higher education.

## 7

# Making Education Manageable

### **Organizational structure and institutional arrangements**

**T**o guarantee concentration on basic education and consequently achieve greater efficiency and effectiveness, institutional arrangements will be made at each level of the educational ladder. (See Figure 10, the present DECS organizational chart; and Figure 11, the proposed structure.)

We propose a Department of Basic Education, a Technical Education and Skills Development Authority and a Commission on Higher Education to deal respectively with the planning, administration, program formulation, and implementation, as appropriate, of basic education; technical education and skills training; and higher education.

The Department of Basic Education (DBE) will handle basic education, formal and nonformal, which by itself is already a large operation. To ensure that this task is performed, the DBE should not be hampered or sidetracked by other administrative concerns. The cultural and sports institutions within the DECS should be detached and made autonomous. Efficient functional linkages, however, should be kept.

The Technical Education and Skills Development Authority (TESDA) will deal with postsecondary vocational and technical education and skills training and the development and strengthening, among others, of the linkage between education and training on one hand and the employment market on the other.

The Commission on Higher Education (CHED), a collegial body, will have programming and coordinative rather than

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administrative responsibility over higher-education programs and institutions. Higher-education institutions, both public and private, will enjoy autonomy in curricular matters and in determining the academic requirements, charges for admission, the professional competence of students, and research priorities.

The governance of State institutions of higher learning should be changed to make them respond better to the needs of national development.

The CHED will ensure that program priorities are carried out, standards are met and criteria for the efficient allocation of resources are followed. Promotional measures (assistance, subsidies, grants and scholarships) and coordinated planning and programming, instead of direct administrative intervention, shall be observed.

Other institutional needs must be met.

With the emphasis on academic excellence, testing and evaluation become imperative. Thus the National Education Testing and Research Center will be reconstituted as a quasi-private authority, independent of the three institutions above to assure objectivity in testing and evaluation. Thus we propose a National Educational Assessment and Testing Service. It will develop, supervise and evaluate national achievement tests, tests of aptitudes, intelligence and personality as well as those for equivalency, admission and scholarships.

Because education must respond to and keep abreast of technological change, we propose a national center for Leading-Edge Educational Technology. This center will serve both the formal and nonformal subsystems of education. (This proposal is discussed in detail in Chapter 3.)

### **Administrative operations**

The school must be the focal point, the base and common denominator institution of formal education. The classroom is where teaching-learning takes place, and we must make sure that this indeed goes on most efficiently and effectively.



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Accordingly, the school principal shall function as an instructional leader and manager. As an instructional leader, he or she will see to it that the conditions for effective teaching are met: the teacher is well trained and motivated; adequate instructional materials are provided; the teacher isn't distracted by many nonteaching activities and is well supervised and given a voice in improving the teaching-learning environment.

As an instructional leader, the principal makes sure that pupils have no problems of physical access, health, facilities and conditions uncondusive to learning.

The principal ensures that both teacher and pupil are externally assessed and evaluated at Grade 4 for functional literacy, at Grade 6 for elementary scholastic achievement, at second-year high school for aptitude, and after high school for achievement of basic education as well as for vocational preparation. Evaluation of academic performance should focus on the pupil, the teacher, the principal and the school.

As instructional manager, the principal runs the school: he or she fills the teacher positions as needed; supervises the teachers; ensures that the school facilities and services are adequate; instructional materials and equipment are provided; communicates regularly with the district, regional and central offices — and sees to it that he or she himself/herself is adequately trained for the job.

The school will also be the base institutional unit for collecting accurate baseline information on enrollment, cohort performance, educational achievement and the operations of the schools. The school can then efficiently gather systems data.

Given these supervisory requisites, the positions of educational supervisor and district supervisor should not be abolished. Instead, we should rationalize the number and distribution of supervisors based on the number of schools and teachers in the district.

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### **Decentralizing field operations**

We strongly recommend the decentralization of educational operations for the proposed DBE. This requires enhancing the role of the Division and, therefore, the functions of the Division Superintendent for administrative operations. These expanded responsibilities for the Division include the decentralized procurement of essential materials, supplies and equipment (including the distribution of textbooks); planning and implementation of infrastructure and facilities, since the Superintendent can best assess these needs; payroll processing at the division level, coordinated and assisted by the central office; links with Local Government units in carrying out the Local Government Code; and appointment of teachers and supervisors.

With this enhanced authority and responsibility, the superintendent shall then be evaluated based on the Division's performance.

Under these arrangements, the regional offices will assume fewer functional administrative responsibilities and more coordinating and monitoring tasks, effectively linking the Division (as the proposed key field operating unit, instead of the regional office) with the central office.

As field operations and planning for education grow, the Government should devote more time to the program on school mapping and the development of school sites. This is to ensure that complete elementary schools are set up in every barangay and complete high schools put up in every municipality, thereby guaranteeing access to basic education.

### **Planning and coordination**

A crucial component of governance and management is systems planning and coordination to define the strategic direction of Philippine education.

A requisite policy recommendation therefore is to improve the system and process of educational planning and assessment. Assuming that the proposed educational system will operate

with three administrative and programming institutions of coequal status, that other proposed support institutions are created and that educational linkages are made adequate and efficient, there is a need for systems coordination and integration at the national level.

To carry out this all-important imperative, two measures need to be in place. The first is that educational planning must be improved, as well as our system of educational statistics, which must be adequate, accurate and of high integrity. Thus we propose a National Education Statistics Office (NESO) under the National Statistics Office and an Employment Planning Board (EPB) under the Department of Labor and Employment to formulate employment plans and policies that will be the basis of the education and manpower plans of CHED and TESDA.

Second, to provide sustained coordinative and advisory assistance for both the executive and legislative branches, the heads of the DBE, CHED and TESDA shall constitute a National Council for Education to address the issues of national education. Every two years the Council shall organize a secretariat for a multisectoral National Congress on Education, whose conclusions and recommendations shall then serve as the basis of policy, planning and programming proposals for legislative and executive consideration. The Council shall also constitute the secretariat to assess education periodically.

For this purpose, the Council shall call on experts and authorities in various fields of education and be given a modest budget and staff.

The education and training systems can be made responsive to nation-building if the dynamics of collective decision-making are sustained. As we've said in the beginning, education is the business of all.

## 8

# Sourcing Funds for Education

**T**HE DEVELOPMENT of a country primarily depends on its expenditure for education and on the deliberate use of such an investment to enhance the quality and productivity of its people.

### **Underinvestment in education**

Over the last three decades, the allocation for education fluctuated from 25 percent to 32 percent of the total budget in the 1960s to 10 percent-12 percent in the 1970s and to 11 percent-15 percent in the 1980s and early 1990s. For 1992 the proposed national budget for education is only 12.8 percent of the total, while the share of debt service is 36.6 percent. In the light of the Constitutional provision assigning the highest budgetary priority to education, is 12.8 percent an adequate budgetary translation of that provision?

This amount for education contrasts unfavorably with the expenditures of other countries in Asia. As a percentage of GNP (1.3 percent), that of the Philippines is the lowest among the Association of Southeast Asian Nations (ASEAN) and much lower than the Asian average of 3.3 percent. (See Tables 1 and 2.) Thus all levels of education, especially basic education, do not get the financial resources essential to their producing the desired results.

### **Give first and most to basic education**

The state of financing basic education is discussed in Chapter 2 of this Report. It bears repeating, however, that it must get

the biggest share in the education budget and that revenue-generating measures solely for basic education should be pursued relentlessly and given prior attention.

### **The state of tertiary education finance**

1. Neglect of Technical and Vocational Education and Training. In 1988-90 technical-vocational education under DECS (DECS/TVE) was allocated an average of 5 percent and the National Manpower and Youth Council (NMYC) 0.5 percent of the total budget for education and training. Not only has this budget been unevenly distributed across regions and programs; it has also fluctuated widely every year, a condition that disrupts and discourages long-term planning.

2. Budget Inequities in Higher Education. Government contribution to higher education made up only 28 percent, with the private households shouldering 68 percent of the current aggregate expenditures. Government spending per student on public higher education was 104 percent of per-capita GNP in 1988. In developing countries the average was 370 percent. Within higher education, public funds are unevenly distributed, with 89 percent of the budget going to a group with 49 percent of the total enrollment, and 11 percent distributed among the other institutions.

Subsidizing all students in SUCS, as pointed out earlier, is neither equitable nor efficient. It does not discriminate between those enrolled in low- and high-priority programs and does not maximize the returns on educational investment. Significantly, SUCS allocated only 1.6 percent of their 1991 budget for graduate education and 5.9 percent for research.

Government assistance to private IHLs was a mere 9 percent of the total 1992 budget for tertiary education. Since private tertiary institutions operate on the basis of fee-for-service and with little help from Government, they concentrate on low-cost programs, and economize on faculty and facilities at the expense of quality. The average per-capita cost of SUCS ranged from P3,350

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to P7,758 in 1990, significantly higher than the P1,642 - P3,452 average per-capita cost of private IHLs. There is a need to evaluate whether the lower per student cost of private IHLs is the result of lower quality or higher efficiency.

The high unit cost of SUCs may be partly due to the relative concentration of enrollment in expensive courses such as medicine and science. Another cause of high unit cost is the proliferation of SUC campuses with very small enrollments. About two-fifths of the SUCs operate from two to ten campuses. Dispersal of students across five campuses would roughly increase total cost by 55 percent. On the other hand, consolidation of SUC campuses would pull down unit cost. An increase in enrollment from 1,000 to 5,000 would reduce the per-capita operating cost by 57 percent.

### **Financial management in higher education**

The private IHLs' return on equity was 4.2 percent for SY 1989-90. The minimal Government assistance and heavy reliance on tuition weigh heavily on private education.

In the public sector, the incredible underuse and waste effectively reduce the capability of the public IHLs to provide the needed educational services. Moreover, policies and practices in the procurement of resources lend themselves to corruption, further diminishing the system's ability to carry out its mandate. In view of the Government's financial constraints and the increasing enrollments, there is a growing consensus that SUCs should be rationalized and encouraged to seek alternative sources of funding. With fiscal autonomy, they should be able to make the best use of their resources, which include 35,000 hectares of land.

### **Needed reforms**

To fulfill the Constitutional provision of assigning the highest budgetary priority to education, there should be assurance that a) the share of education in the total budget program for

the year shall not be diminished relative to the previous year and shall in fact be increased relative to increased enrollment and the inflationary trend; *b*) that the budgetary allocation to meet the full requirements of basic education shall be given annually in the General Appropriations Act; and *c*) that a provision shall be added in the Budget Decree (P.D. 1177) to Section 16 recognizing the budgetary priority to education as stated in Items a and b, above.

In basic education, P30.329 billion is needed to solve the major problems discussed in Chapter 2. An additional P1.192 billion a year is needed to carry out Sections 14, 19, 24 and 26 of R.A. 4670.

Given the magnitude of this requirement, we also propose the following measures:

1. Early childhood care and development (ECCD) should be financed through private initiative with tax incentives provided for industrial and commercial firms that set up ECCD centers for their employees' children.

2. Government support, both financial and technical, should be given to ECCD centers/cooperatives in depressed communities.

The allocation of resources for vocational and technical education and training hasn't followed the criteria for efficiency, nor is it based on any sound allocation policy. Thus we need to rationalize the financing of manpower development programs. The following recommendations address this need.

1. The priority for TVET may be to ensure that plans are considered in the preparation of the annual budget. The skills development budget shall be based on the principle of sharing the cost of skills development among those who benefit from it, such as the trainees, employers and Government.

2. TVET institutions should be allowed to use the income they have generated from their activities, subject to guidelines and limitations.

3. A levy to support TESDA activities based on a specific in-

### *Sourcing Funds for Education*

dustry committee's perceived needs should be introduced. This shall include a levy on overseas employment agencies/employees by considering them as locally engaged in their occupations.

The generation and allocation of resources in higher education could be made more efficient and responsive to the development needs of the country and its people by:

1. Allowing all incomes generated by the SUCs from all sources to be retained by the institution, to maximize entrepreneurial income;

2. Increasing scholarships and tuition subsidies for students pursuing programs that bring the highest social rates of return or positive externalities to society;

3. Socialized tuition and full-cost tuition schemes in private and public schools should be considered, whereby students from high-income brackets will pay for the full cost of their education while students from lower-income brackets will pay lower tuition.

The private sector can be brought in through *a)* matching grants for the graduates they recruit; *b)* incentives for the commercial/production application of the research outputs of IHLs, proceeds of which may go back to the university or to the Commission on Higher Education or to a corporate foundation which will have the patent rights to the research outputs; *c)* industry consortia to finance "work scholarship" contracts and/or "study now-pay later" programs at the college, university and even postsecondary levels.

A consortium would grant loans to support students who wish to pursue specific courses and who it has determined worthy of being employed in its firms. If they graduate, their loans are written off.

### **On Improving access to education**

1. Encourage Government financing institutions to develop soft loans/grants for private schools.



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2. Amend R.A. 6728.(GASTPE) so that the conditions for using the Faculty Development Fund will be more realistic.

3. Expand the voucher system. This system has been experimentally carried out through the Government Assistance to Students and Teachers in Private Education (GASTPE) Act, or R.A. 6728. The voucher system provides students with subsidies in specific amounts, which they can present to the institutions of their choice. The Government, through CHED or designated financial institutions, shall redeem the vouchers.

### **Sources of funding**

New sources need to be found. If tax collection improves, the first 2-percent increase from the previous rate should go to education. An increase in collection from 17.4 percent (revenue effort) or 14.7 percent (tax effort equivalent) for 1991 to 19.4 percent (revenue effort) or 16.6 percent (tax effort) would boost Government revenues by P58.1 billion based on projected revenue increase from P220.8 billion in 1991 to P278.9 billion for 1992. This amount is more than enough to fill the financing gap in education.

Preneed educational plans should be explored as a viable funding institution. In this case, the Government should develop guidelines to ensure the viability of the plans. The increase in revenue of only seven preneed educational plans in 1989 to P505.483 million is equivalent to setting up one universal bank each year.

New and increased taxes should also be imposed. These are:

1. Increased travel tax, and an exit tax on college graduates who emigrate, the proceeds from which shall go to tertiary education;

2. Increased fees for vehicle registration, to be channeled to basic education;

3. Allocating 50 percent of PAGCOR gross earnings for education;

4. Considering a Debt-for-Education Swap, whereby con-

### *Sourcing Funds for Education*

doned foreign debt shall go to education;

5. Enforcing the policy that the one-percent additional real-property tax shall be for the Special Education Fund and solely used for education to augment salaries and finance the building of schools.

For private education, these measures are suggested:

1. Provide strong incentives to encourage stock IHLs to convert to nonstock foundation IHLs, to encourage persons/organizations to extend assistance, since they would be more willing to donate to nonstock IHLs than to stock ones.

2. Tax credits for persons or organizations who make donations, grants or gifts to nonstock, nonprofit schools.

3. Eligibility for loans/grants from Government financing institutions and official development assistance, which will require revising a current executive branch policy.

4. Adopt measures to set limits on the return on investment of stock corporations to balance the wider latitude allowed them for tuition increases. An example would be the limit set on public utilities.

Over the past 20 years, the Fund for Assistance to Private Education (FAPE) has helped private education. We therefore recommend that FAPE continue operating as a funding agency in accordance with its charter. However, there should be a change in its management. The chairmanship of its board of trustees should be assumed by the Chairman of the Commission on Higher Education. Through this office, FAPE may be strengthened in discharging its functions through the infusion of funds which would be required to maintain its program of assistance.

Remedies to the inefficiencies of the financial management of the educational system could lead to savings and additional income. We propose the following measures:

1. Schools that have demonstrated a good record and have adopted a system of scholarships/socialized tuition should be given wider latitude in setting their tuition and instituting their curricula. Self-regulation through accreditation, market demand

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and competition should play a greater role in determining tuition, enrollment and quality of education.

2. Operating/administrative costs of SUCS can be reduced by a) merging schools with low enrollments; b) avoiding multicampus operations; c) concentrating on programs that are not adequately served by private education and on which the SUCS have capability/comparative advantage; d) standardizing costs and basing budget allocations on enrollment size and academic quality.

3. Land resources and other assets of State institutions should be made to generate more funds. SUCS and nonchartered colleges have more than 35,000 hectares of land, including fishponds of big commercial value. The SUCS can enter into a management contract with a reputable business concern or set up a management/development foundation to manage such properties.

4. A thorough systems and procedures study on the operations of DECS and the schools should be made to identify areas where cost-savings can be realized.

Efficiency in financial management means realizing substantial savings in a huge bureaucracy such as the DECS. Cost savings could go to basic education.

School-related ventures such as the sale of books and school supplies, uniforms, food, etc., and PTA fund-raising and other campaigns should be used for educational operations.

Summarized below are proposed fund sources and the revenues likely to be generated. The list doesn't include amounts accruing from savings due to increased operational efficiency, donations and grants.

1. Improved tax collection from the current rate of 14.7 percent of GDP to 16.6 percent of GDP ..... P. 24.350 billion
2. Debt-for-Education Swap computed based on condonation of 10 percent of

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interest charges of the present estimate of \$28-billion debt .....	4.536 billion
3. Exit tax on college graduates who emigrate computed at P 10,000 per immigrant .....	0.465 billion
4. Additional travel tax of P100 each.....	0.225 billion
5. Additional fees for vehicle registration	
Private vehicles .....	0.146 billion
For-hire vehicles.....	0.132 billion
6. PAGCOR allocation (50 percent of its gross income net of franchise tax) .....	2.000 billion
 SUBTOTAL.....	 P 31.854 billion
 7. Borrowings from sss, gsis, dbp and consortium of banks for classroom construction .....	 11.219 billion
 TOTAL AVAILABLE RESOURCES FOR EDUCATION.....	 P 43.073 billion

## The Task Ahead

**T**HE PROBLEMS and limitations of the present educational system discussed in the preceding chapters can be resolved only through reforms. To improve the quality of Philippine education, to make it accessible to all Filipinos and more responsive to the development challenges of the country, the following legislative and program measures are considered imperative:

### **A. Toward the total development of every Filipino child**

An Early Childhood Care and Development Act should be considered to focus on the child's total development. As part of nonformal education, early childhood care and development (ECCD) should use culturally indigenous learning materials and the child's first language as the medium of instruction.

The Government should provide various incentives for private initiatives in the establishment and operation of ECCD centers in industrial plants or as cooperatives, as well as for the training of parents and community leaders as facilitators.

To equalize opportunities for ECCD, Government support should be given in phases: *a)* Phase 1—to rural, depressed communities; *b)* Phase 2—to urban poor; *c)* Phase 3—to all other ECCD centers.

All bills and executive orders on ECCD need to be harmonized with this Act.

## *The Task Ahead*

### **B. Making quality basic education accessible to every Filipino**

1. Make basic education accessible to all Filipinos through the following: *a)* full support for the Philippine Education for All (EFA) National Plan of Action in meeting basic learning needs; *b)* the establishment of a complete elementary school in every barangay, and a complete high school in every municipality where no private high school exists; *c)* the building of access roads to and provision of basic utilities in these schools; *d)* antitruancy measures, with the Local Government units as administrators and with the substantial participation of schools, families and the barangays, amending for the purpose P.D. 798, the present antitruancy law; *e)* expansion and revitalization of special education programs for the gifted and the handicapped; *f)* the training and appointment of para-teachers to areas that have a shortage of teachers; *g)* the expanded use of the media and other nontraditional approaches in the teaching-learning process; *h)* the development of indigenous/appropriate instructional materials and *i)* the training of teachers in the use of these approaches and materials.

2. Make quality education accessible by: *a)* lengthening the school calendar from 185 days to 200 days and granting provincial superintendents the authority to determine the beginning and end of the school year, taking into account the peculiar circumstances of each community; *b)* adopting incentives to encourage the best teachers to be resident teachers in the rural areas;

3. The adoption of policy guidelines for a language of instruction development to optimize and accelerate learning. The following specific measures will pave the way for Filipino becoming the medium of instruction by the year 2000.

*a)* In Grades 1, 2 and 3, the vernacular shall be the medium of instruction for all subjects, with Filipino as a separate subject and auxiliary language of instruction. Filipino shall continue to be taught as a separate subject until the fourth year of secondary

education.

b) In Grade 3, English shall be introduced as a separate subject and will continue to be taught as a separate subject until the fourth year of secondary education.

c) In Grade 4, Filipino shall be the medium of instruction and will continue to be the language of instruction for all subjects, except English, until the fourth year of secondary education.

d) In the long term there should be a switch to Filipino in technical-vocational education.

e) Aware of the right of institutions of higher learning to academic freedom, the DECS should leave the matter of language of instruction in tertiary education to their discretion.

The DECS shall develop a plan such that between now and 1998, a program for the development of instructional materials in Filipino is adopted and implemented. By the year 2000, all subjects, except English and other languages, shall be taught in Filipino.

4. The institutionalization of testing and evaluation as an instrument of equity and educational quality, and reconstituting the National Education and Testing Research Center into a quasi-private National Educational Assessment and Testing Authority for the purpose and appropriating funds for it.

Administrative mechanisms shall be set up to give due recognition, through equivalency and certification, to learning acquired in the nonformal subsystem.

### **C. Developing a competent, productive citizenry**

1. Conversion of all high schools, except the science high schools and the Philippine High School for the Arts, into four-year general (academic and applied/vocational) high schools.

2. Institutionalization and enforcement of the administration of aptitude tests, the setting up of career guidance and counseling programs in the elementary and secondary schools in coordination with parent associations and industry, and providing mechanisms for their implementation.

### *The Task Ahead*

3. A bill creating a Technical Education and Skills Development Authority integrating the functions of DECS-BTVE, the NMYC, and Apprenticeship Office of DOLE. It shall have a TVET fund to be generated mainly from a levy on payroll and used for skills development. It shall, in cooperation with Local Government units, rationalize and strengthen community colleges which address the development needs of the community and use community-based resources. The Senate and House bills on technical/vocational education, including the establishment of centers of excellence in technical and vocational education and training, should be harmonized.

4. A bill amending the Labor Code to reform the apprenticeship program and to institutionalize the Dual Training System.

5. Reassessment by the Civil Service Commission of the efficacy of its hiring policies that require baccalaureate degrees even for jobs which can be performed by nondegree holders.

#### **D. Improving the quality and status of the teacher and administrator**

1. Upgrading the quality of the teaching profession, strengthening the regulations governing the practice of teaching in the Philippines and prescribing a licensure test for teachers, revising for the purpose Presidential Decree 1006, as amended and for other purposes.

2. Professionalizing basic-education administration through administrative and management training and the granting of proficiency level certificates to serve as entry requirements to administrative positions in the school.

3. Establishing Centers of Excellence for Teacher Education to attract, support and educate the best candidates for teaching.

4. Upgrading the minimum salary of public-school teachers at the elementary and secondary levels from Grade 10 to Grade 17, and ensuring that private-school teachers receive a monthly salary of at least 25 percent more than the minimum wage.



### **E. Strengthening partnerships for optimum learning**

1. Grant of tax incentives to the broadcast and print media that devote air time and space to education, as well as to sponsors that support education programs and create advertisements which have a positive influence on entertainment, social values and cultural awareness.

2. Support of S.B. 1181, entitled "An Act Creating the People's Television Network," as an educational network to encourage positive media contributions to the total educational effort.

3. Support of S.B. 1260, entitled "An Act Providing for Incentives for Community Newspapers with an Educational Thrust."

4. Consolidation of S.B. 1238, entitled "An Act Strengthening the Role of Parents Associations, Creating for the Purpose the National Parent Council," and S.B. 1633, entitled "An Act Strengthening the Parents-Teachers Associations, Defining Their Organizational Mechanisms, Powers and Functions."

5. Encouragement and accreditation of groups involved in alternative learning schemes.

### **F. Enhancing higher education**

1. A Higher Education Act which shall, through a Commission on Higher Education, ensure responsible self-governance, fiscal autonomy, curricular relevance and overall quality in the pursuit of higher learning, advanced studies and research. The Commission shall rationalize and coordinate plans and programs in higher learning and gear these to national development. It shall be given a fund called Higher Education Fund to support the strengthening of institutions of higher learning.

2. Establishment of a National Center for Leading-Edge Education Technology which will assemble high-technology facilities for accessing leading-edge hardware, software and materials and a core of leaders to determine these priorities and to bring technology to bear on education.

### *The Task Ahead*

This Center should be placed under the management of an interdisciplinary group headed by top-level communication technologists, since the development will be on the technical side.

#### **G. Ensuring the sustained effective management of basic education**

1. Support of H.B. 21280, entitled "An Act Vesting in DECS Title to Public-School Sites Which Have Been in Open, Peaceful and Uninterrupted Possession by the School Concerned for a Period of at Least Thirty Years."

Corollary to this is the creation of a multidisciplinary team to prepare a comprehensive school map and site-development plan. One result would be the development of long-term school model designs appropriate to urban or rural settings that use local materials and resources.

2. Conversion of the National Museum and the National Library into autonomous foundations with quasi-private character.

3. Conversion of the National Historical Institute and the Records Management and Archives Office into one integrated quasi-private foundation and harmonize this with S.B. 1568 (providing for the creation of a National Archives and Records Management Center and the abolition of the DECS Records Management and Archives Office).

4. Transfer of the present functions of DECS in national and regional competitive sports to the Philippine Sports Commission and setting up mechanisms for coordination.

5. Transfer of cultural development concerns from DECS to the President's Commission for Culture and the Arts or a body that would set up mechanisms for coordination between DECS and other cultural agencies.

## **H. Better planning, coordination, monitoring and evaluation of education and training**

1. Creation of a National Education Statistics Division within the National Statistics Office to improve educational statistics. Amendments to S.B. 532, entitled "An Act Reorganizing the Philippine Statistical System," should be considered.

2. Creation of an Employment Planning Board under the Department of Labor and Employment, which shall prepare a national employment plan.

3. Creation of a National Council for Education to assess Philippine education periodically in order to make it more effective and responsive.

## **I. Financing education**

1. An Education Finance Act that shall include the following:

*a)* Amendment of Section 16 of P.D. 1177 (Budget Decree) to ensure that basic education gets the highest budgetary priority in education.

The DECS and the Department of Budget and Management shall give consistently the highest priority to basic education. The Amendment shall also ensure: *a)* that the allocation meets the full requirements of basic education and that this is provided annually in the General Appropriations Act; *b)* that the share of education in the total budget for the year shall not diminish compared with the previous year's and shall in fact be increased in proportion to enrollment; *c)* that a provision is added to Section 16 of P.D. 1177, giving budget priority to education as set forth in items a and b, above.

*b)* Adoption by Local Government units of permanent financing arrangements to support basic education as its highest priority.

*c)* Allocation to basic education of the first 2-percent increase beyond the current rate of tax collection.

*d)* Allocation of 50 percent of the gross earnings of PAGCOR to

### *The Task Ahead*

education, a bigger percentage of which could be assigned to basic education as well as to the health and nutrition of school-children. The moral objection to gambling should be weighed against the prospect of a perpetual illiterate segment of the population and the widening gap between the rich and the poor.

e) Increase in the fee for vehicle registration and channeling the additional revenue to basic education.

f) An exit tax on college graduates who emigrate, the proceeds of which shall go to the Higher Education Development Fund to be managed by the Commission on Higher Education.

g) Increasing the travel tax for education.

h) Taxing overseas employment agencies/employees by considering them locally engaged in their occupations. The fund shall be used for staff development of TVET institutions.

i) Allowing full tax credits for donations, grants or gifts to nonstock, nonprofit schools.

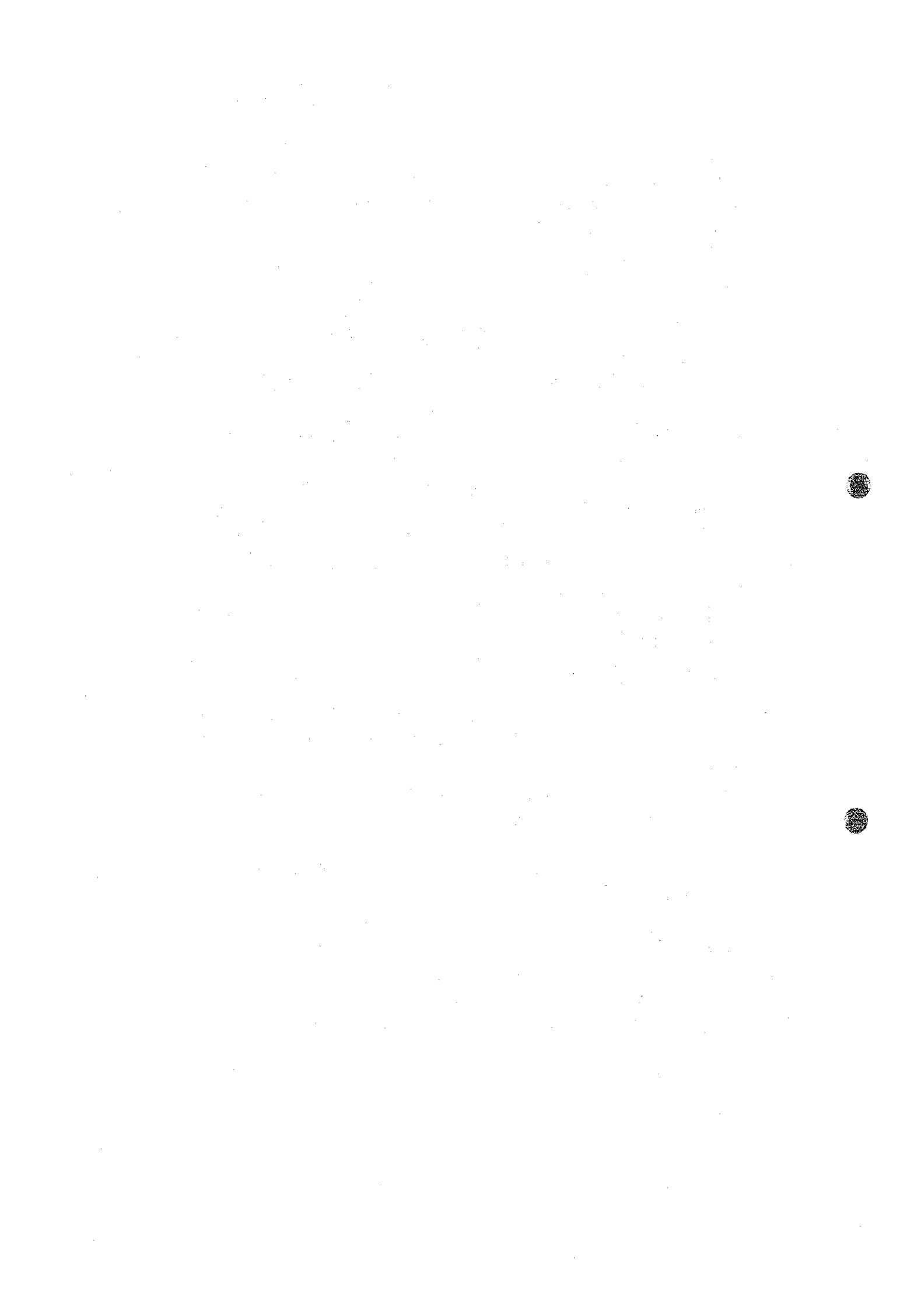
j) Incentives for stock educational institutions to convert to nonstock institutions.

2. A bill limiting the return on investment of stock educational institutions.

3. Adoption by the executive branch of a "Debt-for-Education Swap." Under this scheme, a creditor bank would write off a certain percentage of our foreign debt. In exchange, the Philippine Government will establish a counterpart amount which will go to education.

### **J. Adopting the EDCOM recommendations as the bases for education reforms**

We urge Congress and the President of the Philippines to adopt and use the recommendations of EDCOM as the bases of a medium-term plan for education and manpower development, as well as the indicative and perspective plans for education, and to devise an implementation plan accordingly.



## Tables

*Table 1*  
ASEAN and selected countries in Asia, 1985

<i>ASEAN countries</i>	<i>% of budget</i>	<i>% of GNP</i>
Philippines	13.7	1.3
Indonesia	15	3.7
Malaysia	16	6
Thailand	19.4	3.6
 <i>Selected countries in Asia</i>		
China	7.8	3.3
India	13.7	3
Korea	16.6	3.4
 Average for all countries in Asia	 12.6	 3.3

Source: Jee-Peng Tan and Alain Mingat,  
Educational Development in Asia,  
World Bank, 1989

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Table 2  
Education budget (000) 1/, 1987-92

	1987	% Dist.	1988	% Dist.	1989	% Dist.	1990	% Dist.	1991	% Dist.	1992	% Dist.
1. General administration and support services	1,321,400	8.00%	1,531,977	7.09%	2,268,646	7.82%	2,264,455	6.83%	2,520,225	6.65%	4,664,604	11.83%
% increase			15.94%		48.09%		-0.18%		11.29%		85.09%	
2. Elementary	8,664,736	52.43%	9,882,534	45.74%	12,946,197	44.62%	14,543,819	43.89%	14,416,419	38.02%	18,291,360	46.40%
% increase			14.05%		31.00%		12.34%		-0.88%		26.88%	
3. Secondary education	1,401,403	8.48%	3,225,735	14.93%	7,061,816	24.34%	8,297,681	25.04%	7,492,578	19.76%	7,596,802	19.27%
% increase			130.18%		118.92%		17.50%		-9.70%		1.39%	
4. Higher education	240,419	1.45%	342,666	1.59%	674,483	2.32%	1,131,482	3.41%	1,253,059	3.30%	1,100,524	2.79%
% increase			42.53%		96.83%		67.76%		10.74%		-12.17%	
5. Physical education and school sports	9,777	0.06%	53,067	0.25%	12,961	0.04%	59,871	0.16%	164,241	0.43%	15,944	0.04%
% increase			442.77%		-75.58%		315.64%		204.88%		-90.66%	
6. Technical and vocational education	340,378	2.06%	4,599	0.02%	239,195	0.82%	73,438	0.22%	94,246	0.25%	175,971	0.45%
% increase			-98.65%		5101.02%		-69.30%		28.33%		86.71%	
7. Nonformal education	—	—	7,564	0.04%	39,218	0.14%	105,376	0.32%	62,991	0.17%	48,249	0.12%
% increase					418.48%		168.69%		-40.22%		23.40%	
8. Other regional operations	288,230	1.74%							724,862	1.91%	738,291	1.87%
9. Total DECS budget (subtotal) (excluding attached agencies)	12,266,343	74.22%	15,030,142	69.56%	23,463,007	80.87%	26,893,800	81.16%	26,728,621	70.49%	32,631,145	82.77%
% increase			22.53%		56.11%		14.62%		-0.61%		22.08%	
9A. DECS attached agencies	55,569	0.34%	72,543	0.34%	111,389	0.38%	24,013	0.07%	103,265	0.27%	124,897	0.32%
10. State universities and colleges	2,069,795	12.52%	2,331,471	10.79%	4,016,265	13.84%	4,599,609	13.88%	4,053,294	10.69%	4,676,471	11.86%
% increase			12.64%		72.26%		14.52%		-11.88%		15.37%	
11. Automatic appropriations/ budgetary adjustments	2,135,117	12.92%	4,174,060	19.31%	1,423,770	4.91%	1,520,187	4.59%	7,032,956	18.55%	1,992,279	5.05%
12. Total education budget	16,526,824	100.00%	21,608,216	100.00%	29,014,431	100.00%	33,137,609	100.00%	37,918,136	100.00%	39,424,792	100.00%
% increase			30.75%		34.27%		14.21%		14.43%		3.97%	

The following capital outlays of DECS were incorporated in the DECS Budget:

1987 - 461,153  
1988 - 522,604

1/ Lines 1 to 10 include new appropriations only. Line 11 includes automatic appropriations (retirement and life insurance premiums) and budgetary adjustments.  
Sources: General Appropriations Act, 1987-91; Expenditure Program, 1987-92

Table 3  
Distribution of public spending by level of education showing percentage of GNP, 1985

ASEAN countries	Elementary	% of GNP	Secondary	% of GNP	Higher	% of GNP	Other
Philippines	64	1.2	12	0.3	24	0.4	0
Indonesia	62	2.3	27	1	9	0.3	2
Malaysia	36	2.2	34	2.1	26	1.5	4
Thailand	58	2.1	24	0.8	12	0.4	6
Selected countries in Asia							
China	41	1.3	42	1.4	18	0.6	0
India	27	0.8	47	1.4	19	0.6	6
Korea	57	1.9	34	1.1	9	0.3	0
Average for Asia	48	1.6	31	1	19	0.7	3

Source: Jee-Peng Tan and Alain Mingat,  
Educational Development in Asia,  
World Bank, 1989



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*Table 4*  
**Enrollment in Government and private tertiary institutions,  
 SY 1985-86 to SY 1988-89**

<i>School year</i>	<i>Public</i>	<i>Percentage</i>	<i>Private</i>	<i>Percentage</i>	<i>Total</i>
SY 1985-86	209121	14.92%	1192560	85.08	1401681
SY 1986-87	202201	14.89%	1155463	85.11	1357664
SY 1987-88	222436	15.23%	1238109	84.77	1460545
SY 1988-89	233180	14.76%	1346758	85.24	1579938

Source: *FAPE Inquirer*, 5. 3, Report no. 2, January 8, 1991

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Table 5

Enrollment in higher education and 17-24-year-old population

Region	Enrollment SY 1989-90	Percent	Rank	17-24- year-old pop. as of July 1989	Percent	Rank
NCR	359,663	29.35	1	1,421,932	17.20	1
CAR	39,865	3.25	13	133,902	1.61	14
1	69,146	5.64	8	466,980	5.40	9
2	40,175	3.27	12	301,386	3.64	13
3	82,791	6.75	6	955,445	11.55	3
4	115,155	9.39	2	1,049,531	12.69	2
5	74,833	6.10	7	481,483	5.82	7
6	93,966	7.66	3	683,615	8.27	4
7	88,409	7.21	4	588,224	7.11	6
8	52,037	4.24	9	381,318	4.61	11
9	29,101	2.37	14	425,695	5.15	10
10	84,468	6.89	5	447,205	5.41	8
11	47,385	3.86	11	620,240	7.5	5
12	48,311	3.94	10	328,966	3.97	12
Total	1,225,315			8,265,920		

Sources: DECS Statistical Bulletin, 1989-90,  
NSO, July 1989

Rank is from highest (1) to lowest (14).

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Table 6

Enrollment in tertiary education by field of study, SY 1985-86 to 1989-90

Program	1985-86	Percent	1986-87	Percent	1987-88	Percent	1988-89	Percent	1989-90*	Percent
Arts and Sciences	168978	13.47	179037	14.17	189101	14.80	194272	15.16	178828	14.38
Teacher Education	183062	14.59	195682	15.49	211945	16.59	220333	17.20	220751	17.75
Medicine	121727	9.7	143390	11.35	165052	12.92	192004	14.99	180230	14.49
Engineering	274095	21.85	267997	21.22	264335	20.69	282951	20.52	248551	19.98
Business Education	467229	37.24	440582	34.88	413845	32.39	387746	30.26	357328	28.73
Agriculture	39384	3.14	36485	2.89	33588	2.63	29886	2.33	39507	3.18
Legal Education					15976	1.25	17654	1.38	18550	1.49
TOTAL	1254475	100.00	1263173	100.00	1277866	100.00	1281192	100.00	1243745	100.00

\*Projections

Sources: DECS-BHE Management Information Service, August 1991,  
DECS Statistical Bulletin, 1989-90

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Table 7

Results of board examinations in various professions, 1985-89

Profession	Percent of those who passed per year					Total number of examinees 1985-89	Examinees who passed from 1985 to 1989	
	1985	1986	1987	1988	1989		Number	Percent
1. Business-related								
Accountancy	21	23	23.5	19.63	20.27	87849	18560	21.12
2. Engineering								
Civil	45.5	41	23	21	27.72	48946	15283	31.21
Mechanical	43	55.5	58	60	63	18759	8978	47.86
Assistant								
Electrical	61	59.5	47	44.5	46.39	14966	7915	52.89
Associate								
Electrical	55.5	51.5	31.5	38	21.42	1458	625	42.87
Professional								
Electrical	73.5	70.5	49.5	48.5	21.05	644	339	52.64
Chemical	46	40.5	48.5	30	40.2	7150	3393	47.45
Electronics and								
Communications	32	59	45	40.5	42.58	8352	3949	47.28
3. Science-related								
Geology	67	65	58	62	N.A	319	202	63.32
Chemistry	37	29	11	34	25.44	2045	569	27.82
4. Health-related								
Nursing	66	70.5	48.5	55	56.82	46202	26808	58.02
Medicine	50	82	67	75	71.04	18231	12765	70.02
Dentistry	54.5	52	28.5	55.5	35.8	16784	8356	49.78
Pharmacy	61	59	65.5	46	58.17	5929	3317	55.94
Dietitian	35	46	39	41	46.22	3724	1529	41.06
Optometry	53	49	49	42	52.48	2608	1284	49.23
Physical								
Therapy	95	100	69	29	41.8	1608	869	54.04
Occupational								
Therapy	100	100	75	64	92	77	63	81.82

Source: Professional Regulation Commission, 1991

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*Table 8*

**Enrollment in graduate education by type of program,  
SY 1987-88**

<i>Program at the graduate level</i>	<i>Number</i>	<i>Percent</i>
Arts and sciences	6,346	30.27
Teacher training and education science	8,822	42.07
Engineering and technology	775	3.70
Medicine and health-related programs	334	1.59
Commerce and business management	4,127	19.68
Agriculture, forestry, fisheries and veterinary medicine	237	1.13
Law	39	0.19
Religion and theology	288	1.37
<b>TOTAL</b>	<b>20,968</b>	<b>100.00</b>

\* Based on 77.36 percent retrieval  
Source: DECS Bureau of Higher Education, August 1991

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Table 9

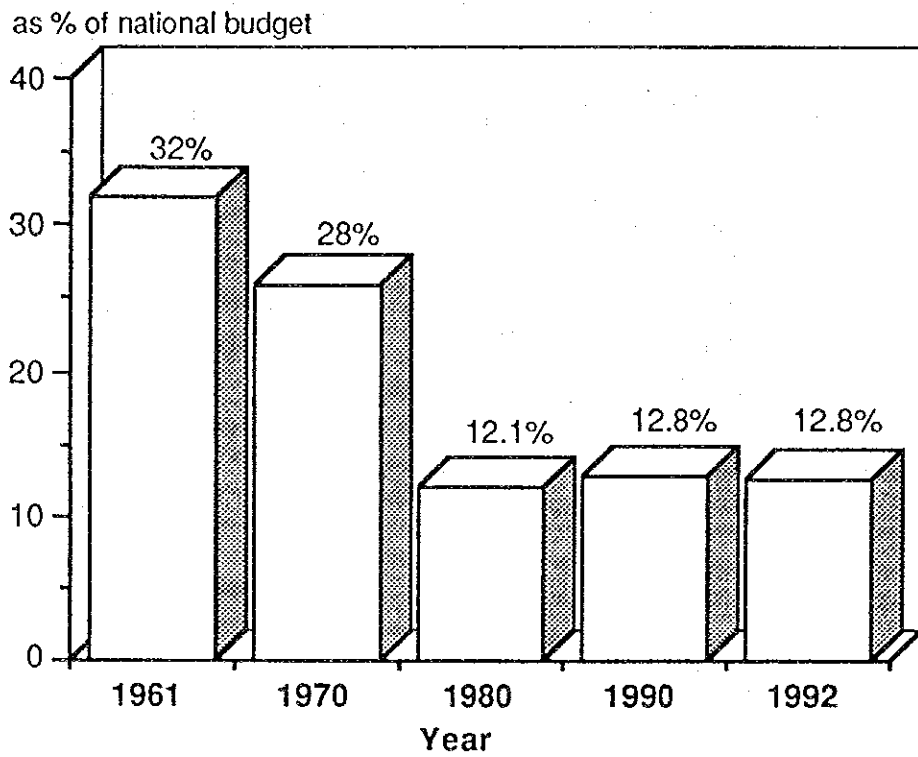
Number of institutions with accredited programs and percentage share in tertiary institutions as of January 31, 1990

Total number of private tertiary institutions		Level of accreditation				Total number of institutions with accredited programs
		Level I	Level II	Level III	Level IV	
637	Number of tertiary institutions with accredited programs	23	57	38	0	99
	Percent share in the total number of tertiary institutions	3.61%	8.95%	5.97%	0%	15.54%

Sources: DECS Statistical Bulletin, 1989-90,  
FAAP, 1990

## Figures

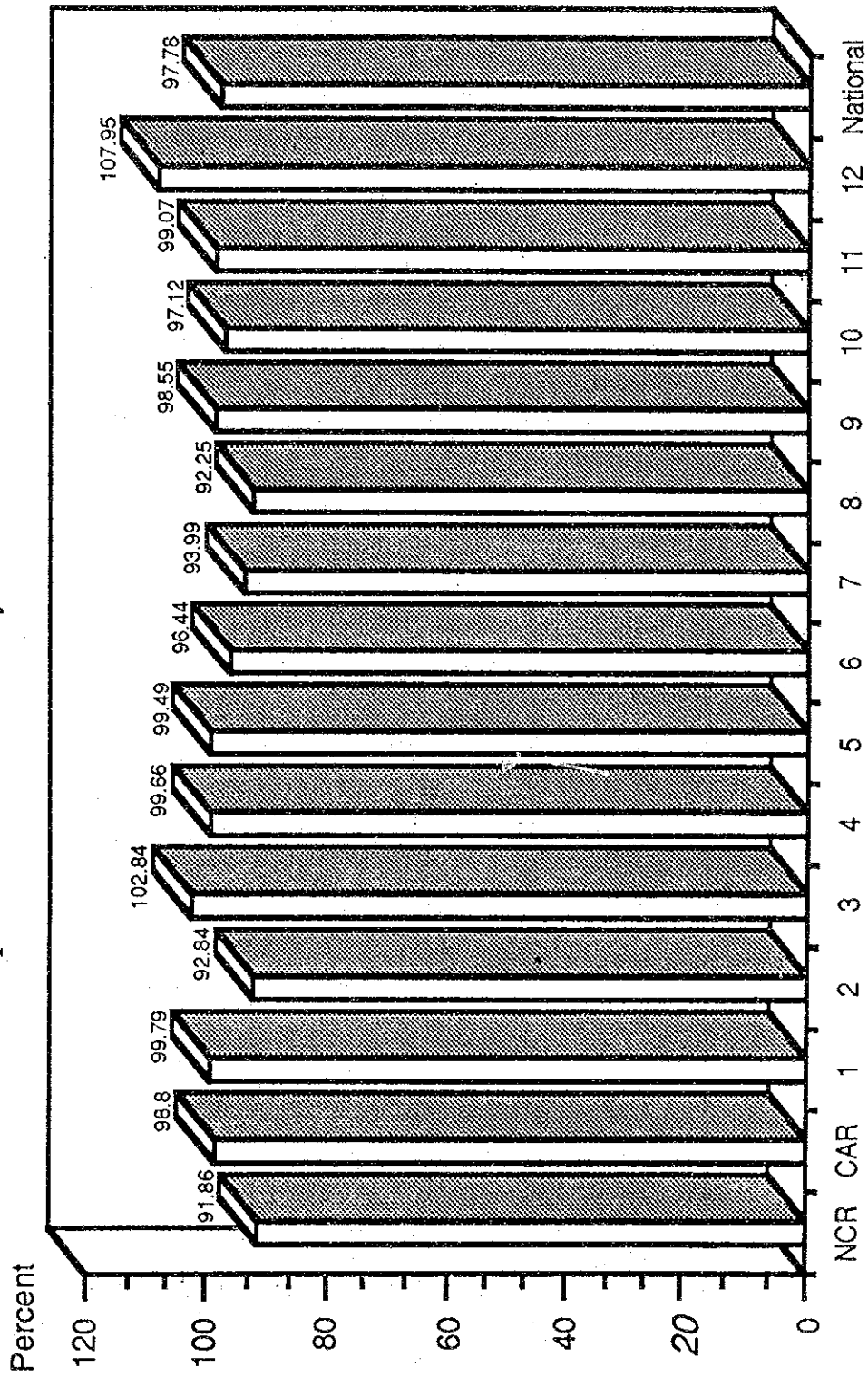
Figure 1  
Government expenditure for education



Sources of data: For 1980—*Fiscal Statistics Handbook, 1976-1987*; 1990—Expenditure Program, FY 1991; 1992—Expenditure Program, FY 1992

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Figure 2  
Participation rates in elementary schools, SY 1990-91



Source: Office of Planning and Services, Decs, 1991



**Figure 3**  
**1989 NCEE results by region**

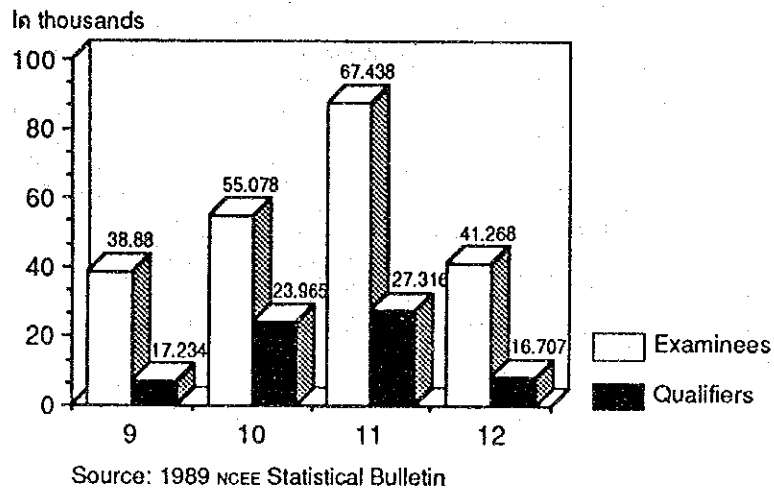
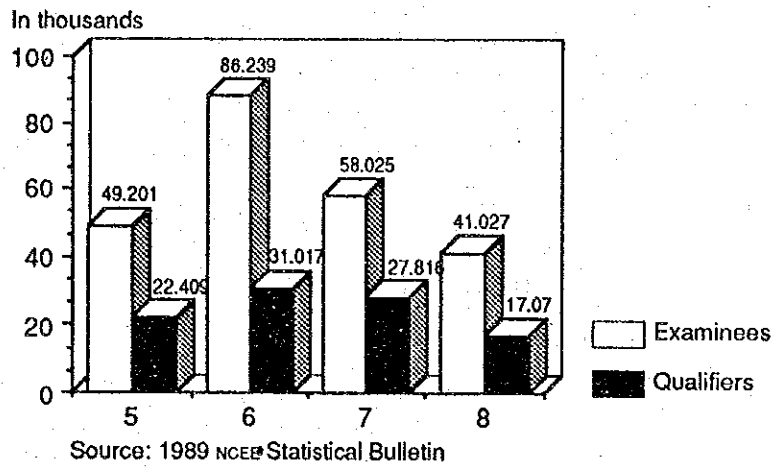
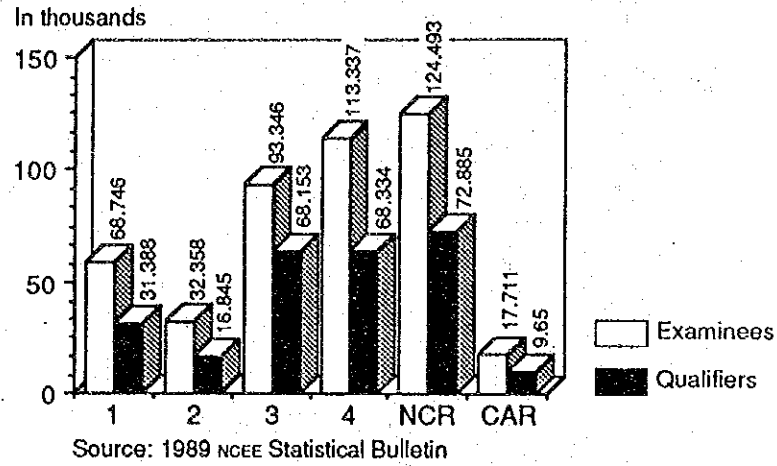
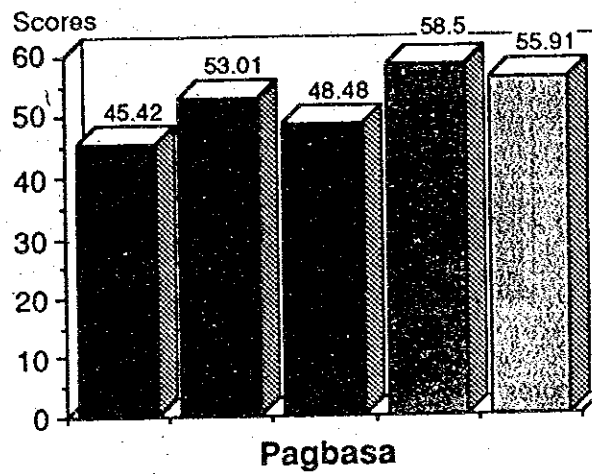
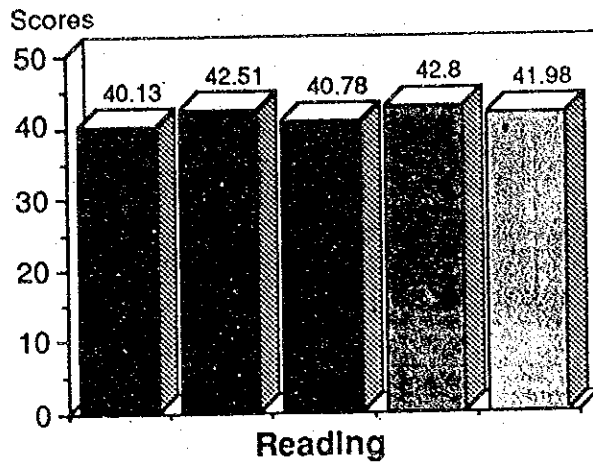


Figure 4  
Comparison of SOUTELE, PRODED and CEM test results  
Grade 6 pupils by subject

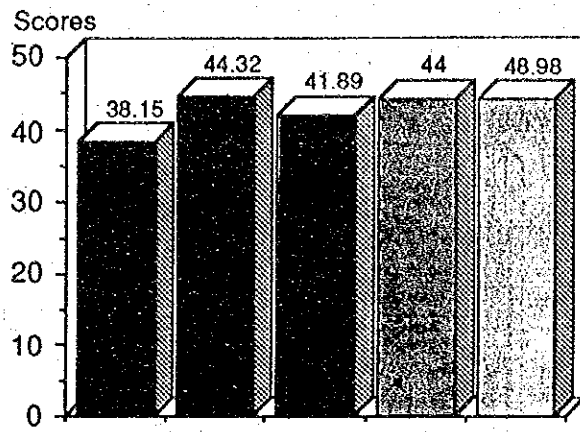


- 76 SOUTELE
- 86 SOUTELE
- 88 SOUTELE
- 89 PRODED
- 90 CEM

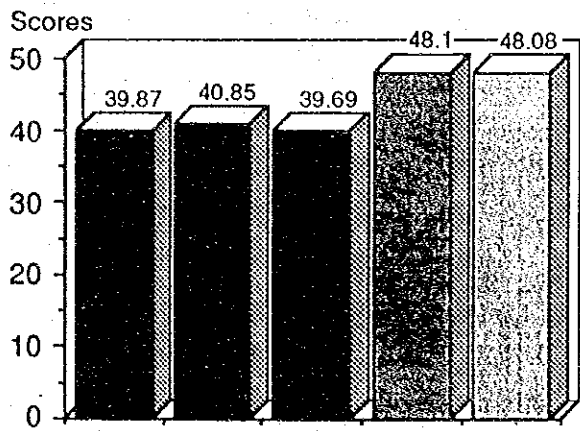
SOUTELE = Survey of Outcomes of Elementary Education  
PRODED = Program for Decentralized Educational Development  
CEM = Center for Educational Measurement

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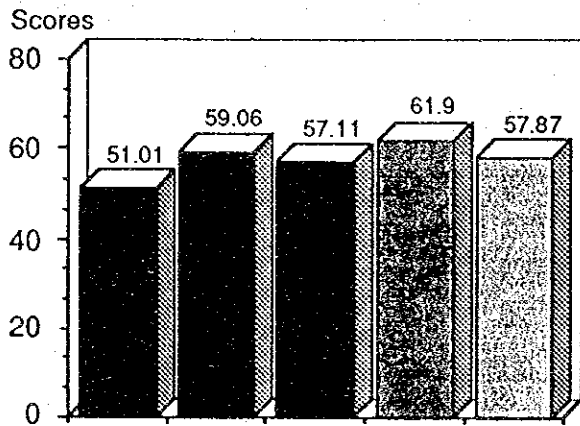
Figure 4 - continued



Math

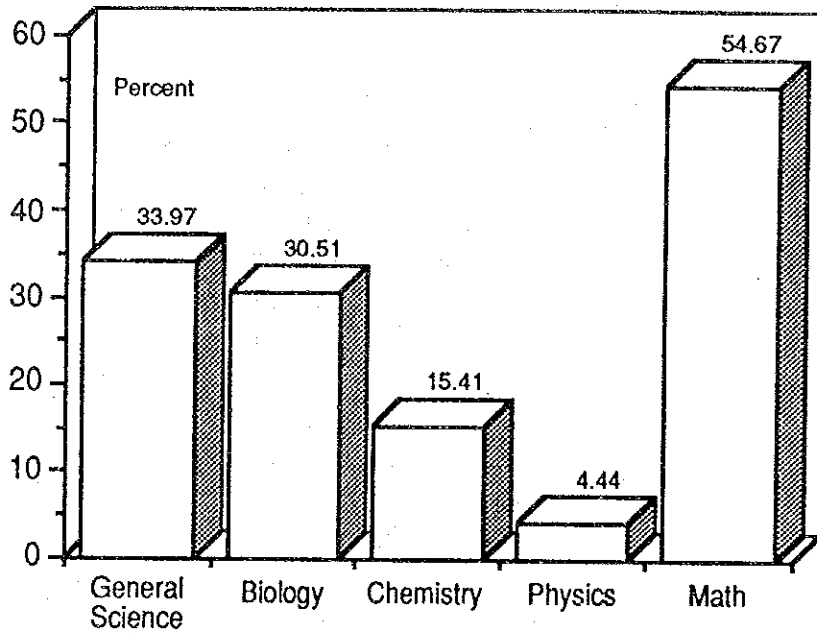


Language



Wika

*Figure 5*  
Percentage of qualified math and science teachers  
at the secondary level



Source: Department of Science and Technology, 1991

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Figure 6  
Proposed educational structure

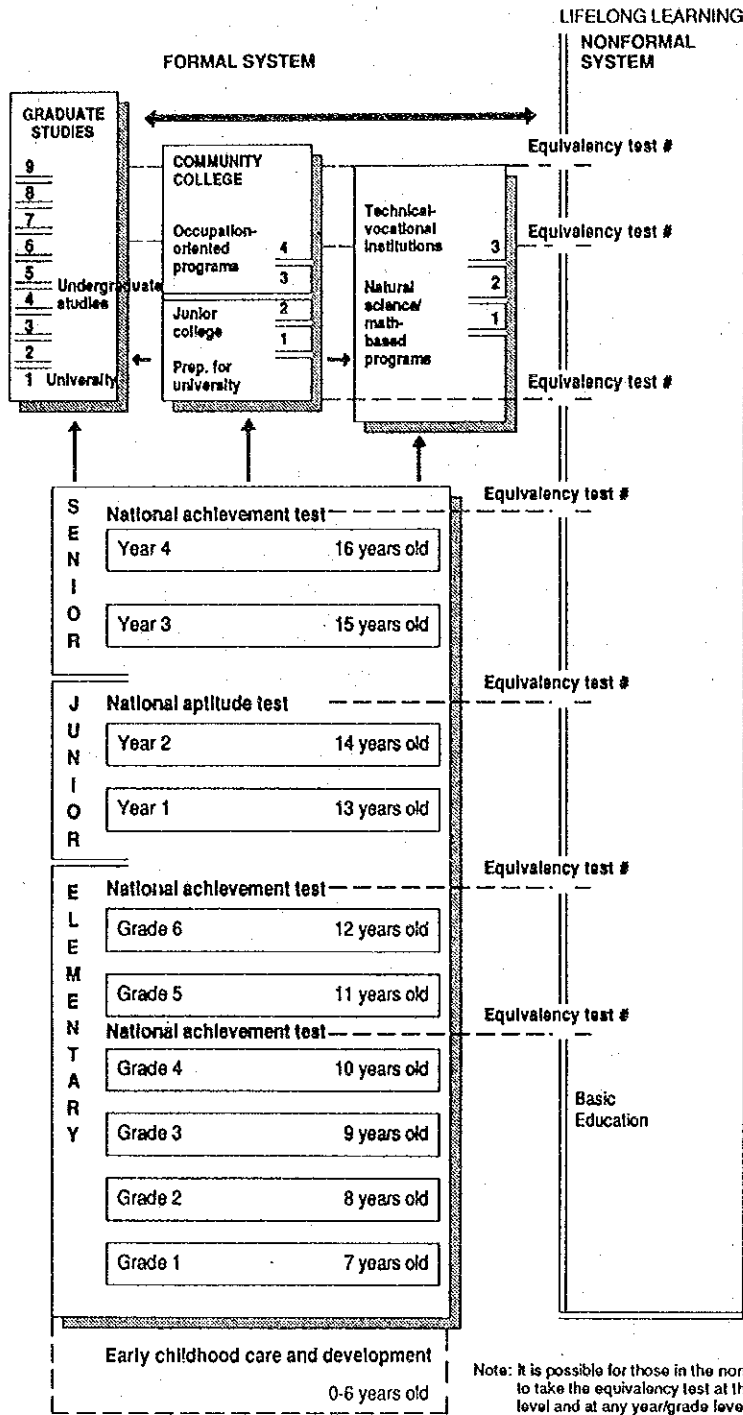
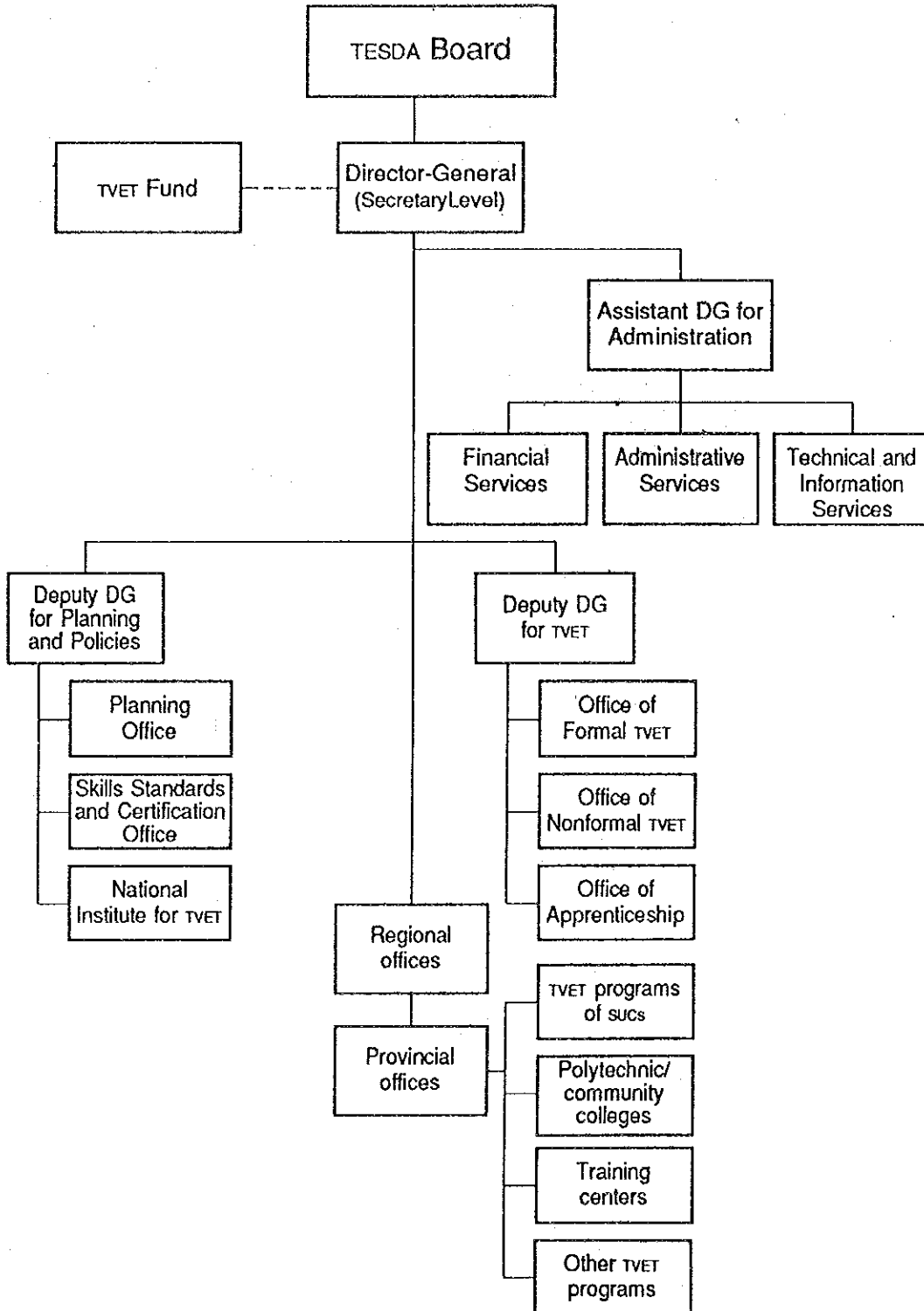
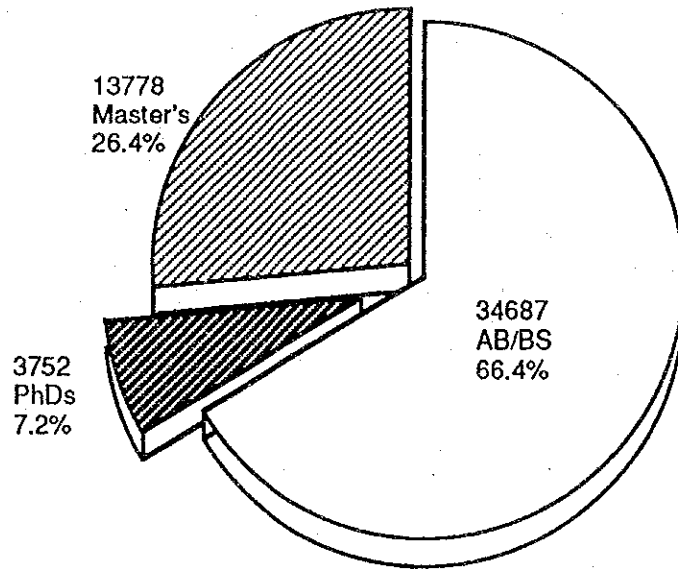


Figure 7  
Proposed Technical Education and Skills Development  
Authority (TESDA) organizational chart

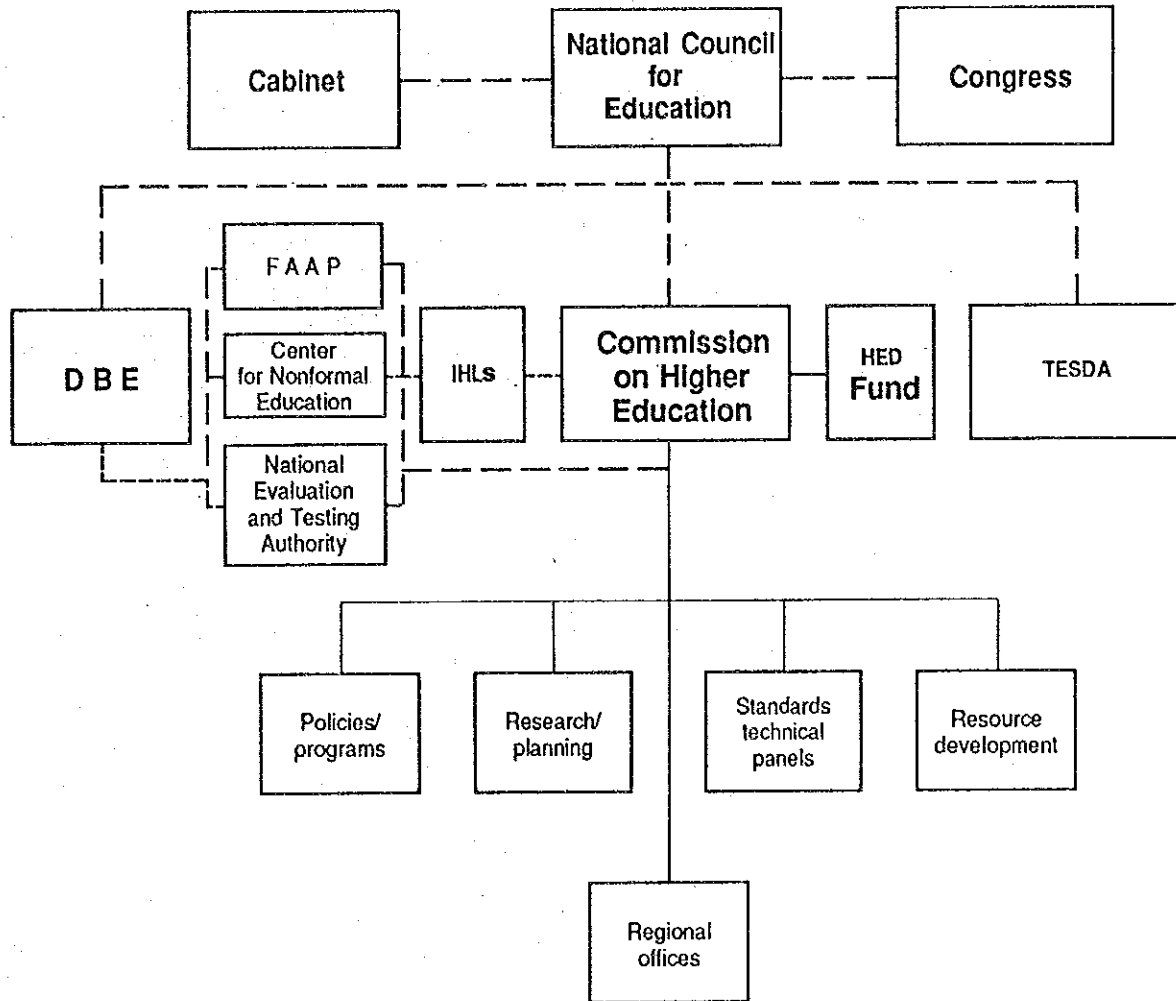


*Figure 8*  
**Qualifications of faculty members in  
private tertiary institutions, SY 1988-89**



For SY 1988-89  
Source of data: becs Bureau of Higher Education, 1990

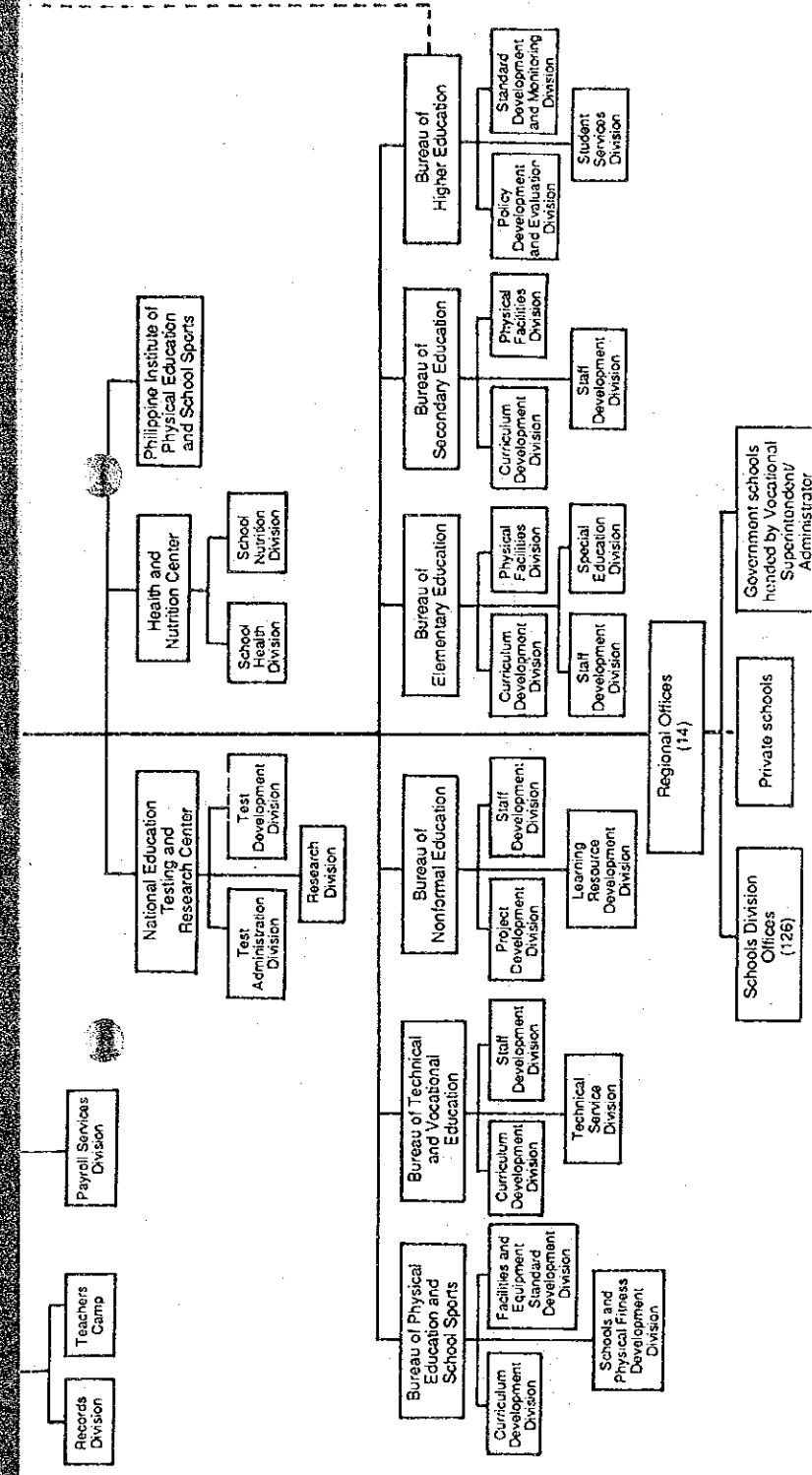
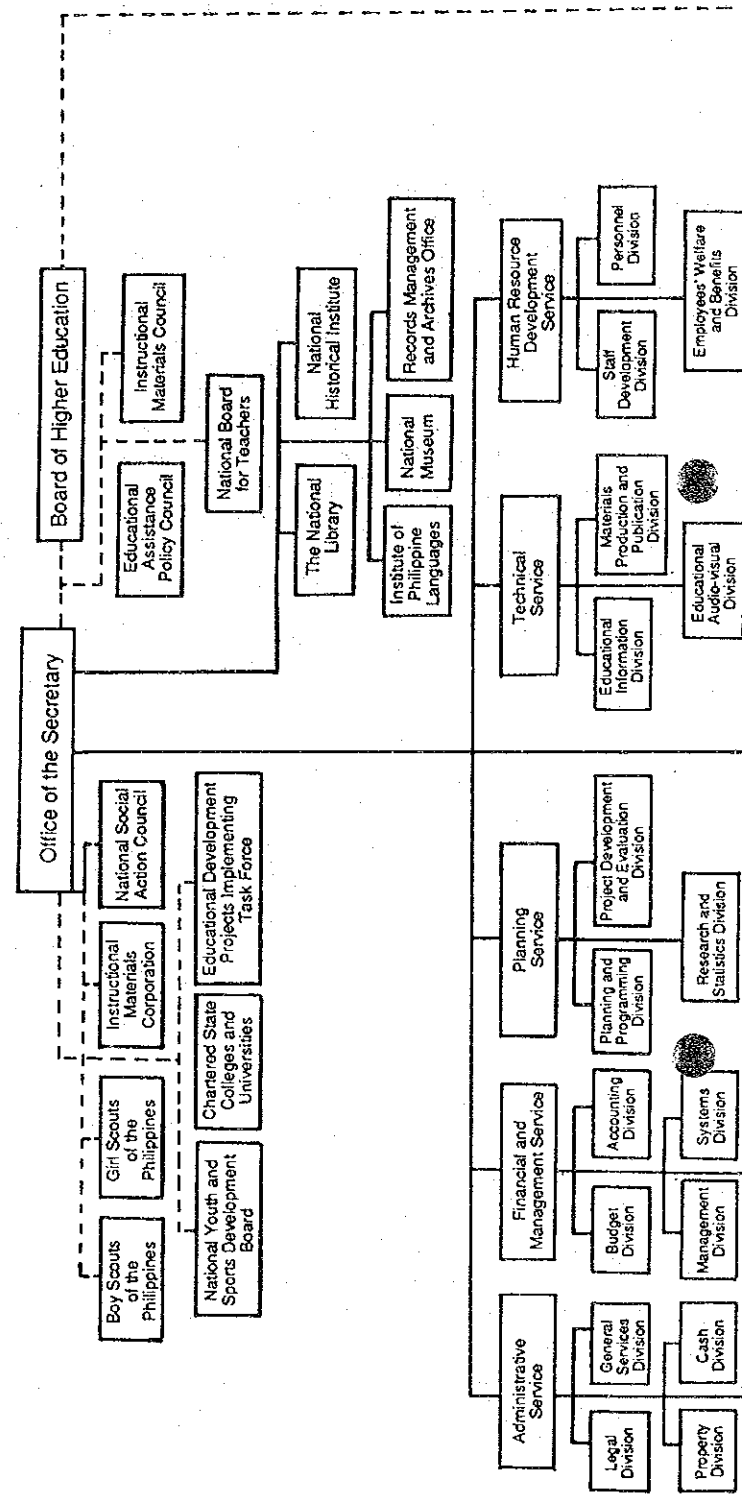
Figure 9  
Proposed organizational chart of the Commission on Higher Education



LEGEND  
 — Administrative linkage/line of authority  
 - - - Coordinative linkage



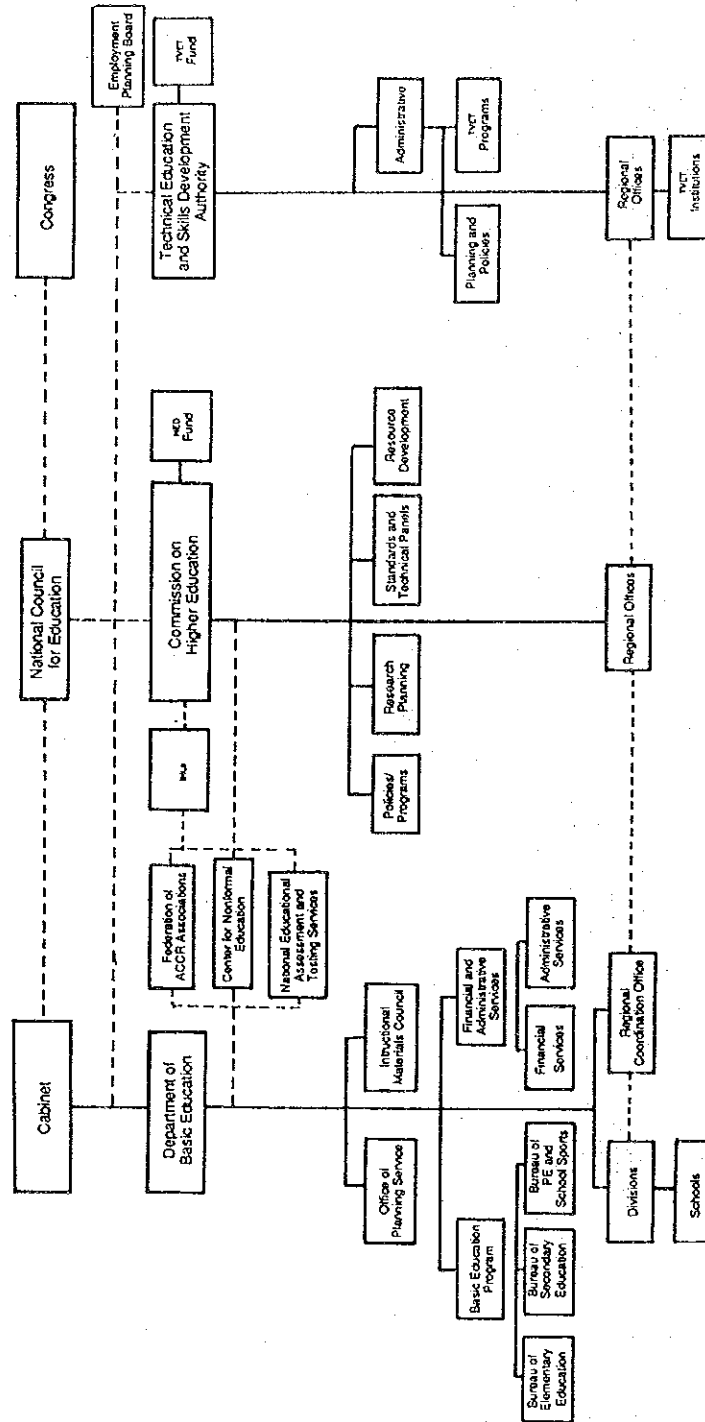
Figure 10  
Department of Education, Culture and Sports organizational chart



Legend: - - - - Attached agencies

Source: Management Division, decs, 1991

Figure 11  
Proposed organizational structure and institutional system for Philippine education



— Administrative linkages/lines of authority  
 - - - Coordinative linkages

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