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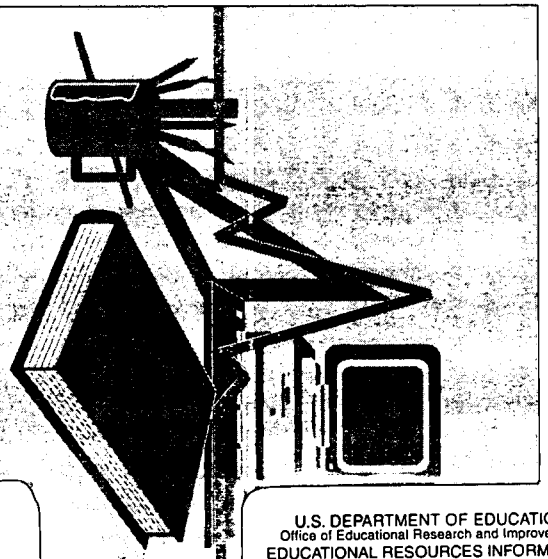
ABSTRACT

This volume contains the Educational Policy Review of Greece undertaken in 1995-96 at the request of the Greek authorities. The book contains two parts with 13 chapters. Part 1 provides the full text of the Background Report, prepared by the Greek authorities for the purpose of the Organisation for Economic Cooperation and Development (OECD) Review. Part 1 chapters include: (1) "Educational Policy-Making, Administration and Management"; (2) "Introduction to the Greek Education System"; (3) "Structure of the Education System"; (4) "Linking of the Education System with the Training System"; (5) "Resources"; (6) "Equity Aspects of Education: Distribution of Educational Opportunities by Region and Sex"; and (7) "Efficiency Aspects of the Education System." Part 2 is the Examiners' Report on which the Committee discussion was based. Part 2 chapters include: (1) "The Setting"; (2) "School Education"; (3) "Higher Education"; (4) "Educational Policy-Making, Administration and Management"; (5) "A Strategy for Change"; and (6) "Issues for Discussion." The annex describes recent reform measures in Greek education. (EH)

OECD

REVIEWS OF NATIONAL POLICIES FOR EDUCATION

GREECE



REVIEWS OF NATIONAL POLICIES FOR EDUCATION

GREECE

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

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EXAMENS DES POLITIQUES NATIONALES D'ÉDUCATION
GRÈCE

FOREWORD

This volume contains the Educational Policy Review of Greece undertaken in 1995-96 at the request of the Greek authorities. The Review programme was completed in April 1996, with the usual discussion by the OECD Education Committee, at its meeting of 2nd April 1996, in the presence of a special Greek Delegation headed by Mr. George Papandreou, Greek Minister of National Education and Religious Affairs.

Part One provides the full text of the Background Report, prepared by the Greek authorities for the purpose of the OECD Review.

Part Two is the Examiners' Report on which the Committee discussion was based. The Examiners for the review were Denis Kallen (Netherlands), Professor Maurice Kogan (United Kingdom) and George Papadopoulos, rapporteur (former OECD Deputy Director for Education). The report is published on the responsibility of the Secretary-General of the OECD.

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THE GREEK DELEGATION

Mr. George Papandreou	Minister of National Education and Religious Affairs
Mr. George Paschalidis	Secretary of State, Ministry of National Education and Religious Affairs
Mr. John Panaretos	General Secretary, Ministry of National Education and Religious Affairs
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Mr. Petros Kontos	Counsellor
Mrs. Tarsia Markomichelaki	Counsellor

PREFACE

This review takes place during a period of major changes. These changes demand a different orientation to the Greek education system.

For Greece, the orientation is clear: our new role in the Balkans and the Mediterranean; our active participation in the European Union; our important geographic location at a vital commercial crossroad; our new political, economic and cultural co-operation with nations in the area; our conversion from a nation of emigrants to one which now is on the receiving side; our agricultural and industrial modernisation; and the preservation of our cultural and ecological wealth.

Every nation faces problems of world-wide consequence: the internationalisation of markets; the knowledge society; the rapid technological and professional developments in production; the major problem of ecological destruction; the scourge of AIDS and drugs; the ever-increasing international competition; the unemployment of youth; the discrimination of minority groups; the challenge of a multicultural society.

Our education system is called upon, in all its facets – from the traditional school to distance education and continuing education – to respond, and give solutions, to the problems that arise, converting these solutions into aims, goals and educational innovation.

Our education system is called upon, at the same time, to give answers to all these issues in a way which guarantees equality in opportunities, and in this way, to reinforce our democratic ideals. The democratic ideals of our nations should not be expressed simply as laws and rights, but as the citizen's ability to actively participate in the society. This is what education can give.

Today, our education system is unfortunately still extremely centralised and inflexible, bureaucratic and insensitive to the changes around us. In short, it lives in a world of its own, in total isolation of the economic, social and international realities, unable to respond to the needs of society, of youth, as well as to the explosion in computer technology, the demand for greater connection with the real needs of society, of production and of international competition. It can not accommodate a modern Greek society; it is incapable of coping with the needs of bicul-

tural and environmental education; it remains distant from the problems and concerns of our youth and the social problems created by unemployment, drugs, etc.

Our aim, therefore, is to mobilise the "sleeping giant" of the education world – but also of all Greek society – in order for it to take the initiative and responsibility with us, in a common effort to decentralise and upgrade our education system.

The National Education Council (ESYP), which met for the first time at the end of October, 1995, will guarantee the widest possible participation in the processes and procedures which concern all levels of education and especially in the design and development of curricula. In this way, not only will continuity be given to our educational policy – regardless of Ministers and governments – but paternalism will be replaced by the decentralised administration of the system.

I hope that the valuable work and effort which has gone into this review of the Greek education system will manage to wake the "sleeping giant". I believe that it will give it food for deep thought and discussion regarding our education system which will result soon in decisions and actions.

I thank all those who contributed and who continue to contribute with much effort to this report, as I thank also each and every one of those who toil for the upgrading of our education system. They prove with their effort, their zeal, and their invaluable efforts, that education is a sacred mission for the people of Greece.

George A. Papandreou
Minister of National Education and Religious Affairs
Athens, October 1995

Part I

EDUCATION IN GREECE

Background Report prepared by the Greek authorities

The Background Report was prepared and edited by a Committee consisting of the following persons:

Panaretos John	Professor, Athens University of Economics and Business, Chairman of the Committee, OECD liaison for the Review, Secretary General, Ministry of Education and Religious Affairs
Charismiadis Vassilios	Section of Statistics and Operational Research, Ministry of National Education and Religious Affairs
Kafetzopoulos Gregory	Director of Planning and Operational Research, Ministry of National Education and Religious Affairs
Karayannopoulos Elefterios	General Director of Planning, Ministry of National Education and Religious Affairs
Kassotakis Michalis	Professor, University of Athens, Former President of the Pedagogical Institute
Kolyva Vassiliki	Head of Research and Studies Department of Organisation for Vocational Training and Education
Kostaki Anastasia	Former Advisor of the Pedagogical Institute
Mastoraki Maria	Section of Statistics and Operational Research, Ministry of National Education and Religious Affairs
Melas Dionysios	Vice-President of the Pedagogical Institute
Palaiokrassas Stamatis	Vice-President of the Pedagogical Institute
Psarakis Stelios	Advisor of the Secretary General, Ministry of National Education and Religious Affairs
Vassilopoulou Marina	Organisation of School Buildings

INTRODUCTION

Three reports on Greek education have been commissioned and published by the OECD since 1961. The first one, in 1961, reviewed the reform measures of that period, while the second, in 1965, was part of the Mediterranean Regional Project and aimed at an assessment of educational needs and requirements from the perspective of manpower planning, and the third, in 1979, discussed necessary reforms. The 1980 publication, entitled *Educational Policy and Planning* (published by the Greek Ministry of Education), summarised reforms up to that point in time and comprised three parts: Part One reviewed the educational reforms and policies undertaken in 1960-80 and the structure of the education system before and after the 1976-77 reforms; Part Two dealt with quantitative information on Greek education and society, and focused on trends in enrolments, student/teacher ratios, educational opportunities and the performance of the system; Part Three outlined and analysed two major legislative measures – the 309/1976 Law on General Education, and the 576/1977 Law on Technical and Vocational Education. The 1980 report therefore, in its 180 pages, had a very clear and precise goal: to look at educational reforms to the Greek education system.

The 1980 report in its epilogue, expressed apprehensions about the implementation of "educational modernisation and democratisation" not only because these are "arduous tasks in all liberal societies", but more so, since Greece, is "a country with deeply entrenched traditions, very limited resources, conflicting ideologies and a history of educational conservatism, as well as frequent political changes". Nevertheless, the authors were optimistic and believed that "since 1974, the country has enjoyed unprecedented stability, educational and public opinion has been more receptive to modern currents of thought, and so, the political leadership is determined to see that the reforms are successfully carried out". Therefore, they suggested, "there is every reason (...) to believe that (the) educational reform (...) will not suffer the fate of previous efforts". To what extent the situation has improved will be shown in the present, 1995 report, which will review the current situation. The OECD Examiners' Report (Part Two) will also provide valuable insights and it is hoped that such descriptions of the system as "highly centralised", and governed solely by "Parliamentary laws and executive acts" or managed "by a powerful centralised bureaucracy" (OECD, *Reviews of National*

Policies for Education: Greece, Paris, 1982), will not be manifest and that unmistakable evidence regarding the participation of the people in the planning and administration of education will be apparent.

It must be noted that during the years 1982-85 a major movement to reform education took place and was evidenced through the application of three fundamental new laws: *i)* the 1268/82 Law for Higher Education, which among other adjustments, abolished the all too powerful institution of "Professorial Chair" replacing it with a more pluralistic approach to subject-teaching and allowed the participation of students in the organisation of universities; *ii)* the 1401/83 Law, which upgraded the Institutions of Technological Education to the level of Tertiary Education institutions and, at the same time, promoted the quality of their studies; and *iii*) the 1566/85 Law which concerned itself mainly with the reorganisation, democratisation and decentralisation of primary and secondary education by introducing new national, regional and local bodies and authorities, new procedures, etc. The latter reform was an all-encompassing reform which shaped the profile of the present education system considerably, promoted special education and adult education, and developed in-service training for teachers. It also introduced the new institution of Integrated Lyceum (EPLs); simplified the language-grammar by establishing the "one-accent-only"; modernised and revised curricula and textbooks; abolished entrance-exams to upper secondary education; created the post-lyceum public preparatory centres for higher education, and so on.

Although in the intervening years, further adjustments, including the abolition of certain reform measures (such as the post-lyceum preparatory centres), have taken place (as will be described in the present report), some continuity in the goals and orientation of the two most recent reforms (those of 1976 and those of 1981-86) are apparent. And this, in itself, is an encouraging development.

However, this introduction is perhaps the appropriate place to mention a few particular characteristics of education in Greece, as determined by socio-economic, historic, political, and other factors. These characteristics may emerge occasionally from the figures and indicators of the relevant research findings – but it is worth pointing out the characteristic concerning curricula for the teaching of the Greek Language (or History in this respect). The Greek language is the oldest language in Europe and plagued by many modifications requiring specialised curricula and syllabi to familiarise the Greek pupil with the texts that were written at the beginning of our century (let alone previous centuries). The quality and outcome of curricula, syllabi, textbooks, therefore, are areas of lengthy debate regarding educational policy in Greece and cannot be examined separately from other interdependent variables such as the financing of education (in Greece public education from pre-school up to university education is provided free) or the deficiencies in classroom stock (which result necessarily in a certain inflexibility for the implementation of new curricula).

Greek education has nevertheless come a long way. Recently, the National Council for Education (ESYP) was established and met for the first time, in October 1995. This Council, will guarantee the participation in all procedures for the three levels of education and especially in their design and organisation.

The same decree legalised the establishment of the Institute for Continuing Education (IDEKE) which aims to develop mainly continuing education using new technology and modern communication media for education from a distance. The Open University will also move in the same direction. It will start in 1996.

An issue which is of great importance to the Ministry is decentralisation of the education system. A special committee has been established to examine this matter carefully and systematically.

The modernisation and reorganisation of tertiary education is one of our main priorities.

One cannot also ignore the continuous increase in the demand for university education – a demand which should be considered as an invaluable national asset. This demand has been met on the one hand, with the creation of new universities or the expansion of existing ones (in a period of limited State budget, both objectives are almost paradoxical), and on the other, with the great numbers (still not estimated with precision) of Greek students studying abroad. Not surprisingly then, the entrance examinations process to tertiary education is a continuous issue of national debate and criticism.

Finally, the development of education in Greece cannot be viewed in isolation of its turbulent, socio-political context. In the 167 years for example, since the country's emergence as an independent State, it has been involved in more than four wars, a three-year foreign occupation, two long-lasting dictatorships, one extremely bitter and devastating civil war, numerous *coups d'état*, intermittent civil wars and large influxes of refugees and immigrants. Such a history for a small country as Greece weighs heavily on national development and has numerous repercussions on Greek education. Evidence of the particular historical conditions in which the Greek State has developed is the fact that the formal title (and in part, function) of the Ministry of Education is "Ministry of National Education and Religious Affairs". Its ancestor was, during the 1833 ten-year Greek State, the "Secretariat for *Religious* and Public Education".

Athens, September 1995

EDUCATIONAL POLICY-MAKING, ADMINISTRATION AND MANAGEMENT

The Greek education system remains predominantly a centralised one, in spite of considerable decentralisation that has been realised in recent years. For example, the Ministry of Education (MoE) is the main centre for decision-making and the formulation of educational policies. Moreover, the majority of the educational establishments in Greece (and of Greek schools abroad) are controlled by this Ministry. Therefore, it is appropriate to start the discussion with the responsibilities of the MoE.

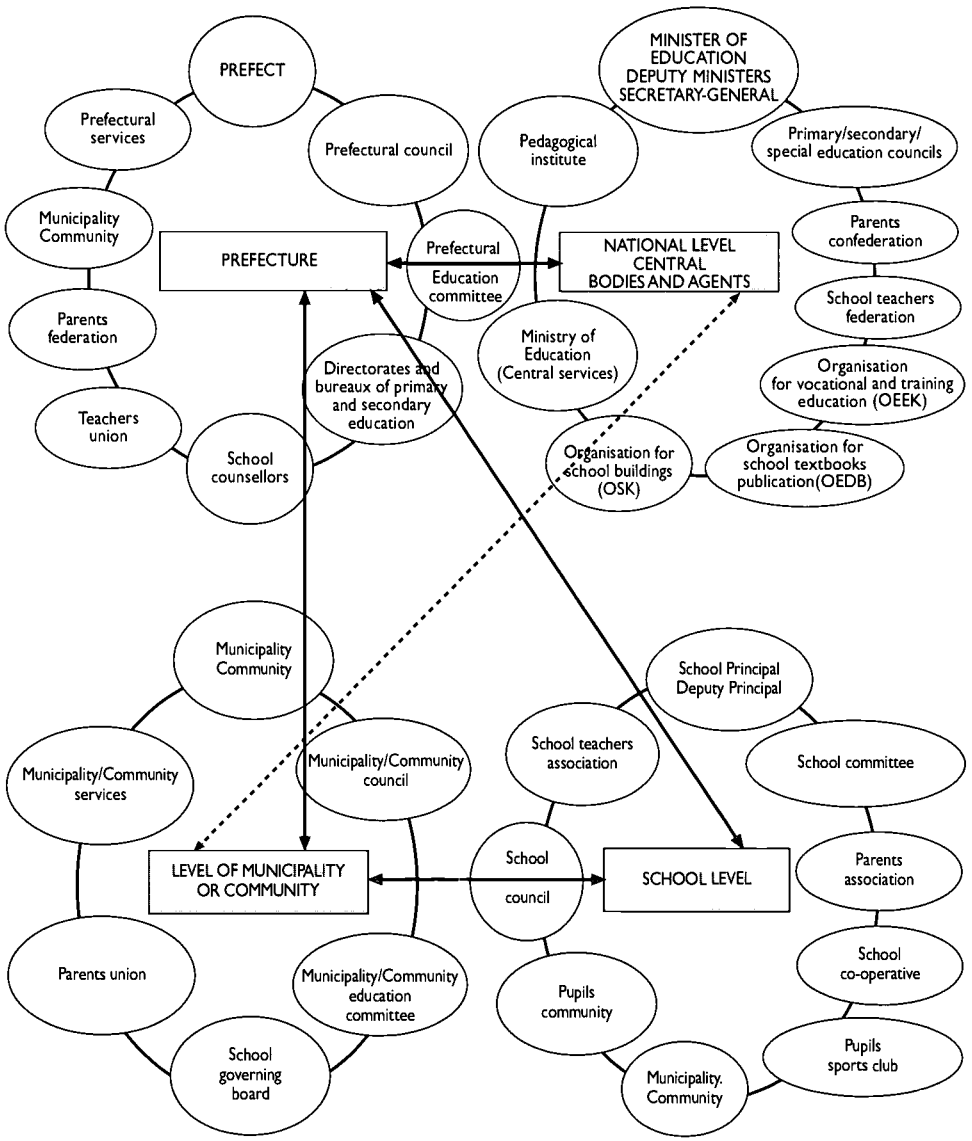
THE ROLE OF THE MINISTRY OF EDUCATION (MoE)

Basically, the MoE formulates educational policies according to the political orientation of the country's administration. These policies generate draft-laws that are submitted to Parliament for debate, after which – with occasional amendments – they become laws (decrees). The MoE is then responsible for their implementation and puts them into action through decrees, directives, and circulars addressed to the regional and local educational authorities, to the legal entities of public law or the civil entities that the MoE supervises. The MoE follows up the implementation of these laws and intervenes if necessary, to adjust or correct their implementation.

The MoE decides on almost all the issues that concern teaching, personnel administration, expenditure, school operation, etc. It is also responsible for the drafting and managing the two annual education budgets (current and capital), apart from the Prefecture budgets (comprising also education sections), which are drawn-up by the Prefectures themselves.

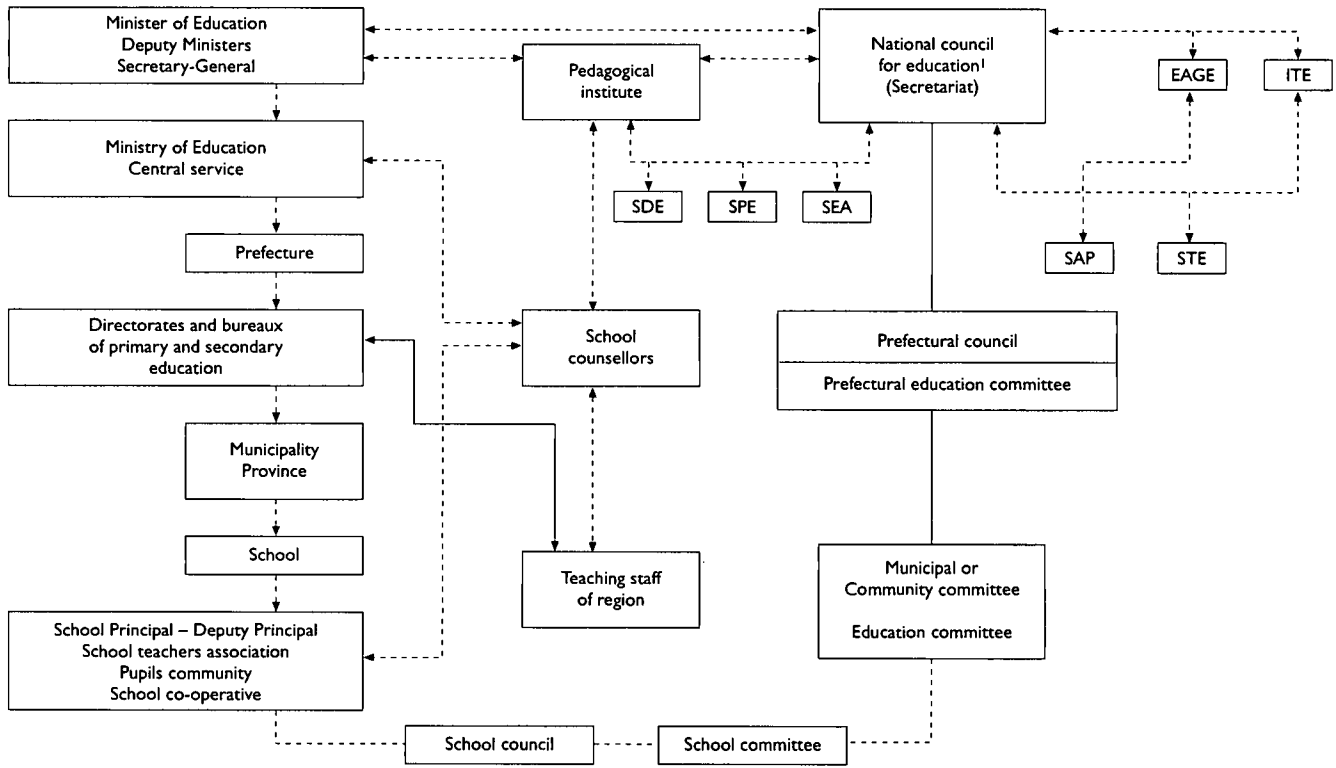
The MoE is headed by the Minister of Education, who is assisted by a Deputy Minister, a junior Minister and a Secretary General. There are also five General Directors and two Special Secretaries for certain groups of directorates with similar areas of competence (see Figure 1.5). In January 1995, the MoE headquarters comprised of 34 directorates (with 113 sections) which is a slight increase to the 1987 figure of 30 directorates (and 110 sections). This increase was mainly due to

◆ Figure 1.1. ***Authorities and bodies responsible for the administration and planning of primary and secondary education by administrative level***



Source: Ministry of Education.

◆ Figure 1.2. ***Diagram of the operational structure of education***



1. Not yet in operation.
Source: Ministry of Education.

structural changes within the MoE.[1] Nevertheless, the existence of many small divisions within the MoE (directly related to the staff salary scale in co-ordination with promotion levels) leaves much room for improvement and it is hoped, that the new organisation chart (see Figure 1.4) will prove more efficient and balanced. In some of the versions of the proposed organisation, a Directorate for Educational Planning is included (which comprises divisions responsible for education and labour market, planning of tertiary education, etc.). The operation of such a directorate will contribute considerably to the co-ordination and achievement of educational goals and objectives. It must be noted that such a Planning Operation Unit had been discussed in 1984, when an especially constructive collaboration with the International Institute of Educational Planning began.

The Minister of Education relies on the Central Service of the Ministry for the necessary administrative support in formulating educational policies and for supervising the implementation of these policies. In these tasks, the Minister is also assisted by the bodies and agencies described in the following section.

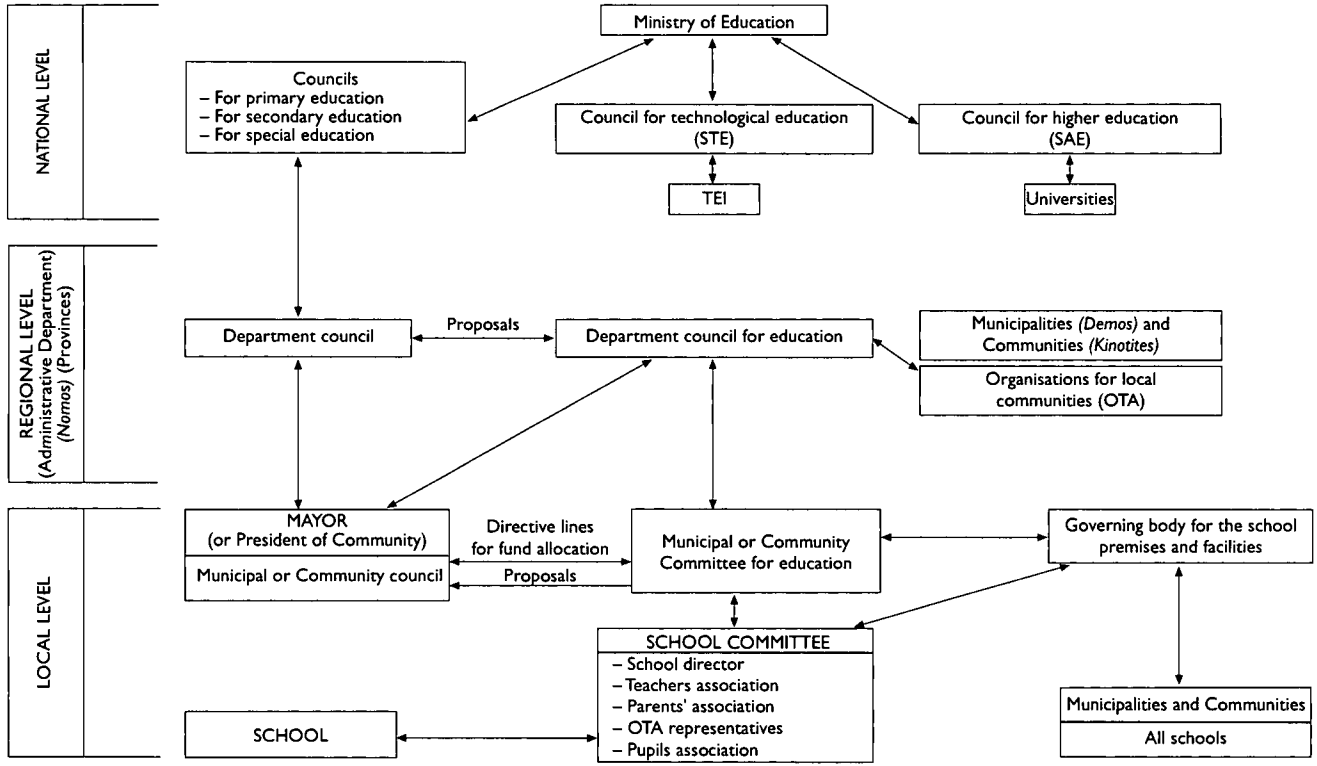
BODIES AND AGENCIES

The following councils function at the national level: the Council for University Education (SAP); the Council for Technological Education (STE) – acting for higher education, non-university, technological institutions (*i.e.* the TEIs); and the Central Council for Secondary Education (KYSDE) and the Central Council for Primary Education (KYSPE) – acting for the respective education levels. Their structural relations are shown in Figure 1.2.

The Minister of Education, Mr. G. Papandreou, has recently introduced a law establishing a National Council for Education (ESYP), which was introduced during the 1981-86 educational reform measures. It consists of a President (proposed by the Minister and endorsed by a parliamentary committee) and representatives from: other Ministries; representatives from various professional groups; all university rectors and TEI Presidents; the Pedagogical Institute; the political parties; the Orthodox Church; the National Federation of Local Government; teaching and research staff in higher education; the Confederation of Parents; the National Students Union; the Federations of Primary and Secondary School Teachers; and the Confederations of Greek Industries. Given the turbulence characteristic of educational developments in Greece, where changes in educational policy are dependent on governmental changes, as well as successions of Ministers of Education within the same party, it is apparent that the operation of such a National Council may contribute considerably towards a national consensus for consistency in educational developments.

Until very recently, at national level of operation (see Figure 1.2), there were two major institutes that were directly controlled by the MoE, but at the same time,

◆ Figure 1.3. ***Structure of collective bodies involved in the process of the democratic planning of education***



Source: Ministry of Education.

they were independent of the Ministry's Central Service (see Figure 1.2). These are, the Pedagogical Institute (PI) and the Institute for Technological Education (ITE). The former is responsible for research on issues related to primary and secondary education, proposals on the orientation, planning and programming of educational policy for primary and secondary education, the study and follow-up of educational technology and its implementation, and the planning and supervision of in-service teacher training. The ITE deals with similar fields concerning the structure and content of higher technological education. Other central agencies include: the State Scholarship Foundation (IKY) which administers scholarships to students, the Centre for the Recognition of Foreign Academic Degrees (DIKATSA), and the Service for the General State Records.

Besides the agencies mentioned above, there are also the following legal entities of public law (see Figure 1.1):

- the Organisation for School Buildings (OSK) concerned with the construction and equipment of school buildings (mainly for the greater Athens region);
- the Organisation for Publication of School Textbooks (OEDB), which is concerned with the publication of textbooks for primary and secondary education;
- the Organisation of Vocational Education and Training (OEEK) which is responsible for the implementation of the objectives of the National System for Vocational Education and Training (ESEEK) and for the management of public and private IEKs.

Finally, special mention should be made of the Secretariats under the MoE. These include:

- The General Secretariat for Adult Education (responsible for literacy, some courses of vocational training, special programmes, etc.).
- The General Secretariat for Youth (responsible for various youth issues like social participation, leisure, alternative tourism, labour relations, ecology, etc.).

DECENTRALISATION

A major role in the administration of Greek education is played by the Directorates of Education at the Prefecture (*Nomo*) level. There are 54 Directorates of Primary Education and 149 Local Bureaux, as well as 54 Directorates of Secondary Education (general, technical and vocational) along with their respective 65 Local Bureaux. The Senior Education Officials of these authorities are responsible for the administration and operation of the schools under their jurisdiction.

At the same time, the School Counsellors appointed by these authorities
26 are responsible for providing guidance for teaching practises. They assess the

performance of teachers and arrange their further training, as well as encourage educational research. There are approximately 300 Counsellors for elementary education, 20 for pre-school education, 260 for secondary education and eight for special education.

In each Prefecture Council (since the 1981-86 educational reforms) there is a Prefecture Committee for Education, which consists of the Prefect (as Chairman), the School Counsellors, and representatives from the educational authorities of the Prefecture and the local authorities, etc. The Prefecture Committee submits its proposals to the Prefecture Council and the Prefect (*Nomarchis).* These proposals are based on the proposals of the municipal and community councils and are concerned with such issues as: merging of schools, distribution of capital to the Organisation of Local Authorities (OTA), repair and maintenance of school buildings, operation of schools, organisation of libraries, adult education, and in general, issues related to the operation of the Prefecture's public schools.

In every municipality (or community), a Municipal Education Committee (Figure 1.3) has been established (Reform Law 1566/85, paragraph 50) which comprises representatives from the local municipality, the Parents' Union, two Principals from primary and secondary education (respectively), the Teachers' Union, and the production sectors. This committee makes proposals to the local municipal authorities on: the better organisation and operation of primary and secondary schools; the distribution of capital for the school's operational expenditure; and the establishment, closing-down or merging of school units. This Committee is also responsible for the building of schools, the repair and maintenance of school buildings, and the operation the School Committees.

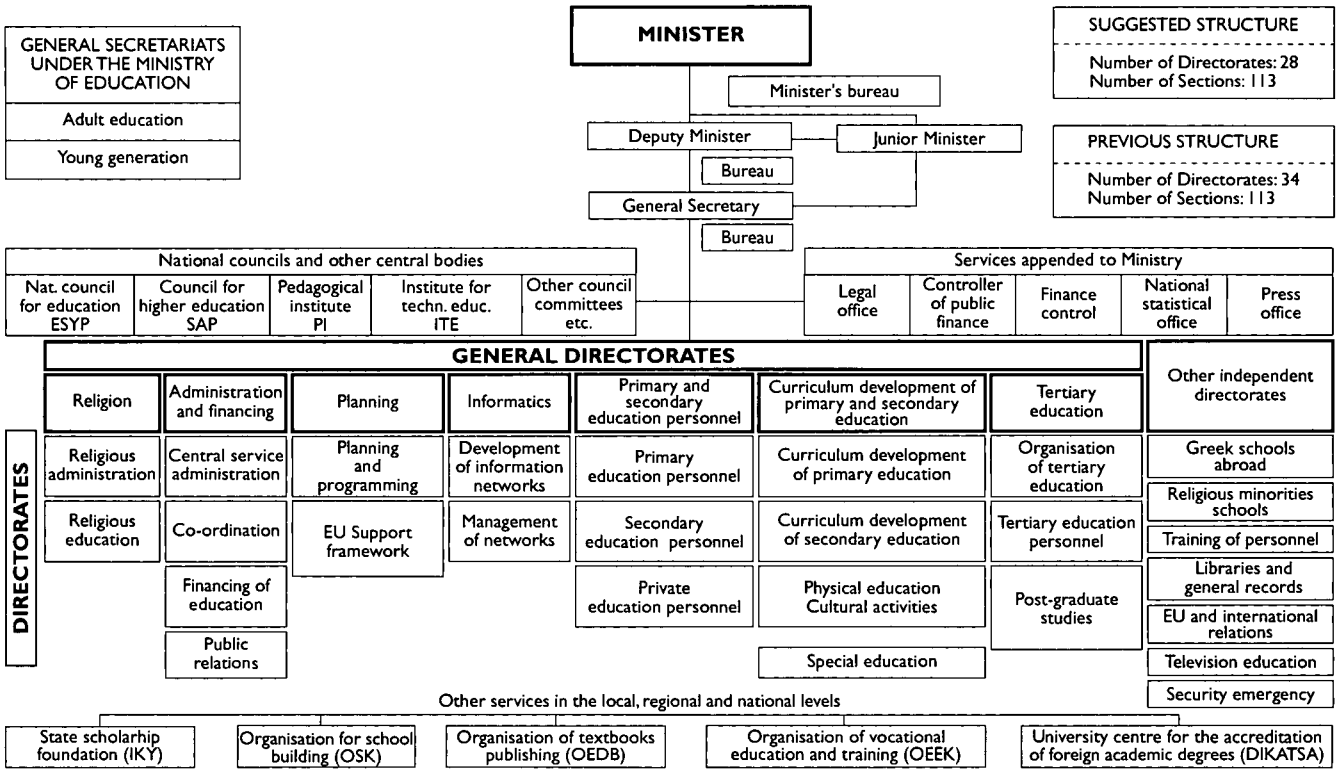
The proposals of this Municipal Education Committee are submitted to the Prefecture Council and are made known to the Prefecture Education Committee.

The same Law 1566/85 also allowed the establishment of a School Council and a School Committee in all public schools.

The School Council operates in every school and consists of: the Teachers' Association; the members of the Parents' Association Governing Board; and the local authorities representative in the School Committee. In the Secondary Education School Councils, representatives from the school community also participate. The Council's responsibility is the satisfactory operation of the school, the setting-up of communication between the teaching-staff and the pupils' families, and care for the health conditions of the school environment. The Council is chaired by the School Principal.

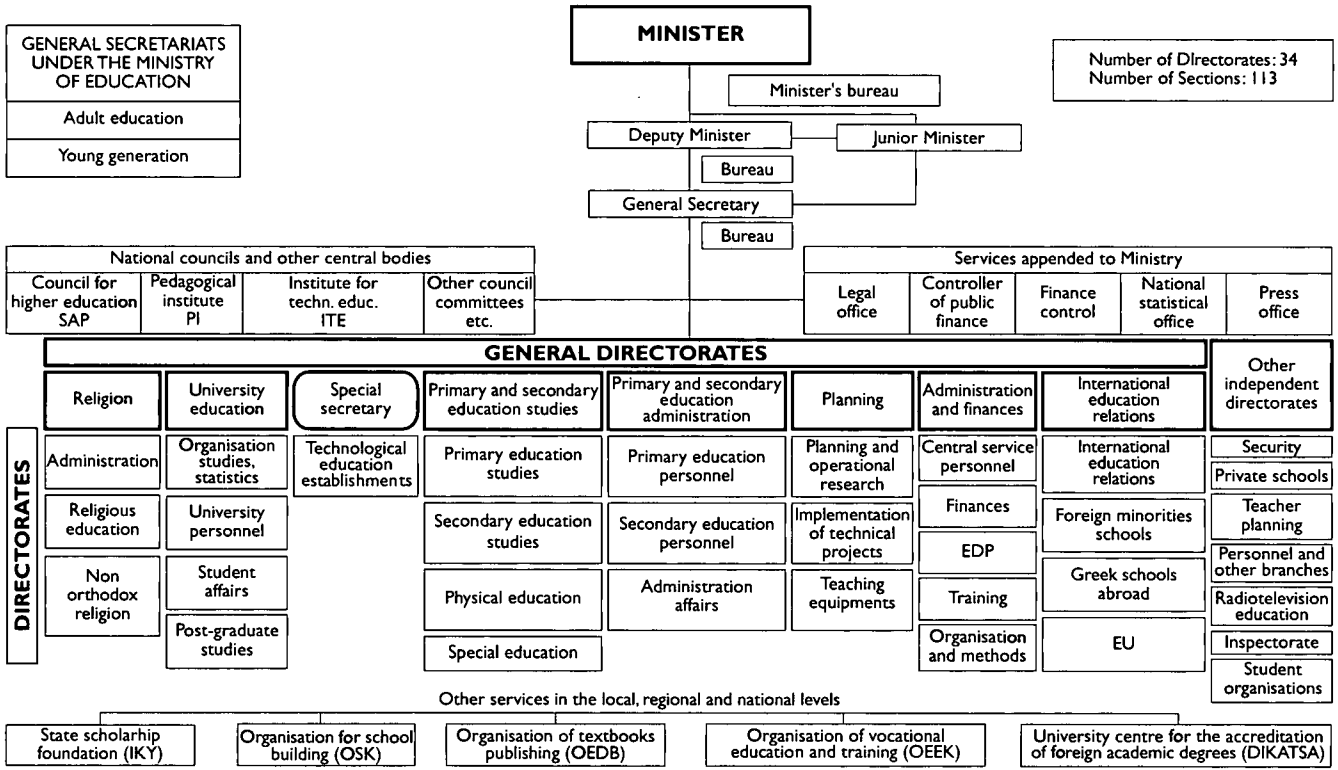
The School Committee, on the other hand, consists of representatives from the municipality, from the Parents' Association, from the Pupils' Communities (in the case of secondary education) and the School Principal. The Committee manages the operational expenditure, forwards other sources of financing to the appropriate

◆ Figure 1.4. ***Suggested structure for the central service of the Ministry of Education***



Source: Ministry of Education.

◆ Figure I.5. ***Existing structure of the central service of the Ministry of Education***
(January 1995)



Source: Ministry of Education.

authorities, commissions the management of the school canteen, and in general, is responsible for the necessary provisions for the school's operation.

A general conclusion concerning the above structure is that there are two lines of administration: one is strictly influenced by the MoE (Ministry – Directorate of Education at Prefecture Level – Local Bureau – School Principal), while the other is more mixed in its involvement (Prefecture/Municipal/School Committee, School Council, etc.). There is a certain division of responsibilities (*e.g.* the local authorities are more concerned with financial affairs, while educational matters are left to the educational authorities), which occasionally creates some overlapping of activities. Without wanting to oversimplify the situation (although the present level of efficiency of the "decentralised" services is far from the desired one), if one considers the deficiencies in staffing, lack of resources, lack of experience and the insufficient guidance from the MoE, the results, so far, are not negligible.

It is claimed (Soumelis, 1993) however, that such organisational problems are apparent in all EU educational systems in a transition phase from a centralised system to a decentralised one. Nevertheless, better co-ordination in the organisation of such matters as outlined above, is the aim for the future.

CENTRAL INFORMATION AND STATISTICS NETWORK

In Greece, the official responsibility for the collection of statistical data lies with the National Statistical Service (ESYE). Thus, all educational data (excluding specialised surveys) refer to the above agency (which has a specific service located in the Central Service of the MoE).

However, due to lack of resources, this service has gradually fallen behind in the provision of data. The most recent edition, the "Statistics of Education 1984-85", lags ten years behind present realities, even though data is still collected annually! Such data is often available in computer printout sheets and included in international surveys (*e.g.* the UOC questionnaires).

The above situation was the main reason why the MoE developed its own statistical unit (the Operational Research and Statistics Section) which undertakes the collection of quantitative and qualitative information annually on all levels and categories of education. Nevertheless, due to either insufficient staffing and resources, or lack of proper co-ordination of activities within the MoE, other services have also conducted general or specialised data-collection surveys. This has created an extra work-load in the schools, as well as a host of over-lapping collections of data and waste of resources (human, financial, technical) through the duplication of tasks.

From research (Kafetzopoulos and Boutos, 1989) carried out on the kind of data collected annually from schools and local educational authorities, it was found that, for example, in the First Bureau of the Athens Primary Schools, at least twelve

surveys had reached them from various services (*e.g.* three to four from the MoE, the Athens Municipality, OSK, the National Statistical Service, etc.) and almost half of them were addressed individually to all schools of the area.

This problematic situation results in the parallel production of similar figures (about enrolments for instance) which must be used only in accordance with their date of collection, the exact variables they refer to, and their particular sources.

There is a general feeling that this unacceptable situation should be radically changed. Some efforts have been made towards a gradual merging of at least similar questions in common questionnaires, but none of them have been implemented due to the lack of co-ordination between services and agencies (not excluding those within the same administrative framework, like the MoE). The IIEP (International Institute for Educational Planning) experts who counselled the MoE on the creation of an integrated comprehensive and modern information base (Lourie, 1985) have recommended that the complete co-ordination of all statistical censuses and surveys on education be delegated to the MoE's Section on Operational Research, and that steps be taken towards the circulation of only one questionnaire for the annual collection of educational data.

Unfortunately, it is obvious that the above situation has deteriorated, rather than improved, with additional surveys from more services, and more students or researchers collecting figures for various reasons.

In conclusion, given on the one hand, the ever-increasing need for the Ministry to use statistical evidence to support policy decision, and on the other, the existing problematic situation in information gathering, it is imperative that steps are taken to create a modern, comprehensive and efficient information base, facilitated by new technologies which will provide both domestic and international users (*e.g.* EU, OECD, UNESCO) with relevant statistics and indicators. In this respect, discussions have already taken place between the MoE and ESYE for the formation of a Committee for the co-ordination of statistical information and questionnaires.

COLLABORATION WITH INTERNATIONAL ORGANISATIONS

Greece as an industrialised European country, is a member of all major organisations and consequently, the MoE has a long, and fairly successful participation in various programmes.

Starting with UNESCO, the MoE, through the Directorate for International Educational Relations, participates in the bi-annual conferences, as well as in the regular meetings.

The Ministry also participates (or appoints delegates) in various other programmes, *e.g.* CODIESE, Associated Schools, SEMET, Adult Education, CERES, etc. The MoE moreover, has established ties with the International Institute for Educa-

tional Planning (which operates under the auspices of UNESCO). Within the framework of this co-operation, the Ministry has conducted staff training and has participated in seminars (both in Paris and in Athens). Other activities have included: a meeting in 1985, in Athens, regarding the establishment of a modern Information and Statistics Network, and a visit of 60 international education officers to Greece (between April 1 to 10, 1987) who examined such aspects as education and employment, relations between the MoE and the regions in the planning of education, emergency planning and adult education (IIEP, 1987).

Regarding the OECD, the MoE participates in the Education Committee and in the Centre for Educational Research and Innovation (CERI), as well as in other programmes such as: INES (International Indicators of Education Systems), PEB (Programme on Educational Building), Standards for education, VOTEC (Vocational and Technical Education and Training). Within the Decentralised Programme for Educational Building a very successful seminar in Northern Greece (Chalkidiki 12-16 October, 1987) was organised on the management of school-time. Another seminar, on higher education infrastructure, took place in Crete in the autumn 1995.

Greece has also been a member of the Council of Europe since 1949. The MoE has permanent representatives in the Council for Cultural Co-operation and in the Education Committee. It also participates in some other sub-programmes, such as education and culture, education of minorities, anti-racial discrimination campaigns, patterns of orthodoxy, etc. The Council of Europe provides grants for studies in the Institute for the Aemos Peninsula Studies, etc. Moreover, the Ministry has received (for OSK) a loan of 31 billion drachmas for construction and repair of school buildings.

Last but not least, since Greece's regular membership in the European Union (1981), the MoE and its various sectors have been involved in a host of activities and programmes. The limits of this report do not allow us to describe all of these activities in detail, but it should suffice to mention that the MoE has representatives in all EU programmes and committees such as: the Education Committee, ERASMUS, TEMPUS, COMMETT, Lingua, EURYDICE, distance learning, environmental education, illiteracy, equal opportunities, etc., with successful and active participation.

It is also worth mentioning the inclusion of Greece in the Second Community Support Framework (Human Resources) and the involvement of the MoE along with the Ministry for Employment in the "Education and Initial Vocational Training" Programme aimed at financing the updating and introduction of innovations in Greek education and its administration (such as the further development of the Integrated Lyceum, the development of school and university libraries, education links with the labour market, the modernisation of the MoE Services, etc.).

2

INTRODUCTION TO THE GREEK EDUCATION SYSTEM

A BRIEF HISTORICAL SKETCH OF EDUCATION IN GREECE

Basic characteristics of the current education system

Education is the constitutionally designated responsibility of the State and is provided free at all levels of the system from pre-school to university. A relatively small private school sector exists, but only State universities and institutions provide tertiary level education and grant degrees. The Greek education system is very centralised; both in terms of organisation and administration. With regard to schooling principles and practices, there is a national curriculum, uniform school timetables and approved textbooks that are compulsory in the private sector as well.

Before looking at the current education scene in detail, a brief outline of the significant reforms and structural changes which have marked Greek education in the post-war period, is presented below. The structure of the formal education system is also presented in Figure 2.1.

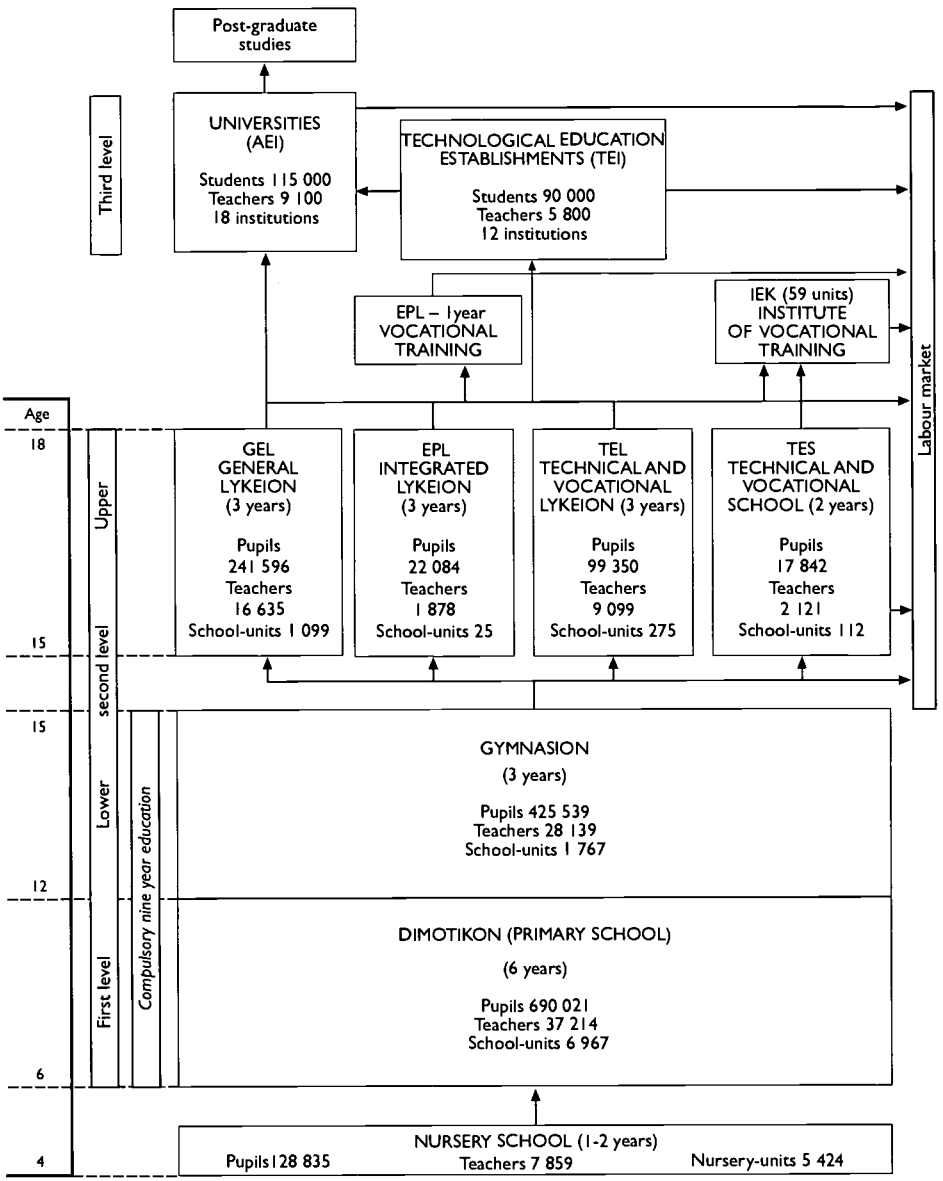
Developments during the latter half of this century

In the 1950s, the education system comprised a six-year compulsory primary school; a six-year secondary school or *Gymnasium* that had a profound humanistic orientation; and the tertiary level that included the universities and very few tertiary schools of general education, such as the Teacher Training and the Physical Education Academies.

Towards the end of the 1950s, as the emphasis on modernisation and planned economic development intensified, a comprehensive report on the state of education was drafted and several reforms legislated that sought to expand the technical-vocational sector of education.[2]

The secondary school level was divided into two three-year stages. The first three-grades constituted the lower stage and emphasised general and humanistic education. The upper stage was differentiated and divided into separate types of

◆ Figure 2.1. ***Structure of the formal Greek education system***



Source: Greek Ministry of Education, DIPEE, Enrolments 1993-1994.

Gymnasia. The two major types were the Practical (scientific) and the Classical (literary), both of which were academic streams, primarily preparing students for university entrance. A parallel system of technical-vocational schools under the MoE was created, covering both upper and lower secondary stages.

The educational reforms of 1964 (a milestone reform but short-lived), further developed the above and extended the reform agenda to fundamental and comprehensive changes in the system that would promote educational equality and economic growth.[3] Free education was extended to the tertiary level, entrance examinations to secondary level were abolished, and basic changes were made in the examination system for university entrance, with a unified national examination system replacing separate examinations by department. The previous two stages of general secondary schooling, were transformed into two separate schools: the non-selective lower secondary Gymnasium – which exists today – and the upper secondary *Lyceum*. The new Lyceum comprised of practical and classical streams and it was no longer divided into distinct types of schools.

One of the most significant changes of this period (since it touched on one of the most acute and hotly contested issues of the century and therefore stirred great debate), was that "demotic" language (the popular form of Greek language), officially replaced the purist form of *katharevousa* as the medium of instruction. Another aspect of this curricular reform was that classical Greek literature was to be taught in modern translation in the lower secondary school and the systematic study of ancient Greek initiated at the Lyceum level.

With the advent of the military junta in 1967 nearly all these measures were withdrawn, with the language issue first on the agenda. During this period, legislation was also passed that set up a new tertiary level of technical-vocational education, that would, on the one hand, supply vitally needed upper-level technicians, and on the other, act as a breakwater against the continuously rising level of demand for university entrance. Five such centres (KATEE) had been established by 1974.

The year 1974 marks the return to democratic government. Educational legislation was enacted thereafter, which essentially restored most of the reforms of the 1964 period. During this period, secondary (general) and secondary (vocational) education was reorganised in order to promote greater parity of esteem between the two sectors. Specific measures included:

- the extension of compulsory education from six to nine years;
- the establishment of the lower secondary Gymnasium as the common school of general education (grades 7 to 9) which meant that:
  - lower-secondary vocational schools were abolished; and

- entrance examinations from primary to lower secondary level were also abolished;

– the re-organisation of post-compulsory secondary education (grades 10 to 12) into two equivalent streams or Lycea, the General Lyceum and the Technical-Vocational Lyceum. General Lyceum graduates could sit for entry examinations into all types of higher education institutes, whereas, Technical-Vocational Lyceum graduates could not compete for entry into the universities;

– the re-introduction of demotic language at all levels, and classics in modern translation, taught as part of the curriculum at the lower secondary school level.

From 1981, when the socialist government first came into power in Greece, reforms focused more on internal changes to the education system, aiming more on democratisation than on major structural issues. Salient changes in the system established during the 1980s were:

– automatic promotion throughout the primary education level;

– abandonment of entrance examinations from the lower secondary to the upper secondary school;

– postponement of stream selection to the final year of general lyceum (grade 12) where students now had four curricular areas to choose from rather than the two as was previously the case;

– at the upper-secondary level, a new type of comprehensive lyceum was established in 1984: the experimental *Eniaio Polykladiko Lykeio* (EPL), or Integrated Lyceum, which sought to bridge the gap between general and technical education. The EPL continues today to enrol a relatively small proportion of student population in spite of social demand and pressure;

– various measures to increase participation in school decision-making processes such as the establishment of student councils and the further development of the responsibilities of the teachers' councils. It should be noted however, that while Law 1566/85 made broad provision for decentralised decision-making, few of these measures were ever implemented through accompanying decrees.

During this period, priority was given to the reform of higher education. The KATEEs, which were exhibiting severe problems related to their rapid growth, were reorganised into their current form of Technological Education Institutions (TEIs); and for the first time, the universities became the object of reform in the comprehensive framework of Law 1268/82. This law sought to expand the basis of decision-making in the universities and to introduce new divisions such as graduate schools. During this period, education departments (for pre-school and primary level teach-

ers) were set up in the universities and the Teacher Training Academies were gradually phased out.

In this first half of the 1990s, a new system of post-secondary vocational training was established that emphasises flexibility and co-operation with the social partners. This system incorporates (subject to accreditation), the private Centres of Free Studies which had not previously been regulated. Both public and private Institutes of Vocational Training (IEKs: *Instituta Epagelmatikis Katartisis*), offer relatively short-term training courses and seek to provide a viable outlet to the thousands of lyceum graduates who do not enter tertiary education. Despite the shifts between emphases on equity or efficiency, a constant dilemma for policy-makers, throughout the whole of the period of this historical overview, has been how to respond to the high level of demand for higher education.

The 1990s, however, have brought to the fore-front another major concern for educational policy. The quality of education at all levels has become a critical issue and the object of continuous discussion. In the 1990s, moreover, fewer and more limited instances of reform and counter-reforms are implemented by successive governments (Kassotakis and Lambrakis-Paganos, 1993, p. 102), and there is greater consensus on defining the current problems of education (though priorities and approaches to their solution vary) such as: under-resourced schools within a general framework of financial constraints in the public sector; an over-burdened and often out-dated curriculum which places an emphasis on memorisation rather than critical-thinking; the number of teachers waiting for placement (often as long as ten years); a general lyceum which no longer functions as an independent and self-contained school but has been transformed into a preparatory level, like a waiting vestibule, for the universities; the mushrooming of private cramming-schools and private lessons that prepare candidates for tertiary exams; and the increasing numbers of students delaying graduation, not to mention the high level of unemployment among those who do graduate. These issues and problems constitute a demanding agenda for today's policy-makers.

The following sections provide some background on the issues outlined above. The general education level of the population is looked at, as well as some of the quantitative dimensions of the growth of education during the last decades. Finally, Chapter 6 explores the distributive and equity aspects of the contemporary educational scene.

EDUCATIONAL LEVEL OF THE POPULATION AND LABOUR FORCE PARTICIPATION

Currently, over a tenth of the population aged 25 to 64 years holds a tertiary education degree; about a quarter are secondary school graduates; and around half are at least primary school graduates (Table 2.1). Those with no educational creden-

Table 2.1. **Educational attainment of the population aged 25 to 64 in 1991, by sex, and number of women per 100 men at each educational level**

Educational level	Total population		Men	Women	Women per 100 men
	Number (in thousands)	Percentage	Percentage		
Tertiary	663	12.5	15.0	10.0	69
Upper secondary	1 290	24.2	25.4	23.1	93
Lower secondary	367	6.9	7.7	6.1	81
Primary	2 311	43.4	42.3	44.5	108
Less than primary [1]	692	13.0	9.6	16.3	174

1. Includes the following categories: "Attended primary school", "No schooling but literate" and "No schooling and illiterate".

Source: Estimated from ESYE, 1991 Census (Unpublished Data: Population 10+ by Educational Level, Sex, Age and Area).

tials, that is, with less than primary schooling, constitute about the remaining tenth of the population.

More men than women hold tertiary education degrees (69 women for every 100 men), but the proportions are rather equal for other levels. The significant exception is the category, "less than primary schooling", where women far outnumber men (174 women for every 100 men); indeed, women comprise 63 per cent of this group with no educational credentials.[4]

Overall, however, the educational level of the general population has risen considerably in comparison with the period covered by the last country-review. The proportion of graduates of tertiary education has quadrupled from 1971, secondary education graduates have doubled, and the number with less than primary education has been significantly reduced, from 37 per cent in 1971 to 13 per cent in 1991.[5]

Illiteracy rates have also fallen sharply. Whereas in 1971, 14 per cent of the population over 10 years of age was illiterate, in 1991 the figure is 7 per cent. And while only 1 per cent of the under 45-year-olds designated themselves as illiterate in 1991; it should be noted that this translates to around 60 000 individuals.

Participants in the labour force constituted 56 per cent of the population aged 14 to 64 years in 1991 (Table 2.2). The rate for men was 78 per cent and for women, 35 per cent. Labour force participation for women peaks at 55 per cent for those 25 to 29 years of age in 1991.[6] Notably primary and secondary level teachers accounted for about 5.4 per cent of all working women.[7]

Official unemployment in 1991 stood at 8 per cent but was higher among women (Table 2.2) and highest among youths 15 to 19 years of age (33 per cent) and 20 to 24 years of age (23 per cent) (see note 4).

Table 2.2. **Participation rates in the labour force and unemployment for men and women aged 14+ to 64 in 1991**

Population	Economically active		Unemployed	
	Number (in thousands)	Percent	Number (in thousands)	Percent
Men	2 581	77.8[1]	163	6.3[2]
Women	1 217	35.2[1]	147	12.1[2]
Total	3 798	56.1	310	8.2

1. Ratio of economically active men or women to total population of men or women 14+ to 64 years of age.
2. Ratio of number of unemployed men or women to number of economically active men or women 14+ to 64 years of age.

Source: Estimated from ESYE, 1991 Census (Unpublished Data: Economically Active and Inactive Population by Sex, Age and Urbanisation).

PARTICIPATION IN EDUCATION

Expansion of enrolments

The above improvement in the level of educational attainment of the population is related to the significant expansion of education during the last decades. In Table 2.3, the growth of education is charted over the period 1970 to 1994. The enrolment figures cover both public and private school enrolments. The proportion of private school students in 1992 was around 5 per cent for most levels of education (4 per cent pre-school, 7 per cent primary, 4 per cent for secondary general) but reached 16 per cent for upper secondary technical-vocational education.[8]

Table 2.3 shows that in the 1980s and 1990s, pre-school and primary school enrolments were shrinking. This negative trend has accelerated from 1989 to 1994, reflecting the continuously decreasing birth rate.

Secondary education, on the other hand, expanded consistently from 1970 to 1994. That trend seems to be slowing-down in the 1990s (4 per cent versus 14 per cent). Within public secondary education, lower-secondary enrolments have been rather stable, while upper-secondary enrolments grew at higher rates. More specifically, general secondary education has currently stabilised after initial growth from 1975 to 1985 while technical-vocational education continues to expand (see Table 2.4).

Higher education enrolments have grown and indicate the highest rates of all, especially during the 1980s. This trend however, does not simply reflect an expansion of entrants to higher education. Since 1984, there has been an increase in the number of registered students not making "normal progress", that is, passing semesters without delay (see MoE, 1994, Table 9). For example, of all registered students in the 1991-92 academic year, 56 per cent were making "normal progress"

Table 2.3. **Student enrolment (public and private schools), 1970 to 1994, and percentage change by level**

Level	Student enrolment			
	1970-71	1980-81	1989-90	1993-94
Pre-school [1]	87 087	145 924	141 576	134 332
Primary	919 984	900 641	846 498	744 542
Secondary	555 709	740 058	845 723	881 280
Tertiary [2]	85 776	121 116	267 587	[3]
All levels	1 648 556	1 907 739	2 101 384	–
	Percentage change			
	1980/70	1989/80	1993/89	
Pre-school	67	–3	–5	
Primary	–2	–6	–12	
Secondary	33	14	4	
Tertiary	41	121	–	
All levels	16	10	–	

1. Includes only Ministry of Education Pre-school Centres and not those under other authorities such as the Ministry of Health and Social Welfare. Thus the drop in pre-school enrolments is perhaps not as marked as shown in the table.
2. Refers to total number of students enrolled in tertiary education (registered) and not to number of active students only.
3. 1993-94 data is not available. However, in 1991-92 there were 294 134 students enrolled in tertiary education, see source (c). This represents an increase of 10 per cent from 1989-90.

Sources:
a) Figures for 1970 to 1989 are from Skouras-Varnava *et al.* (1993).
b) For 1993-1994, from Table IV in ESYE (1994).
c) Figures for tertiary education 1989 are from Ministry of Education (1994, pp. 68 and 81).

Table 2.4. **Participation rates in education by level and sex, 1989-90**

Level	Total number of students	Size age cohort[1]	Ratio of enrolments to age cohort		
			Total	Girls	Boys
Pre-primary	141 756	245 199	57.8	58.0	57.5
Primary	846 498	872 428	97.0	97.0	97.1
Secondary	845 723	911 465	92.7	90.7	94.6

1. Age cohorts 4-5 year-olds, 6-11 year-olds and 12-17 year-olds.
Sources: Estimated from Skouras-Varnava *et al.* (1993, p. 6) and from ESYE, 1991 Census (Unpublished Data: Population by Age and Sex).

Table 2.5. **Student enrolment and teaching force for public secondary education from 1970 to 1994**

Type	1970-71		1975-76		1980-81		1985-86	
	Pupils	Teachers	Pupils	Teachers	Pupils	Teachers	Pupils	Teachers
	(in thousands)							
General	396.9	11.4	486.7	17.2	612.8	30.9	677.4	37.0
• Gymnasia					413.8	19.2	413.3	21.6
• General Lycea					199.0	11.6	264.1[1]	15.5
Tech.-Vocational	39.7	1.0	71.8	2.5	81.9	3.9	98.3	7.8

Type	1990-91		1993-94		% change 85/75		% change 93/85	
	Pupils	Teachers	Pupils	Teachers	Pupils	Teachers	Pupils	Teachers
	(in thousands)				(in percentage)			
General	686.2	46.7	689.2	46.7	39.2	115.5	1.7	26.0
• Gymnasia	424.7	27.0	425.5	28.1			2.9	30.6
• General Lycea	261.5[1]	19.7	263.7[1]	18.5			–0.1	19.7
Tech.-Vocational	98.1	9.9	136.0	9.9	36.8	212.6	38.3	27.0

1. Figures for General Lycea include enrolment at Comprehensive Lycea.
Source: Ministry of Education (1994, Tables 5 to 7).

toward their degrees (*op. cit.*, p. 50). Thus, the picture of expanding tertiary enrolment in the 1980s is somewhat misleading since it is obvious that a greater number of tertiary students are delaying graduation. A variety of institutional factors may be responsible for this delay. However, the "warehousing effect" (Walters, 1986) – with youths remaining in school or university when their unemployment chances are high – seems to be obvious.

Participation rates

Youngsters attending public kindergartens (that is, those supervised by the MoE) constituted 57.8 per cent of the population of 4 and 5-year-olds in the 1989-90 school year. Primary school participation rates stood at 97 per cent for 6 to 11-year-olds; while secondary school enrolment figures represented 93 per cent of 12 to 17-year-olds (Table 2.5).

Participation rates for boys and girls are equal at pre-school and primary levels. At the secondary level, however, the participation rate is 95 per cent for boys and 91 per cent for girls. Participation rates at the secondary level might actually be somewhat lower since repeaters, who would be older than 17, are included in the

enrolment figures.[9] (Repeaters' rates at primary level are extremely low and would not effect the estimates.)

At the tertiary education level, the proportion of new entrants (42 187) to the 18-year-old age cohort was 28.1 per cent in 1992, while tertiary enrolment figures accounted for 47.4 per cent of the 18 to 21-year-old-age cohort.[10]

Thus it seems that, overall, Greece currently has quite high participation rates at all levels of education and that these rates are more or less equal between boys and girls. However, the exact dimensions of the situation are clouded by the nature of the data which *i)* does not identify repeaters within secondary education; and *ii)* refers to the national level, so that differences in regional participation rates are not evident. Chapter 6 looks at such differences by examining equity aspects of the distribution of educational opportunities in Greece.

STRUCTURE OF THE EDUCATION SYSTEM

BASIC CHARACTERISTICS

Education in Greece is the responsibility of the State. It is offered completely free by State educational institutions at all levels.

The Greek primary and secondary educational system has been from the beginning very centralised. It has also inflicted a rather latent uniformity as far as the curriculum, the syllabi, the school-texts, the appointment and the promotion of teachers, as well as the funding and the administration of the schools, are concerned. The MoE with its regional agents, is the controlling authority, overseeing education throughout the country. Efforts aiming both to decentralise the system and to involve social agencies, students and parent organisations, have taken place in the context of recent reforms (1985) but the measures taken have not reached satisfactory results yet.

Greek education, especially at secondary level, has to a great extent been oriented towards general education with emphasis on humanities and preparing students to enter higher institutions rather than helping them to acquire marketable skills. Technical and vocational education was not well-developed until the middle 1970s. Since then, efforts have been made to renew it. But even after this period it has undergone slow progress. Only 12.4 per cent of secondary school students, were enrolled in technical and vocational education in 1990-91. A consequence of this structure of the secondary education was the unidimensional relation between secondary and higher education. For most secondary school students the only way to acquire professional training was to enter an institution of higher education.

On the other hand, the openness and flexibility of the social structure in Greece, the existence of a free education at all levels and also other factors have favoured the orientation of secondary students of all social classes towards higher education. So, great demands for higher education have been created, which have been reinforced by the high social status and the social privileges university graduates are enjoying. However, the limited educational efficiency of the existing institutions and the inability of the economy of the country to absorb a large number of highly qualified workers have never managed to entirely respond to the social demand of higher education.

The school year extends from the beginning of September to the first half of June. The duration of schoolwork is five days per week. Primary school pupils spend about five hours per day in school and secondary school pupils about 6-7 hours daily.

In the big cities, a large number of schools operate on two shifts (morning and/or afternoon) due to lack of school buildings. As a consequence of this, many important educational and functional problems are created in these schools.

The structure of primary, secondary and tertiary education

Public education, which is fully supported and controlled by the State, is organised vertically into three levels (see Diagram on page 45): primary, secondary and tertiary.

PRIMARY EDUCATION

Kindergarten

The aim of kindergarten is to help children's physical, emotional, social and mental development, within the framework of the broader aims of the primary and secondary education.

Kindergartens, where pre-school education is provided, operate as independent units. Attendance is not obligatory, but the percentage of participation is continuously increasing.

The duration of this level of education is two years. Children who are 3½ years old by the 1st of October are accepted. Kindergarten education could be obligatory if both the Minister of Education and the Minister of Health and Social Welfare issued a joint resolution according to the needs of the region.

The kindergarten has one class of 7 to 30 children. If there are more than 31 to 60 applicants, the kindergarten can form more than two classes. For Kindergartens operating in nursery schools, more than two classes can function (see Table 3.1).

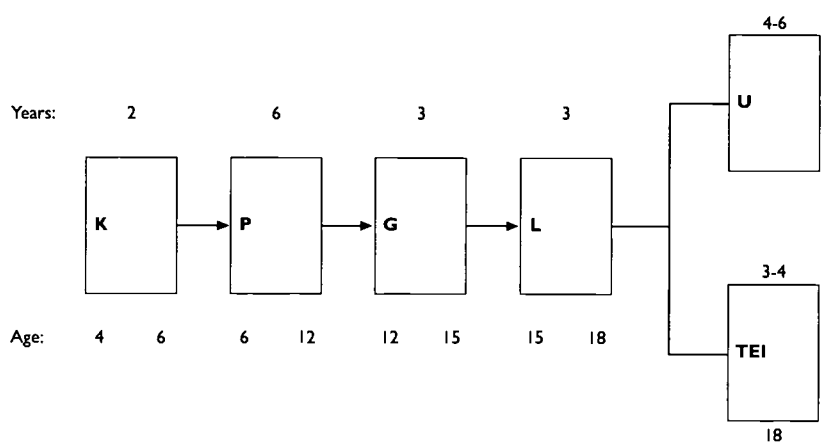
Elementary school

The aim of the elementary school is the physical and mental development of the students within the framework of the general aims and objectives of primary and secondary education. More specifically, it aims to help the students obtain the essential knowledge which will gradually enable them to develop critical thinking skills. The main goal is the development of the language skills of speaking and writing.

◆ Diagram. ***Structure of primary, secondary and tertiary education***

	Levels	Institutions
Primary	Pre-primary	= Kindergarten *(Nepiagogeion)* usually from 4-6 years-old.
	Elementary	= School *(Demotiko scholeio)* six years (6-12)
Secondary	Lewer	= Three-year Gymnasium (12-15)
	Upper	= Three-year Lyceum (15-18)
Tertiary	University	= University *(Panepistimio)* and highest school *(Anotati Scholi)* 4-6 years duration (18+)
	Non-university	

Schematically, the system of public education can be presented as follows:



K: kindergarten (ages 4-6)
P: Primary school (6 years, ages 6-12)
G: Gymnasium (3 years, ages 12-15)
L: Lyceum (3 years, ages 15-18)
U: University (4-6 years, ages 18+)
TEI: Technological Education Institutions (3-4 years, ages 18+)

Source: Ministry of Education.

Table 3.1. **Statistics for pre-school education, 1992-93**

	Schools	Teachers	Pupils
Total	5 550	7 999	134 957
Public sector	5 409	7 743	128 940
Private sector	141	256	6 017
Private sector (as a percentage of total)	3.0	3.2	4.4

Source: Press Bulletin for the Primary and Secondary Education (1992-1993), National Statistical Service.

Attendance at elementary school is obligatory. There are six grades at elementary level. Children of 5½ years of age (by the 1st of October) are accepted to the first grade.

According to a recent law, from the 1995-96 school year, only children who have completed their 6th year by the 31st of December, can enrol in the first grade.

The upper limit of students per class is 25 children for single or two-post schools, and 30 students for schools of up to 12 classes. One teacher corresponds always to every class.

The students who finish the elementary school are given a certificate which allows them to enrol in the Gymnasium, which is the lower level of secondary education (see Table 3.2).

It must be noted that there has been a serious effort to decrease the number of single-post schools since 1990. There are such schools on the islands of the Greek archipelago and in isolated mountainous villages. Nowadays, there is an effort to decrease the number of single-post schools. The local authorities, in co-operation with the State (which has financial responsibility), are trying to develop re-allocation solutions so that the pupils of such schools may be transported to bigger, properly staffed and better-equipped schools of the region.

Table 3.2. **Statistics for the elementary school, 1992-93**

	Schools	Teachers	Pupils
Total	7 520	38 850	780 772
Public sector	7 116	36 363	725 278
Private sector	404	2 487	55 494

Source: Press Bulletin for the Primary and Secondary Education (1992-1993), National Statistical Service.

Number of students: situation and trends

There is an important decrease in the number of students of primary-school age in the last two decades. This is contradictory to other levels of education in Greece where there is no decrease. The reason for this is the low birth rate in Greece. More specifically, during the last decade, and until 1993, there have been substantial changes in age composition based on the total of the estimated population. The proportion of children (0-14 years of age) has dropped from 22 per cent in 1982 to 17.1 per cent in 1993 and in absolute figures, the age group of children (0-14 years of age) shows a decrease of 14 per cent in 1993 as compared with 1982 (Table 3.3).

The increase in the secondary education level is due to an overwhelming demand for education.

There is no important difference between the number of boys and the number of girls attending the primary education.

It seems that teaching is still in great demand in Greece, since the number of teachers continually increases and there is a long waiting-list for appointment (see Table 3.4).

Table 3.3. **Number of pupils in primary education**

	1970-71	1980-81	1989-90
Pre-primary	87 087	145 294	141 756
Elementary	919 984	900 641	846 498
Total	1 007 071	1 045 935	988 254

Source: Skouras-Varnava *et al.* (1993).

Table 3.4. **Number of teachers in primary education**

	1970-71	1980-81	1989-90
Pre-primary	2 748	6 514	8 035
Elementary	29 681	37 305	38 872
Total	32 429	43 819	46 907

Source: Skouras-Varnava *et al.* (1993).

Table 3.5. **Number of pupils per teacher**

	1970-71	1980-81	1989-90
Pre-school	31.7	22.3	17.8
Primary	31.0	24.1	21.8

Source: Skouras-Varnava *et al.* (1993).

Male teachers are almost non-existent in kindergartens. On the other hand, there is a complete balance in the number of men and women working as teachers in the elementary school.

The important increase in the number of teachers has improved the ratio of the number of pupils per teacher. This fact has positively affected the quality of education. The above mentioned ratio differs from region to region according to the density of population (Table 3.5).

Private sector

Private primary and secondary schools are allowed to operate and do so under the supervision of the MoE. They are obliged to follow the national curriculum.

The size of the private sector in education is not important in the Greek education system. This is probably due to the fact that public education is free.

The reason that the number of private schools has decreased recently, although the absolute number of pupils has remained stable, is that small private schools have ceased to operate due to competition and pupils have enrolled in the bigger private schools. This is why the number of students in private schools has remained practically the same (Table 3.6).

Table 3.6. **Private education**

Percentage

	Schools		Pupils	
	1980	1990	1980	1990
Pre-school	6.8	2.6	9.3	4.0
Primary	5.5	4.9	6.4	6.8

Source: Skouras-Varnava *et al.* (1993).

Minority groups

Although only 3 per cent of the population in Greece belongs to linguistic and cultural minorities, schools have been designed to offer instruction in the native language and culture of these minorities. Public laws 694/77 and 695/75 and Presidential Decree 1024/79 specifically address the education of Muslim children in Greece. According to legislation the Greek government provides a budget and ample facilities for the education of these children. As of 1983 there were 251 primary schools enrolling 12 000 minority students. The classes in these schools were taught by 421 Muslim teachers (Greek nationals), plus 27 temporary instructors who came from Turkey, in these schools the Turkish language and religion are taught. At the secondary level there are schools which offer bilingual instruction, one in Komotini (the Celal-Bayar Lyceum) and two Muslim seminaries in Xanthi. There are plans to open four additional secondary schools in the two cities mentioned above, both located in Thrace. Also, the government intends to establish technical/vocational schools for the Muslim minority, provided there is agreement among the Muslim communities (OECD, 1982). Teachers for minority Muslim children are trained in the Pedagogical Academy of Thessaloniki, in a special programme. In addition to the schools for Muslim children and youth, there are two primary schools for Armenian children in Athens, and there are plans to establish schools to cater for the needs of itinerant Gypsy children.

Since 1980-81 the government has also developed special programmes for the education of children of Greeks with limited proficiency in the language, who have repatriated from other countries, especially from Germany, the United States, Canada, Australia, etc. The objective of these programmes is to "aid the repatriation of youth by integrating them in school and social milieus and in the Greek way of thinking and behaving" (according to OECD, 1982). On average, 5 000 children per year have repatriated from Germany and 4 000 per year from anglophone countries. Two types of programmes were designed for these children: special bilingual classes in the regular schools and out-of-school or "extra-class" bilingual programmes (maintenance programmes).

The first type of programme was designed as compensatory, offering five hours of bilingual instruction per week in the primary schools and three hours per week in the secondary. Instruction is offered in the study of the environment, cultural activities, history, geography, music, etc. This compensatory programme is based on the use of two languages – the official language of the schools (Greek) and the language of the children (German).

Special "reception" classes for the repatriating immigrant children may be formed provided there is a minimum of 10 children who have come from the same country and can operate at the same instructional level. During 1981-82 only 215 students, or 1.8 per cent of the total 13 313 youth who repatriated, were

enrolled in some 16 special classes (six primary and ten secondary, all operating in Macedonia in northern Greece).

The second programme, which is offered through an out-of-school arrangement (maintenance classes), is designed for student groups of no less than three and no more than nine pupils. These students must come from the same country and they must be at the same instructional level. As with the in-school or "integrated" programme, this programme provides primary school instruction in both languages.

SECONDARY EDUCATION

Lower secondary education (Gymnasia)

The Gymnasium constitutes the lower level of secondary education. Attendance at a Gymnasium is compulsory. It last three years and is intended for pupils aged 12 to 15 years.

The purpose of the Gymnasium is to promote the pupils' all-round development in relation to the abilities which they have at this age, and the corresponding demands of life.

Upper secondary education

The upper-cycle of secondary education aims to build the character and personality of the pupils so that they may contribute towards the social, economic and cultural development of the country, along with a guidance for their further studies or career choice.

General Lykeio (GEL)

The curriculum areas, from which the programme of studies in this type of Lyceum are drawn, include: literature, theology, physics, mathematics, and the arts. Pupils must attend school daily for three years and there are 30 teaching hours per week in all three grades. In grade 3, the subjects are divided into A (general education) and B (preparatory studies for AEIs and TEIs).

The Technical-Vocational Lykeio (TEL)

The aim of this Lyceum is to give pupils the necessary technical and vocational knowledge and to enable them develop the corresponding skills, so that after leaving school, they can successfully work in the respective technical or vocational fields. There are 34 hours of tuition per week.

The Integrated Lykeio (EPL)

The Integrated Lykeio (EPL) is a new kind of school (first introduced in 1984) which is qualitatively different from other lycea in that the content of "general education" is much wider It is also adapted to modern life and connected with vocational education and the development of specialised skills. EPL pupils may proceed to tertiary education or follow pre-vocational courses leading to either TEIs or specialisation courses and to the labour market.

Technical-Vocational School (TES)

These are technical schools with a two-year course of study (in the case of day schools), and a three-year course of study (in the case of evening schools).

At the TES, 30 hours of tuition are provided each week in grades 1 and 2, of which six hours cover general subjects (modern Greek, mathematics, physics, foreign language, civil education) and 24 hours cover specialisation subjects and workshop training.

Some of the recent changes in primary and secondary education

In the 1980s, the Greek education system underwent a number of reforms which aimed at its democratisation and adaptation to the socio-economic changes and the new perspectives created by the acceptance of Greece as a full member of the European Community. These changes concern the structure and the administration of education as well as the school curriculum and provisions.

The most important structural changes at the level of primary and secondary education can de described as follows:

- establishment of the Integrated Lycea (EPLs), as described above;
- establishment of special post-secondary centres in order to provide specialised professional training to graduates coming from the EPLs;
- establishment of post-Lycea preparatory centres for higher education which aimed to help those who failed to enter a higher institution and wished to try again. These centres were abolished later;
- establishment of a small number of music schools; and
- abolition of the entrance examinations to all types of Lycea.

With regard to the administration of education, it is important to note that with the introduction of the new law, Law 1566/85 for primary and secondary education, an important step towards the decentralisation of education and mainly the allocation of school grants and the administration of school allowances was taken. This law provides for the participation of local authorities and representatives of social bodies in several educational committees which exist at school level as well as at

regional and national levels. Members of the administrative Council of Parents' Associations in each school participate in School Councils (*Scholika Symvoulia*), which aim to support their school. One parent representative takes part in the School Committee (*Scholiki Epitropi*) responsible for the management of school expenditure and for raising additional resources. A parent representative also participates in the Educational Committees operating in cities and towns, which offer advice to cover expenses of school units, and the opening and closing of schools, as well as the restoration of school buildings. Representatives of pupils from secondary schools also participate in the School Councils and Committees. However, the measures taken towards this end, have not reached satisfactory results. Greek Education still keeps its centralised character to a great extent.

According to the law mentioned above, the school unit is the core of education. The head-teacher is at the top of the hierarchy with the deputy head-teacher and the teaching staff following. The educational institutions operating in every region are administered by educational directorates which are different for each level of education (primary and secondary). The Minister of Education, supported by two undersecretaries, is the top educational authority overseeing education in the country.

The way schools are organised and function and also the way the teaching staff is appointed and promoted, does not differ from school to school. Moreover, the content of the curricula and of the textbooks which are distributed free in state schools, are the same in all schools.

The Pedagogical Institute is responsible for the development of the curricula and the writing of the textbooks. It is also the main advisory body to the MoE and co-ordinates all the in-service teacher training activities. Due to the remarkable decrease of its personnel, its dependency on the public bureaucracy, as well as its "loose" linking with the regional services, it has difficulties in performing the tasks it is assigned.

The teachers are given advice and information concerning educational matters, by counsellors selected among the teacher-population. These teacher-counsellors have fifteen years teaching experience but are selected on a competitive basis. Their position is for three years and is subject to extension.

Furthermore, the law makes provisions for the participation of secondary school pupils in the school administration and also for the development of extra-curricular activities. Two types of school organisations have been developed: *a)* the School Communities and *b)* the School Co-operatives. The former, aims to promote collaboration among pupils, to emphasise freedom of expression, to encourage the free flow of ideas, and all activities which aim at self-development of pupils. It also aims to promote the pupil/parent co-operation in a variety of school and community activities. The latter, are responsible for the organisation of money raising activities at schools.

In reality, the role of pupil organisations in the relation between school, society and the world of work is marginal; it is restricted to the organisation of excursions or festivals and similar activities of minor importance not effecting the internal functioning of the school.

New reforms in the Greek education system of primary and secondary education were made during the period 1990-93 by the conservative government of the New Democracy. Among the most important changes during this period are: *a)* the reorganisation of students and teachers' evaluation; *b)* the creation of a National System for Vocational Education and Training, which comprises a number of public and private institutions (IEK), beyond the formal educational system, where secondary school graduates may follow programmes of professional training; and *c)* the establishment of the Regional Centres for In-service Training of Teachers.

In October 1993 the socialist party of PASOK came again to power. The new government retained, in general, the main political objectives it had set up in the 1980s such as the democratisation of education and its adaptation to the socio-economic, technological and scientific changes. The decentralisation of the administration and the provisions of education, the improvement of its quality and its convergence on the European reality are included among the principal goals of the present educational policy.

The innovation of curricula

The curriculum changes are related to: *a)* the formation of links between schools, especially secondary schools, and productive units, as well as the appropriate preparation of pupils for the adult and working life; *b)* the democratisation of schooling; *c)* the offering of opportunities which aim at the self-development of the pupils.

The nursery and primary school curriculum has been entirely revised since 1981. New subjects have been introduced into the primary school curriculum (*i.e.* environmental studies, health education, civil education). Since 1987-88, the teaching of foreign languages has also been introduced into a great number of primary schools. In the same year, secondary school teachers of arts & crafts and physical education undertook teaching in primary schools. In addition, all primary school textbooks were replaced. Further more, the methodology of teaching and the evaluation of pupils changed.

With regard to the secondary school curricula the major innovations after 1981 are as follows:

- introduction of new subjects into the curriculum (such as technology, computing, other forms of Greek languages, etc.) with corresponding changes of the textbooks;

- introduction of pilot programmes concerning education for the environment, health education and aesthetic education;
- supplementary support to the low-achievers of the Gymnasium;
- introduction of optional courses and educational activities into the curriculum of the Integrated Lycea;
- organisation of creative activities which will take place in the afternoons in some schools.

In 1994-95 great efforts for the innovation of the curriculum have started under the supervision of the Pedagogical Institute. The modernisation of the curriculum content, the partial decentralisation of its elaboration and the replacement of the single textbook for each subject by more than one textbook are some of the characteristics of the future objectives of the above attempts.

Problems and perspectives of primary and secondary education

According to statistical data, the enrolment ratios in primary and secondary education are comparable to those of the most developed countries of the EU. One exception however, is the enrolment figures in the pre-primary schools which is lower. The increase of the number of pre-primary pupils, therefore, must be one of the priorities of the educational reform. Such an increase is necessary in view of the continual increase noticed in the Greek female employment sector.

Compulsory attendance in Greek schools is of smaller duration (nine years) as compared with that reported for the most developed European countries. Further compulsory vocational training for those who complete their education at the age of fifteen is not at all provided.

Despite the educational reforms which have taken place recently, the content of primary and secondary school curricula (as well as the organisation and the function of schools) is still to a great extent academically oriented. Limited practical and technological knowledge is offered to the pupils who follow compulsory education and those who have selected a general lyceum (71 per cent of the post compulsory education students). However, new technology has not been widely introduced in the schools. In addition, the co-operation of schools with enterprises and productive units is limited. Vocational Guidance and Counselling is not well developed. It mainly focuses on the provision of general information about jobs and studies. The lack of specialised personnel and the non-existence of systematic dissemination of information concerning the labour market and the linking of schools with the socio-economic environment are the main problems in this field.

Furthermore, technical and vocational education is not well advanced. The links between technical and vocational schools and the industrial world are not satisfactory. It is difficult therefore, for the technical and vocational school gradu-

ates to find a job relevant to their studies (see Demetropoulos, 1992). It is likely that if technical and vocational education will not be improved, this problem will be greater after 1992 due on one hand, to the expected increase of competition in the free European market and, on the other hand, to the potential changes in Greek industry.

The majority of Greek students follow general secondary schools. The reasons for this massive orientation are: *a)* the low profile of the education offered at the technical and vocational schools; *b)* the difficulties the vocational school graduates have in finding a job; and *c)* more chances for access to the universities (see Fragoudakis, 1979; Kassotakis, 1981). An attempt to increase the number of pupils who follow technical and vocational schools was made with the creation of the Integrated Multi-Branched Lycea in 1984. Unfortunately, the expansion of this type of school has been slow due to other political and economic priorities. Recently, the interest in this type of school has revived. One of the most important objectives of the present government is the expansion of the Integrated Multi-Branched Lyceum and the adaptation of its structure and curriculum to the particular regional, demographic and socio-economic conditions so as to become the main type of Lyceum in Greece.

The number of secondary school graduates who enter the universities correspond to one third of the candidates while the remaining 2/3 are also secondary school graduates of previous years. A great number amongst those who failed to enter a Greek higher-education institution go abroad to receive education – a fact which has negative impacts on Greek society and the economy. In the mid-1980s the number of Greek students abroad represented 17.2 per cent of the total population of Greek higher education, while the respective percentage for the other EEC members varied between 1 per cent and 4.5 per cent.

Most of the above graduates enter the labour market without having any professional training. The saturation of jobs in the public and private sectors enhance their difficulties for finding a job. It is expected that this problem will deteriorate after 1992 unless the existing conditions in education change.

The weaknesses of the educational system cited above decrease the socio-economic efficiency of Greek education, something which does not facilitate the role Greek education must play in the Europe of 2000.

Immediate changes are therefore imperative. Such necessary changes are: *a)* the improvement of the quality of education in schools – especially in technical and vocational schools; *b)* the development of more links between school and work and the enhancement of the emphasis given to the preparation of pupils for working life; *c)* the increase of the number of representatives of regional educational bodies and social agencies in educational planning procedures; *d)* the expansion in the use of new technologies in the schools; *e)* the modernisation of teaching processes;

f) the provision for compulsory supplementary training in the form of part-time courses for those who do not follow their studies after their fifteenth year; *g)* the increase of the number of the Integrated Lycea; *h)* the systematisation of the life-long education and the offer of supplementary training or basic training at any age.

The increase of educational funds will facilitate the completion of the above mentioned changes. The total educational funds, which represented in 1985 2.9 per cent of the national gross product, were the lowest reported within the EU (the average percentage of NGI invested in education in the EU was 5.3 per cent).

TERTIARY EDUCATION

Legislative framework

Overview

Greece has adopted the international model for higher education suggested by UNESCO, thus offering two main types of learning institutions for tertiary education:

- universities and university type institutions;
- non-university type institutions.

Under this classification, universities and Polytechnic Schools (AEI) belong to the first group and offer the highest level of education and related degrees and diplomas.

The second group of institutions, includes mainly the so-called Technological Education Institutions (TEI) as well as various other sectors of study such as Commercial Merchant Marine Studies, Religious Studies, Fine Arts, Dance, and Theatre, etc., offering the appropriate degrees and diplomas.

The existing law, Law 1268/82, which governs the functioning of tertiary education, was introduced by the Socialist (PASOK) Government in 1982. This law was supplemented by Law 1404/83, also by the Socialist Government and amended by Law 2083/92 in 1992, by the Conservative (New Democracy) Government.

Under the 1992 law, studies leading to a first degree last at least four years for the majority of disciplines, five years for engineering studies (Polytechnic Schools) and six years for medical schools. Non-university studies last three years in general, while some majors call for an additional six-month on-the-job practical training.

Presently, there are 18 universities in Greece, eight of which are located in the Athens-Piraeus metropolitan area. There are also 12 Technological Educational Institutions in the country, two of which are in the Athens-Piraeus area. Finally, there are 61 Higher Professional Schools (non-university type), 36 of which are in the Athens-Piraeus area.

It should be noted that there are no private universities or TEIs in Greece. As stipulated by the Greek constitution, higher education is public and can only be offered by the State. Nevertheless, a number of private schools offer courses in post-secondary education but their degrees are not recognised by the Greek state.

Entrance examinations

According to the existing law, the requirement for acceptance into tertiary education is the Lyceum certificate, granted after 12 years of schooling (six primary school, three high school, three Lyceum). Due to restrictions in the number of entrants (as a result of limitations in class rooms, staff, laboratories, etc.), Lyceum graduates wishing to enter higher education institutions, compete in the Panhellenic General Examinations, administered yearly by the Central Service of the MoE.

The number of entries varies from year to year and from school to school, and is determined yearly by a Ministerial Decree following recommendations of the two advisory boards, that is the National Council of Higher Education and the Council for Technological Education.

Candidates wishing to participate in these general exams at national level select only one of four major fields of study (*desmes*). Each of these fields of study has a specified set of tertiary education institutions (AEI/TEI) and disciplines. Candidates compete in four core subjects for which they prepare during the senior year of their secondary studies. The candidate's preference for the institutions/ disciplines of the selected major field of study is declared on the higher-education application according to priority.

Final selection and acceptance to Higher Education Institutions (AEI/TEI) is determined by combining the candidate's score on the Entrance Exam with the AEI/ TEI preferences and number of places available in each institution. The candidate's score is the highest criterion, followed by the other two in the sequence given. Using this procedure, it is clear that no candidate in the entire country is left out provided that the candidate achieves a score higher than that of the last entry to a specific institution of desired choice.

However, for certain disciplines there is an additional requirement for a fifth subject to be taken during the General Exams. For example, for the School of Architecture, architectural drawing is taken as a fifth subject.

The organisation and administration of the General Exams, is the responsibility of the Section for Entry Exams of the MoE.

This section forms annually three different types of Committees responsible to produce, administer and grade these exams:

- Central Committee for the General Exams (KEGE) responsible for the compilation of the questions and subjects of the exams. It is this Committee that

actually designs the exams from the corresponding subjects taught at the senior year of the Lyceum. This committee consists of University Professors, School Counsellors and senior year Lyceum teachers.

- General Exams Committee. This is a committee formed by Lyceum teachers chaired by a Lyceum Director, responsible for the proper administration and implementation of the General Exams at the dates they take place. Two hundred such sub-committees are formed to cover the 200 Examination Centres all over the country.
- Marking Centre Committee. This committee is formed by School Counsellors and selected Lyceum teachers and is responsible for the marking of the exams. Each year, a large number of markers are selected, to cover all of the 20 Marking Centres around the country. It has to be noted that each exam is marked by two independent markers. The average of the two marks, is the candidate's final mark for the specific exam.

Presently, the MoE is contemplating possible modification to the General Exams system. It has been observed that students spend the final two years of their Lyceum studies preparing for the four subjects in the sector they have selected, thus ignoring the rest of the subjects, school activities, extra-curricular activities and the pedagogical goals of secondary education. It is time to reconsider the scope and structure of the entrance exam system.

Higher education laws

As mentioned in the overview, the law in effect is presently Law 1268, supplemented by Law 1404 in 1983 and modified by Law 2083 in 1992.

The main innovations brought about by Law 1268/82, which drastically changed the operation of universities, are the following:

- The old faculties were divided into departments, each of which corresponds to a university discipline area.
- The Chair system, which was the focus of the past organisation of universities, was replaced by the scientific sector (*tomeas*). The *tomeas* is responsible to a General Assembly in each Department.
- All policy decisions related to the various levels are taken by the appropriate General Assemblies which consist of all members of the teaching staff and a considerable number of undergraduate and some postgraduate students.
- Undergraduates have equal representation in the electoral bodies for the selection of the administrative heads of the university as the members of the academic staff.
- Members of the teaching staff form a single body with four levels:

- lecturer;
- assistant professor;
- associate professor;
- professor.

Only those belonging to the two upper ranks of the academic hierarchy are elected to permanent (tenured) positions. Appointments and promotion of all teaching staff are made by special electoral bodies, which meet together with the General Assemblies of the departments. New categories of auxiliary teacher, technical and administrative personnel have been created.

- Each university is administered by: *a)* the Rector who is supported by two vice-Rectors, elected for a period of three years by an electoral college. The electoral college consists of all the faculty members, an equal number of undergraduate students and representatives of the technical staff, the administration staff, the graduate students, the teaching assistants and the foreign language teachers. Each of the latter groups has a representation which is 5 per cent of the size of the faculty (total 25 per cent); *b)* the Rectors' Council, which consists of the Rector, the two vice-rectors, one representative of the students and one representative of the administrative personnel; and *c)* the Senate consisting of the Rector and the vice-rectors, the deans of the university faculties, the heads of the autonomous departments, one representative of the teaching staff, one representative of undergraduate students from each department, one representative of administrative personnel and a number of representatives of the post-graduates students. All representatives are elected. The Senate is regarded as the top administrative agent of the university.
- Each faculty, comprising of relevant departments, is administered by: *a)* the Dean, who is elected for three years by the General Assembly of the faculty; *b)* a Council which comprises the dean, heads of the departments and one undergraduate student from each department; and *c)* the General Assembly of the faculty which consists of the General Assemblies of the departments.
- Each department is administered by: *a)* the head, who is elected for two years; *b)* the Administrative Council which consists of the head, the directors of departmental sections and representatives of the students and of the technical or administrative personnel; and *c)* the General Assembly of the department. The director of each sector, who is elected for one year, and the General Assembly of the sector are the administrative agents.
- A National Academy of Letters and Sciences (EAGE) and a National Council of Higher Education (SAP) as already described, were established by the new law, as advisory bodies to the Government and as a co-ordinating supervisory agencies on teaching, research, undergraduate and postgraduate pro-

grammes, evaluation and appointment of academic personnel, creation of new universities or units in them, allocations of funds, etc. However, the National Academy of Letters and Sciences has never functioned because of the negative reaction to it of the professorial body.

- The undergraduate studies were reorganised into "semester courses" and a basic structure for the promotion of graduate programmes was set up.

As stated above, Law 2083 in 1992, modified Law 1268 of 1982. The main modifications were the following:

1. The participation of students in the procedures for the selection of administrative bodies of higher institutions and in decision-making bodies was reduced to 50 per cent of the faculty.
2. The election of the Vice-Rectors became a separate procedure from that of Rectors.
3. A four-year plan for the creation and advertisement of teaching staff positions was established.
4. The role of administrative bodies with a small number of members was strengthened.
5. Members of the teaching staff were ranked according to the service they provide (full time or part-time employment).
6. Two cycles of undergraduate studies were established. The first cycle has four semesters. Passing the examinations in all subjects taught during the first cycle is a prerequisite for the continuation of studies in the second cycle.
7. Students who fail to complete their studies within the prescribed period of time, extended by two extra years, were not entitled to any kind of financial aid awarded by the state.
8. Postgraduate studies and the functioning of research programmes was reorganised.
9. Free distribution of academic textbooks was restricted only to students with low annual income.
10. New academic institutions such as the Centre for the Greek Language, the Open University and the Committee for Evaluation of Higher Education were created.

The above measures have been further modified or abolished by Law 2188/94 (Minister of Education, D. Fatouros) as follows (retaining the numbering above):

1. The participation of students in the procedures for the selection of administrative bodies of higher institutions and in decision-making bodies was increased to 80 per cent of the faculty.

2. The election of the Vice-Rectors is not a separate procedure from that of Rectors.
3. A one-year plan for the creation and advertisement of teaching staff positions was established.

Points 5, 6, 7 and 9 were deleted.

Points 8, and 10 remained the same.

Special regulations concerning "guest" students and the mobility of teaching staff and students were also introduced by the new law. This is an attempt to adjust the legal framework of Greek higher education to the context of European Union and to promote co-operation with other countries.

Finally, both the organisation and the functioning of the Technological Education Institutions (TEIs) is based on the Law 1404/1983, and Presidential and Ministerial decisions issued in connection with this law. The TEIs are distinguished from the AEIs, in terms of their purpose, function (including their administration), staff qualifications and hierarchy, the length of programmes and the fact that they offer no postgraduate courses.

However, their organisation and operation is similar to those of the AEIs. TEIs are oriented towards the application of recent technological knowledge and practice, while AEIs are more science and research-based institutions. Thus, the TEIs have direct links with various productive enterprises where most of the students' practical work is carried out.

TEIs are self-governing bodies enjoying academic freedom and freedom of teaching and research. They are divided into schools and departments similar to those of AEIs. Each TEI together with its schools and departments is administered by members elected by the General Assemblies in which the teaching staff, an important number of students' representatives and a number of support personnel representatives participate.

The permanent teaching staff are grouped according to three scales: laboratory professors, assistant professors and professors. Possession of a doctorate is a necessary prerequisite for appointment to the rank of professor.

The new law for TEIs provides for the establishment of two Advisory Services at the MoE to offer TEIs advisory support. They are: *a)* the Council for Technological Education (*Symboulio Technologikis Ekpedefsis* – STE); *b)* the Institute for Technological Education (ITE). In addition there are Regional Technological Councils whose role is to facilitate the formation of links between TEIs and productive units for economic and any other support.

There is no quality assessment procedure internally or at the national level for the universities and the TEIs. However Greece participates in the pilot project of the EU for the evaluation of two departments, one from AEI and one from TEI. It is also

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a stated goal of the Minister of Education to extend this exercise to all universities and TEIs.

Number of Greek students in foreign universities

It is estimated, that the number of students, who were studying at foreign universities, was 28 380 in 1992 and 29 213 in 1994. Out of these, 5 738 in 1992 and about 6 500 (estimate) in 1994 were postgraduate students. The majority of these postgraduates had grants from public or private foundations such as the State Scholarship Foundation (IKY 550 grants), Onasis, Bodosakis and others.

For the remaining students studying abroad, the majority had not succeeded in the entrance exams to the Greek AEIs or TEIs and decided to study in foreign countries to obtain a university degree.

It must be noted that about 87 per cent of the total number of students who study abroad, prefer Europe for their studies and especially Britain, Italy and then Bulgaria and Romania.

Number of foreign students in Greek universities

Table 3.7 gives the number of foreign students who were studying in Greek universities for the academic years 1990-91, 1991-92, 1992-93.

Table 3.7. **Number of foreign students in Greek universities**

	(1)	(2)	(3)	Total
1990-91	2 245	2 924	1 124	6 293
1991-92	2 369	3 025	1 181	6 575
1992-93	2 290	3 204	1 263	6 757

1. Students from Cyprus.
2. Compatriots (students whose parents are Greek and live abroad).
3. Other foreign students.

Source: Ministry of Education.

Co-operation of Greek universities with European universities under EU programmes

Since 1988, European Union has created programmes for inter-university co-operation, like Erasmus, Lingua, etc., between the member countries of EU. Table 3.8 gives the evolution of these programmes between the academic years 1988/89 and 1993/94, the number of students which took part and the duration (in months) in which the students stayed in the foreign country.

Table 3.8. **Co-operation of Greek universities with European universities under the EU programmes**

	Programmes	Students	Duration (in months)
1988/89	48	195	908
1989/90	99	471	2 540
1990/91	106	620	3 370
1991/92	204	965	5 454
1992/93	304	1 303	7 271
1993/94	540	1 765	9 868

Source: State Scholarship Foundation.

Centres of liberal studies

In the recent years several, about 30, private organisations (Centres of Liberal Studies – EES) provided post-secondary education. Some of these are affiliated with foreign universities. These organisations are operating under a law of 1935 as commercial enterprises. However, since these organisations are not controlled by the MoE but rather by the Ministry of Commerce as commercial enterprises, there is much scepticism about the quality of the education they provide.

Applying the organisational structure of foreign universities, some EES have set-up courses of two to three or, in some cases, four years. In these cases the students of EES are also students of the foreign universities. This means that after two or three years of studies in Greece these students may go to the town or the city where the associated university is located, to complete their studies and obtain a degree. Most of the co-operations are with universities in Britain and the United States but there are also co-operations with universities of France, Germany and Switzerland. Again, since the MoE is not involved in this kind of education, there is no formal recognition of their degrees. The case of the American Degree College in Athens (with approximately 7 000 enrolments in 1994) is a special case since it offers degrees which are often accepted abroad at the Bachelor level. In the last two years some of these co-operations have facilitated to MSc or PhD degrees. It must be emphasised that the Greek State does not recognise degrees awarded under these circumstances.

SPECIAL EDUCATION

The Constitution of Greece (Art. 16-21) and Law 1566/85 incorporates the education of children with special educational needs in the central framework of the education system, based on the philosophy of equal opportunities in education at all levels. Greece as a member of the international organisations for child protec-

tion, has planned the special education framework in order to respond to two basic principles: integration and participation.

The educational policy of the MoE, regarding pupils with Special Educational Needs (SEN), is a mainstream school for all, where the acceptance of pupils with or without special needs is expressed as a normal status and behaviour by all school sectors.

Structure

Law 1566/85 integrates pupils, from the age of 3½ to 18, with SEN in the mainstream school by providing the needed support. Compulsory normal (ordinary) education is provided from 6 to 15 (Gymnasium level).

Compulsory education in schools

Compulsory education is offered in the following types of schools:

- Special schools: pupils with significant learning difficulties may enrol in special schools in order to follow special educational and training programmes.
- Special classes: pupils study at a special class where they are provided with special educational assistance with periods of attendance at the ordinary class.
- Ordinary school classes: pupils follow the day programme of the ordinary class in combination with a special class in addition to the school framework. While attending the ordinary class, pupils are provided with special support within the ordinary class daily programme (see Table 3.9).

Post-compulsory education

Having completed their studies at the Gymnasium, pupils with SEN have the following options:

- Pupils able to follow the detailed national curriculum register in the schools of upper secondary level, *i.e.* Lycea and Technical-Vocational Schools (TES).
- Students with significant learning difficulties, having completed the low secondary level, may enrol in Technical Schools for professional training. Apprenticeship is available to young people aged 15-18 in specialised centres which offer a variety of specialisation mostly in Information Technology.

Table 3.9. **Special education framework in Greece**

Level of studies	SEU	Students	Males	Females	Total
I. Primary education					
– Pre-primary	40	–	49	–	49
– Primary education	139	–	470	129	599
– Special classes	602	–	602	–	602
Subtotal	781	13 562	1 121	129	1 205
II. Secondary education					
– Lower level (Gymasium)	8	208	–	–	–
– Upper level (Lykeio)	6	131	191	12	203
– Technical schools	7	235	58	4	62
Subtotal	21	574	249	16	265
Total	801	14 136	1 370	145	1 515

SEU = Special educational units.
Source: Ministry of Education.

Tertiary education

Tertiary education offers equal opportunities to all pupils who graduate from the upper secondary level (Lyceum).

Pupils with learning difficulties, upon graduation from upper secondary level (Lyceum), may participate in the national examinations for higher studies' entry. For certain categories of SEN, *e.g.*, deaf, hearing impaired, etc., special options and provisions are offered.

Comments on special education

The development of the special education system presents several weaknesses:

- Great attention has been given to primary education whereas there is much to be done at the secondary level and in the professional training.
- Pupils attending special classes are mostly without very severe learning difficulties, whereas pupils with severe SEN still study in special school units though some of them function near the mainstream schools.
- In recent years, the MoE has concentrated on promoting and broadening the schemes of integration in the following way:
  - Special schools co-exist with normal schools (special integration);
  - Special classes have been developed in the normal schools since 1985. Pupils with SEN receive supportive teaching (individualised educational programmes for three to seven hours per week;

  - The MoE aims at developing programmes for total integration giving supportive teaching in the normal classes. Problems arise due to lack of resources and special training of teachers.
- New flexible curricula are being developed by the Pedagogical Institute addressing primary education, so that the teacher can adjust the lessons to meet the learning difficulties of all students.
- The current detailed curriculum at secondary level is not responding to the needs of pupils with SEN: curricula should be based mainly on assistant technology at all levels of compulsory and professional education. Towards this direction, the Pedagogical Institute has planed a considerable number of activities, within a period of five years. New flexible curricula of professional training are being planned and developed for the initial professional training of students with SEN.
- There is still a lack of specialised personnel (psychologists, social workers, etc.). The number of appointed personnel during the last five years is not sufficient.
- Specialisation is offered only to teachers of primary education in the large cities whereas in the rest of the country, counselling and training, provided by the school advisers to teachers, is not updated.
- Specialisation does not exist yet for teachers of secondary education.

LINKING OF THE EDUCATION SYSTEM WITH THE TRAINING SYSTEM

STRUCTURE OF THE FORMAL TRAINING SYSTEM

For the purpose of this review, the term "formal training" refers to all training schemes, school-based or company-based, which lead to some kind of formal national-level certification. "Non-formal training" on the other hand, refers to all other training activities, which may lead to internal market certification or no certification at all, regardless of skill or qualification acquisition.

Formal training before the 1992 reform

Before the 1992 reform, all formal training was delivered within the formal education system and was supervised centrally in accordance with the provisions of Law 1566/85. It was mainly school-based, initial training, supervised by the MoE. However, alternative, school-based initial training was available at tourism schools (supervised by the Ministry of the Presidency), Marine Schools (supervised by the Merchant Marine), Apprenticeship Schools (supervised by the Ministry of Labour) and Nursing Schools (supervised by the Ministry of Health).

School-based training

School-based training before the 1992 reform, was offered in Technical-Vocational Lycea, Integrated Lyceum and Technical-Vocational Schools where initial training (basic training + specialisation) was provided. However, in actual fact, it was very difficult to adhere to common quality throughout the country, due to serious problems caused by inefficient, low enrolment schools in the rural areas. There were also problems created by the insufficient laboratory instruction in schools which were not supported by a School Laboratory Centre (SEK). These problems, together with the need to make specialisation training more occupation specific, were the main reasons leading to the decision to separate basic training from specialisation training in the 1995 reform. With the 1995 reform, specialisation training was placed outside the formal education system, thereby making it more flexible.

Company-based training

Before the 1992 reform, there was no formal company-based training (excluding practical training offered within companies to apprentices or to occasional students).

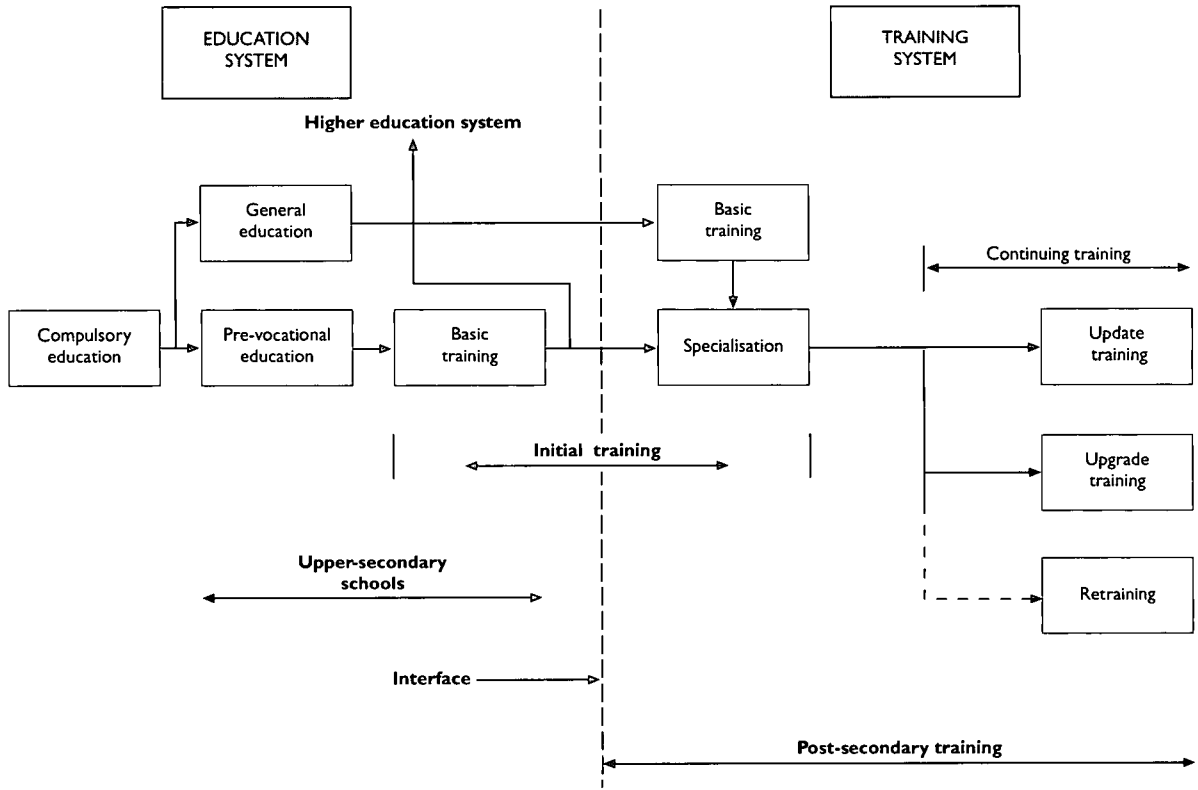
Non-formal training before the 1992 reform

Before the 1992 reform, all training activities planned outside the education system were non-formal, leading to certification with validation limited to internal labour markets. For example, there were alternative training schemes offered by the National Tourism Organisation (EOT) leading to diplomas recognised only by EOT enterprises and only occasionally by some private tourist companies. The Enterprise Training Centres in Athens, Salonika and Volos offered several up-to-date training courses for industry workers without any formal national recognition. Adult training programmes run by the Prefecture Committees for Adult Education in all 52 Prefectures of the country, were also non-formal, even though some training led to vocational skill acquisition.

Formal training after the 1992 reform

In 1992, a new law was introduced (Law 2009/92) which established a "National Vocational Education and Training System" for the supervision of all formal vocational education and training activities leading to national training certificates. Figure 4.1 shows schematically the new structure of the education and training system. This system is supervised by the MoE through the newly established national organisation called the Organisation for Vocational Education and Training (OEEK). In clarification, it should be noted that the Ministry of Labour, besides its responsibility for the apprenticeship schools, also supervises all non-formal training activities which are partly financed by the European Social Fund. As shown in Figure 4.1, initial training is offered partly within the education system (for prevocational education and basic training) and partly within the training system (for specialisation). The rationale behind this division is that the education system should provide vocational education with a fundamental basic training component which prepares the students for occupational adjustment; whereas the training system should be occupation specific, *i.e.*, it should develop the student's specific competencies through specialised training in preparation for employment. In this manner, a youngster is trained for example, to become an "electronics technician" within the education system, and then enrols in the training system to acquire specialist skills such as, for example "maintenance of ship automation systems".

◆ Figure 4.1. ***New structure of education and training system***



Source: Ministry of Education.

School-based training

School-based training after the 1992 reform, continues to exist in the form of pre-vocational education and basic vocational training offered in vocational education schools supervised by the MoE (Technical-Vocational Lycea, Integrated Lycea and Technical-Vocational Schools) and the Ministry of Merchant Marine (Marine Lycea). The Lycea offer generalised vocational training programmes whereas the schools provide more occupation specific courses.

School-based training in the form of specialist training is offered at the newly established Institutes for Vocational Training (IEK) which operate at post-secondary level and aim at meeting the training needs of general lyceum graduates primarily. The four-semester programme includes basic training and specialist training. In addition however, they are designed to accommodate the specialisation needs of Technical Lyceum- and Integrated Lyceum-Graduates with one and two semester programmes, respectively.

The IEK are the backbone of the 1992 training reform because their planning, operation and programme certification are closely linked to the local, regional and national labour market needs, through the concept of "institutionalisation".[11]

Figure 4.2 shows the fields of study available. Table 4.1 shows IEK statistical data. Tables 4.2. and 4.3 show the evolution of basic data for 1992-94 and 1993-94 in the public and private sectors.

Company-based training

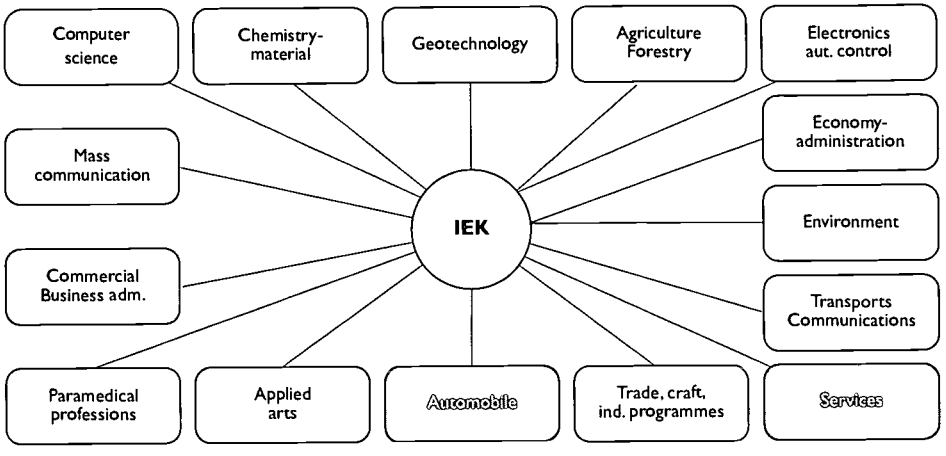
Formal company-based training, in the form of in-service training or enterprise training, is now possible and is provided for by Law 2009/92. This means that this type of company-based training leads to national certification. Formal company-based training takes the form of up-dating, up-grading and retraining. In some cases, it can be basic training of semi-skilled workers.

LINKS TO THE EDUCATION SYSTEM

As already mentioned, all programmes of vocational education and training delivered in the context of the education system are school-based, generic (non-occupation specific) and are subject to time-based certification. In addition, since they are incorporated in a generally inflexible, centralised education system, they are resistant to innovation and change and, therefore, display great inertia towards changes in market trends. Needless to say, they also lack compatibility with the local needs.

On the other hand, the new training system, which has been designed to operate *outside* the formal education system, displays flexibility in planning, delivery and certification of training programmes. These training programmes are all

◆ Figure 4.2. ***IEK: Fields of study***



Source: IEK.

Table 4.1. **IEK statistical data**

	December 1994	
	Public	Private
Number of IEK	59	73
Enrolment	13 000	13 592
Courses (specialities)	62	37
Number of teachers	4 000	–

Source: Ministry of Education.

Table 4.2. **IEK – Public sector**
Evolution of different types of indicators for the period 1992-94

	September 1992	February 1993	October 1993	March 1994	September 1994
IEK	14	15	38	38	55
Courses	42	47	52	52	64
Teachers	1 478	1 978	3 421	3 621	4 000
New entrants	3 388	1 173	5 916	1 456	6 766
Candidates	13 689	4 739	25 954	3 842	24 944

Source: Ministry of Education.

Table 4.3. **IEK – Private sector**
Evolution of different types of indicators for the period 1993-94

	October 1993	March 1994	September 1994
IEK	44	52	73
Courses	38	38	37
New entrants	4 455	845	9 844

Source: Ministry of Education.

occupation specific and subject to competence-based certification. In addition, the programmes offered are subject to cancellation should there be evidence of labour market saturation. Moreover, they are planned according to regional needs. The so-called Tripartite Advisory Committees, which are composed of representatives of the Social Partners, operate at regional level (there is one for each of the 13 Administrative Regions). These Committees have active participation in all aspects of the planning and certification of the training programmes offered by the IEK in the Region.

In spite of the obvious antithesis of the two systems (education system and training system), they are complementary and have common aims and objectives. The training offered in the context of the education system, generic and inflexible as it may seem to be, is targeted towards the development of key qualifications and social skills, which lately seem to be of greater importance in the context of training strategies incorporated in the so-called New Growth Theory. In addition to these qualifications and skills, the school-based formal education system aims to guarantee, with some minimum standards, the delivery of the basic training component of initial training and leave the occupation specific specialisation training to be acquired in the flexible, market-oriented and regionally influenced, training system.

As a result of this link, the secondary education graduate-employment situation has improved considerably, if one considers the following secondary-education student-flow reality: one out of five compulsory-education school-graduates, who continue their studies in upper-secondary education schools, selects a vocational school (TEL, EPL, TES); the remaining four enrol in a general education Lycea. Of the four who attend the general education path (academic education preparing students mainly for university and non-university tertiary education entrance) only one eventually enters tertiary education. This means that three out of five secondary-education graduates enter the labour market with virtually no employable skills. These youths, who are academically well prepared, are the target of the new training system offering modern, occupation-specific training programmes.

LINKS TO THE LABOUR MARKET

It is a fact that there have been several attempts (in most cases sporadic and certainly not comprehensive) to predict the "needs" of the labour market, in order to apply some educational planning strategy. These attempts have been assessed as generally unsuccessful (Pesmatzoglou, 1987). Such attempts include amongst others the Regional Mediterranean Project (OECD, 1965), and occasional sporadic projects implemented by KEPE (Glytsos and Fakiolas, 1985; Glytsos, 1995; and Kanellopoulos, 1994). In addition, several independent projects, financed mainly by the European Union, have been conducted within the context of regional development projects (OAED, 1989; Papatheodosiou, 1990; Centre for Spatial Studies, 1991; and URSA-NET, 1991).

The effectiveness of educational planning, based on quantitative and qualitative data derived through the application of various models monitoring the labour market, is certainly a controversial issue. It seems that the majority of the so-called neo-classic economists claim that most techniques used for manpower planning are inaccurate and ineffective in practice (Klees, 1986, p. 577). In addition, it has been shown, on the basis of a review study on experiences derived in the last 25 years, that educational planning has not had good results. On the contrary, many mistakes have been documented which have led to catastrophic results (Psacharopoulos, 1986, p. 560). Even though most educational planning techniques seem unreliable, it is well-known that the level of any planning activity is determined by *a)* the existing structures of administrative planning which takes place within the competent ministries and by *b)* the level of co-operation and co-ordination exercised among these ministries. It also requires integrated, comparable and up-to-date statistical data (see OECD, 1982). It is very difficult to claim that this is the case for Greece, a fact which makes effective educational planning very difficult (if not impossible).

In conclusion, it must be noted that there is no educational planning which would effectively link the education system with the labour market in a continuous mode (through monitoring and feedback). The results of existent planning is rather disappointing. Several sectoral studies conducted by the Greek Industrial Union on the qualification needs of the industry (SEB, 1990), and a more recent study on a new industrial strategy (Papalexopoulos, 1993) underlined the low compatibility of secondary vocational education with the needs of industry. Even more interesting are the findings of a doctoral thesis submitted to Pantion University (Athanassoula-Reppa, 1992), which concluded that there is low interrelation between the structure of the specialisations of secondary vocational education graduates and the vocational structure of employment in the country.

The above gloomy situation regarding the linking of the education system to the labour market has forced the last two governments to look at a policy which will

gradually "vocationalise", to a small degree, general upper secondary education and generalise upper secondary vocational education, and shift occupation-specific vocational training to the training system, which through its tripartite operation and tripartite planning can achieve greater compatibility with the labour market.

CERTIFICATION AND VALIDATION

Certification policy before the 1992 reform

Before the 1992 reform, only training delivered within the framework of the formal education system was certifiable nationally. The type of certification was *time-based* and not *competence-based*. The training school leaving-certificate, which certified successful completion of the school requirements within the time duration determined by training regulations, constituted the official national document (*ptychion*), giving the holder professional rights for the practice of the vocation with a specified degree of autonomy. These rights are published in Presidential Decrees for Professional (vocational) Rights, which in turn, were issued according to Law 6422/1934.

In some specific vocations, such as the profession of electrical fitters, the time-based certification issued by the MoE was followed by a competence-based certification, issued by the Ministry of Industry, after a minimum two-year probationary practice period. Although this is applied with a limited degree of autonomy, such vocations are few and constitute the exception rather than the rule.

The certification policy just described reflects a loosely defined, underdeveloped and non-institutionalised training system, which has prevailed in Greece since the commencement of formal vocational training activities in 1959. Very few Presidential Decrees for Professional Rights were ever published, mainly because the inter-ministerial committees set up to draft them could not reach agreement, since there were many conflicts due to professional interfacing (*e.g.*, engineer, engineering technologist, higher engineering technician, lower engineering technician, etc.). This has resulted in an unstructured certification system with a high degree of arbitrariness exercised in the labour market.

Certification policy after the 1992 reform

The 1992 reform divided the initial training cycle. It left the basic training component inside the education system and shifted the specialisation component into the new formal national training system (see Figure 4.1). Consequently, basic training certification remains as it was, *time-based,* which means that the certification procedure remains the responsibility of the vocational education teachers in the schools and is subject to internal assessment procedures in all public schools. Private school students, after completing their internal exams and evaluation tests,

must appear before a Ministry of Education Examining Board and be examined once again. Only if they pass this second examination can they receive their official certificate which is issued by the MoE. It must be noted here that only programmes which are licensed to operate within the framework of the formal education system, as defined by Law 1566/85, are subject to national certification. All other basic training programmes are considered non-formal and their certification is not officially recognised.

On the other hand, with the new Training Law (2009/92, Article 6), specialist training and most forms of continuing training (including retraining) is subject to official national certification which is *competence-based*. As stated earlier, each of the 13 regions of the country has established Tripartite Advisory Committees (TSE), in which the social partners are represented equally. One of the many responsibilities of the TSEs is the establishment of Examining Boards, which under the guidance of a National Central Examination Committee, undertakes the task of the practical examinations for each training speciality (the theoretical examination is administered nationally with exams supervised by the responsibility of the National Central Examination Committee). Each candidate must undertake an individual, practical examination, conducted by a tripartite, three-member examination team, within a workshop, a laboratory or a studio laboratory. Where necessary, the practical examination can take place in a regular work environment. Upon successful fulfilment of the requirements of both the theoretical and practical examinations, as well as attendance and study requirements at the Institute for Vocational Training, the candidate receives a certificate award which has both national and European recognition (through Directive 92/51/EEC).

Validation of training

According to the new Training Law, validation of training is accomplished through Presidential Decrees regarding Professional Rights. However, the opinion of the Administrative Board of the Organisation for Vocational Education and Training (OEEK) is taken into consideration. (OEEK was established with the provisions of Law 2009/92.) Moreover, it forms the Supervisory Body of the National System for Vocational Education and Training and has a Board with tripartite representation.

Special ad-hoc committees, with representatives from the appropriate Ministry supervising the practice of the profession under consideration, are set up to draft the contents of each Presidential Decree in collaboration with a permanent Professional Rights Committee established by OEEK, before it is submitted for consideration to the Board of OEEK and to the Minister of Education for his signature.

It should be noted that the above procedure for validation of training certificates applies only to regulated professions.

PUBLIC AGENCIES OF VOCATIONAL AND TECHNICAL EDUCATION AND TRAINING

OEEK – IEK

The MoE, in recognition of the great importance of vocational education and training for *a)* the overall development of the country and *b*) the provision of young people with the essential skills and competencies, proceeded to the establishment of a National System of Vocational Education and Training (ESEEK).

The National Vocational Education and Training System, established by the Law 2009/1992 aims at:

- planning, developing and delivering Vocational Education and Training;
- certifying all formal vocational training activities;
- co-ordinating the vocational training system with the Education System;
- implementing all types of national or local programmes of Vocational Education and Training.

The official body responsible in realising the aims and objectives of ESEEK is the Organisation for Vocational Education and Training (OEEK).

The OEEK is an autonomous, legal entity of public law, supervised by the MoE. The State and the social partners are represented in the Management Board.

The remit of OEEK is to supervise the development of a coherent national system of vocational education and training in conjunction with the social partners and to introduce a coherent national system of vocational qualifications. The main aim of the OEEK is to improve vocational opportunities at post-secondary level and to meet the needs of the labour market.

The Institutes for Vocational Training (IEK) are not part of the formal education system (*i.e.* they are not supervised by the MoE). They are of post-secondary training level and supervised by OEEK.

The post-secondary training system diverges from the traditional academic system. Diplomas are awarded and recognised by the State, but these do not fall within the formal education system. Holders of these awards have no access to higher education (*i.e.* Institutions of Higher Education – AEI, Technological Education Institutions – TEI).

The different sections of IEK may be attended by adults who have finished the Gymnasium, the Technical and Vocational Schools, the apprenticeship programmes of OAED (Manpower Employment Organisation) and Lycea of all types, as well as by adults who have completed any education level and want to upgrade their skills and qualifications. Courses offered by the Institutes for Vocational Training are designed and structured according to the needs and educational background of the students.

Students successfully completing their studies can seek immediate employment.

At present, there are 59 Public and 73 Private Institutes for Vocational Training operating all over Greece. The 61 specialisations offered cover the following areas: Computer Science, Chemistry and Materials, Geotechnology, Electronics and Automatic Control, Economic Administration, Environment, Automotive Technology, Applied Arts and Paramedical Professions.

OAED (Manpower Employment Organisation)

OAED is the main instrument for the implementation of government policy regarding employment. It is an autonomous, public, legal entity supervised by the Ministry of Labour. The State and the social partners are represented in its Management Board.

OAED's services comprise of a Central Administration and Regional Services. Its budget revenue comes from *a)* employees' and employers' contributions; *b)* European Community's Structural Funds; and *c)* the State.

More specifically, OAED's aims are carried out through the following sectors of activity: vocational guidance, technical vocational training, accelerated vocational training, further training and retraining, the apprenticeship system, post-lyceum vocational training, social protection, geographic and professional mobility of labour force, employment promotion.

The apprenticeship system

Technical education for young people is provided by OAED through the apprenticeship system. The apprenticeship system, which lies outside the formal education system, constitutes an internationally established practice. It combines training in the Apprenticeship Schools of OAED with practical training in public or private enterprises.

There are about 12 700 apprentices in the Training Units of OAED and about 3 200 who complete the programme every year.

Apprenticeship training, which lasts three years, is open to 15-18 year-olds who have completed the Gymnasium.

The first year of training, with a strong emphasis on workshop training, takes place at an apprenticeship centre. During the following two years, a progressively greater proportion of the student's time is spent in a company, until by the final term, full-time work-based training is undertaken.

There are between 20 and 30 specialisations according to labour market needs and it is the responsibility of OAED to secure training places with companies. The

diploma awarded through the apprenticeship system corresponds to that of Technical-Vocational Schools (TES).

Post-secondary vocational training (IEK)

OAED – in its continuous search to meet the country's training needs – has decided to extend its activities within the field of post-secondary vocational training and establish Institutes of Vocational Training (IEK). At present, there are 59 IEK operating all over Greece.

Experimental Institute of Vocational Training and Employment (PIEKA)

In 1993, OAED established the Experimental Institute of Vocational Training and Employment (PIEKA), a public law legal entity. Its mission is:

- to follow up the statistical development of employment/unemployment in every prefecture of the country on the basis of primary research data provided by:
  - National statistics service
  - OAED
  - Eurostat
  - OECD
  - Other agencies
- to develop further innovative vocational training programmes;
- to carry out research on matters relevant to the statistical analysis of employment and unemployment.

GGLE (General Secretariat for Adult-Education)

The GGLE and its regional agencies (Regional Committees for Adult Education, NELE, throughout Greece), is the sole governmental service responsible for projects regarding Adult Education.

Such projects, through which the aims of GGLE are realised, include:

- further education;
- literacy;
- illiteracy prevention;
- vocational training;
- vocational training and rehabilitation of disabled persons;
- social support activities;
- health counselling-prevention;

- cultural and leisure activities;
- seminars on intercultural communication;
- workshops for the preservation of traditional arts and skills;
- social integration of unprivileged groups.

One of the basic activities of GGLE is the planning and development of projects directed toward underprivileged groups such as:

- gypsies and Gypsy children (adult Gypsy and Gypsy-children education, community awareness);
- offenders – ex-offenders (vocational training, literacy, support services);
- disabled (vocational training and social rehabilitation);
- repatriated Greeks from Western and Eastern Europe, former Soviet Republics (Pontian Greeks), and Albania (Greek language, vocational training);
- elderly (New Educational Opportunities, Social Support).

The GGLE's activities are supported by EU funding through corresponding programmes.

RESOURCES

TEACHING STAFF

Teaching qualifications

Kindergarten

Kindergarten teachers are promoted according to three scales: A, B, C. Promotion from scale C to scale B requires two-year service on scale C, while promotion from scale B to scale A requires the completion of six-year service on scale B.

For the initial appointment of kindergarten teachers the following certification is required:

- university level department of pre-school education degree (*ptychion*);
- kindergarten teacher's College degree;
- teachers College department of pre-school education degree;
- any authorised (recognised) foreign university degree awarded on completion of kindergarten teachers training courses.

The person in charge of the one-post-kindergarten is the teacher of the school. The person in charge of two or three post kindergarten is the senior teacher. According to the same scale, the head-teacher is appointed by the local (district) educational authorities. Fulfilment of administration and teaching responsibilities lies with the head of the school.

Elementary school

Elementary school teachers are graded on three scales: A, B, and C. Promotion from scale C to scale B requires two-year service on scale C, while the promotion from scale B to scale A requires six-year service on scale B.

Along with the Lyceum leaving certificate, either of the following certificates is required for the initial appointment of elementary school teachers:

- university level degree (*ptychion*);
- elementary Teachers College degree;

- Vellas Ecclesiastical School ptychion;
- Thessaloniki's Upper Ecclesiastical School ptychion for those before the reform;
- any other equivalent ptychion that has been obtained abroad.

The person in charge of a one-post-elementary school is the teacher of the school. The person in charge of two-or three-post school is the senior teacher. According to the same scale, the head-teacher is appointed by the local education authorities. Article 11 (Law 1566) provides for the appointment of four or more class school heads.

The headmaster of a six-or-more-post school teaches 20 hours a week. The headmaster of a four-or-five-post school teaches 24-hours a week, while headmasters and teachers of the other schools teach 25-hours a week. Administration and teaching responsibilities rest with the head of the school.

Lower secondary education

The teachers teach the subject of their specialisation. They are university graduates and have followed four years of study in the subject concerned. The majority of them are civil servants with permanent posts. However, there are also deputies and teachers on hourly wages who are appointed to cover certain educational needs.

Upper secondary education

Upper secondary school teachers are university graduates; they have followed four years of university studies in their specialised subject.

Graduates from the technological education institutions (TEI), where studies last three years, may also be appointed in technical vocational Lycea (TEL), integrated Lycea (EPL) and technical vocational schools (TES). They teach subjects of a technical nature and have followed a one-year teachers training course in the College of Technical Education (PATES). They are also civil servants.

In-service training

The in-service teacher training was provided until now (1992-94) by 16 PEKs (regional training centres) and two units PATES/SELETE.

PEKs during their two years' operation (four terms of three months' duration each) trained teachers of primary and secondary education. Even teachers expecting a forthcoming appointment were trained for three terms.

Certain problems led to the decision for re-organisation of the PEKs. The major problems were:

- Insufficient teaching at schools where the trained teachers were employed. A class could change three teachers during the school year, one for each of the three sessions of the in-service teacher's training.
- Unwillingness of participation by the teachers, mainly because many of them had to travel long distances to teach from their PEK.
- The curriculum and the process of the training were not what the teachers expected and were far from what the administration aimed.

The reorganisation of the PEKs since March 1995, has included the following actions:

- one PEK for each prefecture;
- administrative and educational autonomy of PEKs;
- multiple training with emphasis on in school training;
- establishment of additional training services.

This practice has already begun with four PEKs as pilots.

Another type of in-service teacher training scheme is a two-year, post initial training course (*Metekpedefsi*), which is given in a separate institution. Attendance is conditional upon examinations. This type of training, which affects a very small part of the teacher population, is now available only for primary school teachers. That for secondary school teachers was abolished a few year ago.

Recruitment-Promotion

All nursery, primary and secondary school teachers are recruited and placed on tenure positions according to lists, which are compiled and maintained by the MoE (*Epetirida*). This list is held according to order of priority.

These lists refer to each category of education. Secondary education teachers in particular, are further separated, in special lists according to the subject of the teacher's specialisation.

The creation of this yearly-list (*Epetirida*) is determined according to certain criteria:

- Special social criteria as:
  - Whether one is an invalid or the off-spring of a war pensioner
  - Families having many children (over four children)
- Ph. D. qualification.

These two categories take priority only for the same year selection and they do not change the priority of all the applicants of the list.

FINANCIAL RESOURCES

Public expenditure for education

In this section the development of the expenditure of the Greek public education system during the recent 25 years (1970-94) is presented.

Total expenditure

As presented in Table 5.1, the total expenditure, current and capital, for the whole public education system, for which the MoE is responsible, presents a gradual increase. In periods of narrow state expenditure, the capital budget is the first expenditure to be reduced. The total current expenditure, shows a regular increase, as compared to the total capital expenditure, which has an increasing

Table 5.1. **Expenditure of the Ministry of Education**

	Current expenditure		Capital expenditure		Total expenditure	
	Current prices	Constant prices 1980	Current prices	Constant prices 1980	Current prices	Constant prices 1980
1970	5 300	20 385	1 100	5 556	6 400	25 940
1971	5 900	21 852	1 130	5 650	7 030	27 502
1972	7 420	26 219	1 870	8 657	9 290	34 876
1973	9 670	29 572	3 200	11 940	12 870	41 512
1974	11 500	27 711	2 240	6 474	13 740	34 185
1975	14 000	29 787	4 100	11 022	18 100	40 809
1976	17 300	32 458	5 400	12 357	22 700	44 815
1977	22 600	37 793	6 140	11 762	28 740	49 555
1978	29 500	43 834	7 800	12 420	37 300	56 254
1979	36 000	44 944	8 100	9 818	44 100	54 762
1980	42 060	42 060	6 660	6 660	48 720	48 720
1981	49 470	39 735	8 425	7 207	57 895	46 942
1982	69 680	46 268	10 370	7 880	80 050	54 148
1983	92 060	50 722	15 205	9 931	107 265	60 653
1984	117 180	54 655	24 185	13 679	141 365	68 334
1985	150 000	58 640	28 600	13 836	178 600	72 476
1986	180 528	57 365	33 600	13 228	214 128	70 593
1987	198 208	54 096	38 000	13 380	236 208	67 476
1988	242 000	58 187	40 300	12 794	282 300	70 981
1989	276 000	57 862	48 000	13 483	324 000	71 345
1990	365 000	64 302	49 000	11 470	414 000	75 772
1991	468 000	68 707	60 000	11 902	528 000	80 609
1992	535 000	68 298	69 000	12 007	604 000	80 305
1993	578 000	64 726	90 000	13 738	668 000	78 464
1994	665 000	66 490	125 000	17 036	790 000	83 526

Source: Ministry of Education.

trend, on the whole, but with irregular periods of increase and decrease, proportionate to the general economic policy.

Share of education in the state budget and GDP

The public education expenditure share of the state budget expenditure has been in last 25 years, 10 per cent, on average. Nevertheless, after 1987 it has steadily decreased, reaching 7 per cent in 1994. The reason for this, is the inproportionate growth of the state budget due to the increase of expenditure for the public debt.

On the contrary, the public education expenditure share in the GDP, has gradually increased, which is explained, on the one hand, to the public education expenditure increase, in constant prices, and, on the other hand, to the low rate of GDP increase (Table 5.2).

Table 5.2. **Share of educational expenditure to state budget and GDP**

Percentage

	Current expenditure	Capital expenditure	Total expenditure	GDP
1970	9.64	8.46	9.41	2.14
1971	10.05	7.75	9.59	2.13
1972	10.98	10.01	10.77	2.46
1973	12.45	11.57	12.22	2.66
1974	13.85	11.96	13.50	2.44
1975	9.91	12.54	10.40	2.69
1976	10.08	12.91	10.63	2.75
1977	11.29	13.43	11.69	2.98
1978	11.78	14.00	12.18	3.21
1979	11.11	11.82	11.24	3.09
1980	11.20	10.25	11.06	2.85
1981	10.82	8.96	10.50	2.82
1982	10.17	8.30	9.88	3.11
1983	9.91	8.69	9.72	3.49
1984	10.65	10.99	10.70	3.72
1985	10.61	10.40	10.57	3.87
1986	10.13	10.57	10.20	3.86
1987	9.31	10.44	9.47	3.70
1988	8.64	10.89	8.90	3.69
1989	8.21	11.15	8.54	3.52
1990	7.80	10.65	8.05	3.95
1991	7.93	10.53	8.16	4.22
1992	7.99	9.72	8.16	4.00
1993	7.09	9.23	7.32	3.94
1994	6.45	12.50	6.99	4.16

Source: Ministry of Education.

Expenditure by level of education

Current expenditure

As presented in Table 5.3, it is obvious that the pre-school and primary education expenditure, in constant prices, is gradually and steadily reducing (*e.g.* in 1970 47 per cent while in 1994 30 per cent), to the advantage of the secondary education (*e.g.* in 1970 23 per cent, and in 1994 38 per cent).

Table 5.3. **Share of current expenditure to the total of current expenditure**

Percentage

	Presc. + Prim.	Secondary	General	Technol.	Univers.	Tertiary	Other	Total
1970	47.14	23.04	70.18	2.79	13.02	15.80	14.02	100.00
1971	49.02	24.92	73.94	0.47	12.39	12.87	13.19	100.00
1972	47.38	24.36	71.75	0.58	14.22	14.80	13.45	100.00
1973	42.98	24.60	67.58	0.83	17.06	17.89	14.53	100.00
1974	38.94	24.27	63.21	1.18	13.79	14.98	21.81	100.00
1975	41.44	25.47	66.91	1.34	16.72	18.06	15.04	100.00
1976	40.00	28.23	68.23	1.77	15.91	17.68	14.09	100.00
1977	36.43	27.93	64.36	1.66	15.35	17.01	18.63	100.00
1978	37.62	27.39	65.02	1.86	14.51	16.37	18.61	100.00
1979	38.64	32.02	70.65	1.73	14.00	15.73	13.61	100.00
1980	37.71	32.73	70.44	2.30	14.48	16.78	12.78	100.00
1981	36.46	33.06	69.52	2.89	15.22	18.11	12.37	100.00
1982	35.90	34.30	70.20	2.75	15.12	17.87	11.93	100.00
1983	35.33	35.83	71.17	2.65	14.35	17.00	11.83	100.00
1984	34.40	35.69	70.09	2.93	14.85	17.78	12.13	100.00
1985	35.25	35.06	70.30	3.76	14.60	18.36	11.34	100.00
1986	33.50	35.77	69.27	4.11	15.08	19.19	11.55	100.00
1987	33.19	36.10	69.30	4.58	15.10	19.68	11.03	100.00
1988	32.46	39.10	71.56	4.01	14.48	18.49	9.95	100.00
1989	32.05	38.56	70.60	4.77	15.16	19.93	9.46	100.00
1990	29.99	36.46	66.44	6.24	16.66	22.90	10.65	100.00
1991	31.40	36.68	68.08	5.71	16.73	22.45	9.47	100.00
1992	30.68	37.10	67.78	4.96	16.46	21.42	10.79	100.00
1993	30.21	38.09	68.30	5.02	15.76	20.77	10.93	100.00
1994	29.60	37.68	67.28	5.34	16.23	21.57	11.15	100.00

Source: Ministry of Education.

The tertiary education expenditure increases but at a relatively slow rate, in comparison with the secondary education expenditure. On the whole, though, the share of tertiary education grows considerably, at the cost of the general education.

Capital expenditure

As presented in Table 5.4, the pre-school and primary education expenditure, in constant prices, presents an increasing trend, while the secondary education decreases.

Table 5.4. **Share of capital expenditure to the total of capital expenditure**

Percentage

	Presc. + Prim.	Secondary	General	Technol.	Univers.	Tertiary	Other	Total
1970	33.33	47.62	80.95	0.00	16.19	16.19	2.86	100.00
1971	38.83	38.83	77.67	0.00	19.42	19.42	2.91	100.00
1972	35.98	39.68	75.66	0.00	22.75	22.75	1.59	100.00
1973	35.60	38.80	74.40	0.00	24.80	24.80	0.80	100.00
1974	35.42	33.75	69.17	8.83	19.08	27.92	2.92	100.00
1975	30.43	39.13	69.57	12.85	15.41	28.26	2.17	100.00
1976	34.55	34.55	69.09	6.96	20.67	27.64	3.27	100.00
1977	33.87	32.26	66.13	9.05	22.24	31.29	2.58	100.00
1978	41.25	30.00	71.25	4.98	22.03	27.00	1.75	100.00
1979	35.89	30.32	66.21	6.99	23.95	30.94	2.85	100.00
1980	35.94	37.50	73.44	4.69	21.88	26.56	0.00	100.00
1981	38.10	29.76	67.86	4.31	23.79	28.10	4.05	100.00
1982	36.85	31.11	67.96	4.33	17.89	22.22	9.81	100.00
1983	37.09	37.74	74.82	4.57	18.72	23.29	1.89	100.00
1984	30.96	40.04	71.00	10.35	15.89	26.23	2.76	100.00
1985	32.26	35.84	68.10	8.24	21.15	29.39	2.51	100.00
1986	34.88	33.16	68.03	7.23	24.05	31.29	0.68	100.00
1987	36.33	23.74	60.08	10.23	28.79	39.02	0.90	100.00
1988	38.39	23.13	61.52	7.34	29.73	37.07	1.41	100.00
1989	32.97	20.81	53.78	6.20	38.21	44.41	1.81	100.00
1990	34.29	20.89	55.17	6.95	36.14	43.10	1.73	100.00
1991	39.14	19.04	58.18	7.24	33.31	40.54	1.28	100.00
1992	41.88	21.68	63.57	4.60	30.13	34.73	1.70	100.00
1993	37.95	22.88	60.83	3.99	30.47	34.46	4.72	100.00
1994	39.20	24.00	63.20	3.60	29.60	33.20	3.60	100.00

Source: Ministry of Education.

Nevertheless, the tertiary education expenditure is continually growing at an intense rate, considerably higher than that of the increase in general education capital expenditure. Finally, the share of the general education expenditure, is decreasing, while the corresponding share of the tertiary education is increasing.

Total expenditure (current and capital)

As presented in Table 5.5, the total (current and capital) expenditure for pre-school and primary education is increasing, but at a slow pace, while their share in the total expenditure is slowly decreasing.

The total expenditure for the secondary education is increasing (as compared to the primary and pre-school expenditure), while the total expenditure share is also increasing.

Table 5.5. **Current and capital expenditure**

Constant prices 1980

	Total expenditure	Pre-school and primary	Secondary (general and vocational)	Tertiary education	Common expenditure
1970	25 940	10 591	7 534	4 611	3 204
1971	27 502	12 278	7 362	4 085	3 776
1972	34 876	14 088	11 189	4 743	4 856
1973	41 512	14 392	13 930	8 904	4 286
1974	34 202	12 384	9 088	6 716	6 013
1975	40 809	14 880	12 110	9 477	4 342
1976	44 815	16 320	12 520	10 204	5 771
1977	49 555	17 040	12 693	11 416	8 406
1978	56 254	19 582	15 711	11 973	8 988
1979	58 070	21 610	18 205	11 645	6 610
1980	48 720	16 721	16 616	9 565	5 818
1981	46 942	16 443	15 884	9 131	5 484
1982	54 148	18 800	18 839	10 396	6 113
1983	60 653	20 251	21 744	11 830	6 829
1984	65 620	21 768	25 341	14 743	3 768
1985	72 476	22 883	26 880	15 688	7 026
1986	70 593	23 289	24 807	16 264	6 234
1987	67 477	22 142	23 282	16 086	5 966
1988	70 973	25 083	22 715	16 693	6 482
1989	71 389	21 612	25 842	17 891	6 044
1990	74 878	22 947	25 511	19 466	6 953
1991	75 998	24 791	25 765	19 222	6 220
1992	80 357	26 003	27 957	18 819	7 578
1993	78 391	24 742	27 777	18 157	7 716
1994	83 577	26 374	29 162	20 011	8 030

Source: Ministry of Education.

On the whole, the general education (total of the two above categories) expenditure share is decreasing.

With regard to tertiary education, the total expenditure is growing more intensely than the two categories above, while – not surprisingly – their total share is also increasing to the disadvantage of general education.

Conclusion

From what has been discussed so far, it is evident that there is a gradual transition of the public expenditure priority from the general education to tertiary education. This is related to national priorities. For instance, the political intervention is shown by the increase of tertiary education funding, as compared to the primary and secondary education.

Expenditure per pupil/student

The indicator "Expenditure per pupil" has no other significance but to emphasise the annual state-expenditure per "pupil", and yearly trend of this expenditure. What is important is the comparison of the "pupil-student expenditure" between levels of education, as well as the analysis of the state expenditure, in order to produce a graduate from each level. Thus, the former is presented in Table 5.6, and the latter is beyond the scope of this review.

As presented in the table, the emerging general picture is a growth, in constant prices, of the expenditure per pupil/student.

In the pre-school and primary education there is a gradual increase, which is due to the drop in birth-rates, during the last five years.

Table 5.6. **Expenditure per pupil**

Constant prices 1980

	Primary	Secondary	STVE	University	TEI	Total
1970	11 121	19 127	27 623	50 436	101 643	18 834
1971	13 245	16 859	18 007	52 838	17 824	19 337
1972	15 412	24 264	20 355	76 270	21 172	22 303
1973	15 589	29 074	13 676	85 648	28 620	22 846
1974	13 181	18 205	13 155	70 606	118 874	25 082
1975	15 679	23 181	21 027	73 726	251 515	26 670
1976	17 067	22 414	20 637	81 250	122 865	27 706
1977	17 662	21 450	25 983	92 921	93 929	31 236
1978	20 087	25 614	32 969	96 613	80 961	33 909
1979	22 008	28 985	31 660	88 625	71 123	31 124
1980	17 070	24 859	34 384	90 578	57 888	28 390
1981	16 856	22 865	35 489	100 515	70 934	29 550
1982	19 199	25 598	33 708	104 107	74 799	32 163
1983	20 721	29 381	42 123	94 799	66 643	32 422
1984	22 091	33 446	54 022	101 582	89 946	36 034
1985	23 181	34 952	50 393	106 958	86 824	39 636
1986	23 514	31 977	42 084	101 734	59 523	35 396
1987	22 853	28 560	43 754	101 999	63 810	34 098
1988	25 940	29 345	47 238	107 086	49 705	37 727
1989	22 861	33 312	53 258	125 051	52 725	40 257
1990	24 849	33 606	46 572	121 904	51 481	41 861
1991	22 629	32 853	42 929	112 704	46 153	40 491
1992	24 324	35 350	46 189	110 360	42 255	40 884
1993	22 889	33 594	35 913	128 742	43 208	41 780
1994	24 053	35 337	34 913	132 769	41 961	43 377

STVE = Secondary Technical and Vocational Education.
Source: Ministry of Education.

In the secondary education there is a gradual and real increase of expenditure per pupil.

With regard to university education expenditure, there is a gradual and regular increase of the expenditure per student – as compared to the non-university one (*i.e.* technological education) where there is a gradual decrease which is caused by a certain restriction of expenditure, as well as by a considerable growth of the corresponding enrolments.

Public expenditure for tertiary education provisions for accommodation, meals and textbooks

This expenditure falls mostly under the current budget category and, according to the type of establishments.

University establishments (AEIs)

Rent-accommodation of students was estimated in 1994 to be Dr. 295 million and in 1995, Dr. 344 million. This expenditure covers mostly rented accommodation, while a certain amount of this expenditure may be allocated (according to the University administration's decisions) for the renting also of teaching premises. It has to be noted that the expenditure for the running of university owned student halls of residence is included in a general expenditure item for the operation of the universities, *i.e.* a total of Dr. 25.5 billion for 1994, and 25 billion for 1995.

Concerning the expenditure for the meals of students this was Dr. 4.9 billion for 1994 and Dr. 5.05 billion for 1995. These costs comprise all meals produced in the refectories of universities and their halls of residence.

Finally, concerning the textbooks expenditure, this was Dr. 3.4 billion in 1994, and Dr. 3.1 billion in 1995 and covers the cost of the textbooks that the students are provided with, free of charge, in the context of the free provision of education. A certain overall amount of Dr. 700 million may be attributed to the cost of university publications and this is derived from the aforementioned several operational expenditure. The stock of the library provisions either in books or periodicals, was estimated for 1994 (Kafetzopoulos, 1994) only for 11 universities (out of 18) respectively to Dr. 205 million and 508 million.

This expenditure is derived, either from the Capital budget (from the item of university general equipment provision) and/or from the current budget (item of general operational expenditure).

Technological Education Institutions (TEIs)

A more or less similar situation is the case in TEIs. Thus, for 1994 the cost of textbooks provided free of charge to students was about Dr. 264 million while the

expenditure for rented accommodations by the universities for students was Dr. 300 million.

In spite of the inconclusive data and the lack of a systematic survey, it can be concluded that the above expenditure is considerably high, and in certain cases, more efficient financial management may be needed. For instance, the high expenditure on rents may be reduced by more building of public halls of residence, and the expenditure of subscriptions for universities library periodicals may be reduced through better co-ordination not only within a university itself – but within all universities by inter-library new technology networking.

Private expenditure for education

As shown in Table 5.7 all private expenditure for the education of all levels, including informal public education and training, expenditure for formal private

Table 5.7. **Total expenditure for public and private education**

Percentage of GDP

	MoE expenditure	Non-MoE expenditure	Total expenditure
1970	2.22	1.46	3.69
1971	2.17	1.52	3.69
1972	2.27	1.58	3.86
1973	2.18	1.53	3.71
1974	2.73	1.70	4.43
1975	2.75	1.66	4.41
1976	2.76	1.59	4.35
1977	3.14	1.81	4.95
1978	3.30	1.75	5.05
1979	3.03	1.68	4.71
1980	2.91	1.76	4.67
1981	3.17	1.85	5.01
1982	3.38	1.91	5.28
1983	3.42	1.95	5.37
1984	3.68	1.91	5.58
1985	4.05	1.92	5.96
1986	2.68	1.97	4.65
1987	3.67	1.98	5.65
1988	3.77	1.96	5.73
1989	3.83	1.91	5.74
1990	4.13	2.44	6.57
1991	3.97	2.51	6.47
1992	3.76	2.39	6.15
1993	3.95	2.61	6.55
1994	4.02	2.33	6.34

Source: Ministry of Education.

education, expenditure for private informal education, expenditure for studies abroad, etc., is a very important percentage of the public expenditure, *i.e.* 60 per cent. Thus, the total public and private expenditure percentage of the GDP is estimated for 1994 as 6.3 per cent, broken down to 4 per cent for public expenditure and 2.3 per cent for private.

INFRASTRUCTURE

Historical perspectives the organisation of school buildings (OSK)

Up until 1965, the entire process of planning, funding, building design, construction and administration of school buildings was centralised and carried out nationally by the Ministry of National Education and Religious Affairs (MoE).

In 1962, the Organisation of School Buildings (OSK) was established in response to the increased requirements for new school buildings and the tremendous increase in urban population during the 1950s and early 1960s. The activities of OSK were supposed to last for only the following five years (until 1967).

However, the performance figures of OSK during this period were very significant and it was decided that OSK would continue to exist as a permanent organisation responsible for the construction of school buildings.

OSK's initial activities were to develop new building programs, to design new standardised school buildings, to find sites for new buildings and to provide the necessary equipment for the new schools as well as for the existing ones.

In 1984, it was decided that OSK would only be responsible for the Attica prefecture while the Directorates of Technical Services in all other prefectures in Greece, would be responsible for school buildings in their respective territory. However, OSK provides the necessary support services concerning the building programs, the technical requirements, the standardised design of school buildings, the construction details and the tender specifications and regulations.

In 1990, the municipal authorities took the responsibility for all repair and maintenance required in the school buildings of their territory. The financial support of these activities is decided by OSK every calendar year, after examination of requests from the municipal authorities.

School buildings

With regard the prefecture of Attica (for which OSK has responsibility), during recent decades, the significant increase in population of the greater Athens area, has created the need for designing and constructing new school buildings. There was no provision for sites required for such buildings. Sites are acquired after a study, by OSK, of the respective school catchment area, and collaboration with the

local authorities (*i.e.* municipalities/communities). After agreement regarding price is reached, these sites are purchased from their owners. In all other cases, land is expropriated following a judicial decision and the specific financial compensation is deposited at the State Fund of Deposits and Loans.

After obtaining the necessary sites, the next step is the design of the school building according to the level of education to be offered. Standardised designs are used and specifications adjusted accordingly. (OSK is responsible for the specifications of Nursery schools, Primary schools, Gymnasiums and Lyceums; and the MoE-DIPEE for Technical and Vocational schools.) Therefore, there is a correspondence of architectural designs with school-building specification programs by level of education and category of school.

These plans have been developed by OSK, according to the educational curriculum, the number of pupils, teachers and other staff involved.

The size of each school building varies according to the area where its construction is planned. For all urban areas, buildings with six to 24 classrooms are designed according to the expected number of pupils, buildings with one to six classrooms are designed for all other areas according to the expected number of pupils.

It is also a responsibility of OSK to design and construct special types of Lyceums such as the Integrated Lyceum, the Technical and Vocational Lyceum, the Technical and Vocational schools. Furthermore, to a small extent, special school buildings are designed for handicapped pupils (since there has been an effort to enrol these students in the existing schools).

Construction of buildings, equipment provisions

The construction of a school building is commissioned to an engineering construction company following a specific tender process which is organised and performed by OSK or the Prefecture Technical Services. Their engineering staff controls all the various construction phases, construction time-table, financial phases, etc.

When the construction of a school building has been finished, the school is delivered to the respective school committee and the municipal authority which are responsible for its operation and maintenance in the following years.

An additional responsibility of OSK is to provide for all Greek schools all the necessary equipment for their operation such as desks for pupils and teachers, blackboards, seats and the special educational material for nursery schools. The additional equipment required (equipment and materials for chemistry and physics, radio and television sets, computers, telephones, facsimiles, photocopiers, etc.) are provided by the MoE but very soon, OSK will also be responsible for supplying them.

Quality and sufficiency of school buildings

During the last two decades there has been an enormous effort to satisfy the demand for school buildings. However, this is a problem that can not be fully accomplished and, for this reason, a number of school buildings are used in alternate morning and evening shifts, while additional buildings are hired from private owners and converted into school buildings.

During the 1994 survey organised by OSK, information was collected on school buildings regarding their construction characteristics and quality, correspondence to the technical requirements and regulations, etc.

The statistical analysis of all data collected has not been finished yet, but it is expected that its results will be very helpful during the development process of a new program for all school buildings in Greece. Furthermore, they will be used for checking the ability of the buildings' capacity to satisfy the new regulations concerning the ability of buildings to withstand earthquakes. A Ministry of Education Program is being prepared in which all the relevant repair and maintenance actions and the construction of additional rooms will be included in order to achieve the complete upgrading of school buildings.

Existing situation: classroom needs and planning process

During the last decade, various figures have been estimated concerning the number of classrooms required to satisfy fully the respective demand. However, these figures have not shown a rate of decrease, even though the number of pupils has decreased by a rate of 1-2 per cent annually due to a decline of births, and OSK continues to construct about 450-900 classrooms every year.

All the figures estimated are based on the existing legislation which sets the number of pupils per classroom at 30 in primary and 35 in secondary schools.

Only for the Attika Prefecture (*i.e.* mostly Greater Athens), from the recent survey organised by OSK, the following average figures have been estimated as to the number of pupils per class according to the different types of schools.

Number of pupils per class

Nursery school	21
Dimotikon (primary school)	22
Gymnasium (secondary school)	29
Lyceum	28
Integrated Lyceum	28
Technical and vocational Lyceum and schools	23
Evening Gymnasium and Lyceum	24
Special schools	7

These figures are considerably lower than those prescribed by the existing legislation. A special study will be conducted by OSK, using the data of the recent survey for estimating new and more accurate figures, for the requirements in school buildings and classrooms. The overall general situation, is as follows:

	Existing
Total number of schools in Greece	15 772
Total number of school buildings	11 223
Total number of classrooms in schools	62 298
Total number of public classrooms in Attica	13 240
Total number of public classrooms in Greece	42 896
Total number of pupils in Attica	459 339
Total number of pupils in Greece	995 877
Required	
Number of classrooms in Attica prefecture[1]	8 927
Number of classrooms in all other prefectures	13 219
Total number of classrooms in Greece	22 146

1. Laboratories and other rooms will be estimated according to the school size.

The above survey findings will be used for improving the planning process in OSK. The new OSK program for the next period of five years concerning the Attica prefecture predicts that a significant part of the needs in school buildings will be satisfied. This program has the following basic targets:

- all schools will operate only in morning shifts, especially nursery schools and Lyceum (since their pupils must prepare themselves for taking part in for the Panhellenic examinations for admission in the AEIs and TEIs);
- the school buildings will be used for additional occupation of pupils (drawing, dancing, sports, training, etc.) in the evening.

Repairs and maintenance

This issue is universally acknowledged to be of a major importance and, in Greece, it deserves better financial management given the high expenditure of repair and maintenance. Since the recent decentralisation reform funding comes from three sources:

- Ministry of Education to the Prefectures – Municipalities (or in the case of Attica from the Ministry of Education to OSK and then to Prefectures and Municipalities);
- from the Council of Europe loan funding to the Prefectures as described above;

– from the Ministry of Interior to the Prefectures and then as described above.

Because all this multiplicity of sources, and the occasional funding either from the Current Budget or the Capital Budget, it is not easy to estimate the total expenditure on repair and maintenance.

A possible indicator is the OSK accounts for the 1994 year where, from a total of roughly 2 955 schools in Attika, actual payments until October 1994 were Dr. 10 363 million for major repairs and maintenance (roof insulation, heating, paints, etc.) and it is estimated that at the end of December 1994 the amount totalled Dr. 12 billion.

Premises and facilities of higher education

The recent expansion of higher education had its natural implications on the demand for the required premises and facilities.

From a rough estimate of the existing facilities for universities in 1982, it can be concluded that the used built surfaces were then about 365 000 m2 which by the then attendant students of 92 174 makes a gross ratio of 3.9 m2 by student.

From another survey of 1990, it was estimated that the used built surface had risen to 1 729 000 m2 corresponding to a gross ratio of 14.7 m2 per student given the 117 769 number of students. Thus, it may be claimed that in about a decade there was an increase of 1 364 000 m2 or 370 per cent for university facilities.

The above increase may be analysed *a)* in extension of existing facilities; *b)* in construction of completely new ones; and *c)* in refurbishment of existing buildings of architectural and/or historical interest. Concerning the TEI's facilities it may be noted that, on the whole, their premises (which consist of large complexes in the outskirts of urban centres) were constructed during the 1970s and, in the following years they were suitably extended or, in the case of newly founded ones, new complexes were constructed.

With regard the universities, it must be noted that the establishment of such new institutions all over the country involved a host of critical decisions and challenges, some of which may be described in brief as the following:

– Decisions about the location of the institutions, either to be established completely in one area (in the form of campus or individual buildings integrated within the urban fabric) or allocated in different locations (*e.g.* islands, towns of a specific region) by separating groups of Departments or Faculties. Such examples may be found in the University of the Aegean which has located its departments in various islands of the North East Aegean (*e.g.* in Lesvos the Faculty of Social Sciences, in Khios the Department of Business Administration, in Samos the Department of Mathematics, and in Rhodes the Department of Primary Education) or in the case of the

Democritus University of Thrace which has established the Faculty of Law in the town of Komotini (Nomos Rodopi), the Faculty of Engineering in the town of Xanthi (Nomos Xanthi), the Faculty of Medicine and the Department of Education in Alexandroupoli (Nomos Evros), and in between Komotini and Xanthi the Departments of Physical Education and Athletics.

- The conservation of "heritage" buildings, through their acquisition, refurbishment and adjustment to modern space-norms for the university functions. Many new universities have re-used such unique (in their architectural or historical value) buildings in Crete, Thrace, the Aegean Islands, etc. Occasionally, the character of the "heritage" building may suit the kind of discipline that is to be housed there: in the case of the Ionian University in Corfu it was suggested that the Department of History would be accommodated in the former English Hospital built in 1836, during the English rule of the island, while the student library and offices for the teaching staff of the History Department would be housed in the former English barracks for officers. An interesting case is the University of Thessaly which adapted industrial buildings (out of use after the industrial decline of the town of Volos) for its Faculty of Production Sciences.
- The relation of the higher education institution with the general development of the urban centre or region in which it is to be located. Theoretically, there are socio-economic advantages in such location plans – but often the reality proves more complex. For example, if the student population faces unsatisfactory socio-cultural provisions in the local area, and if the university rules allow its non-regular attendance (as is often the case in Humanities), then the students tend to stay in the university town only during the exam seasons.
- The problem of starting these huge enterprises in a climate of financial limitations (as the recent decades of universal economic crisis). Such constraints have been considerably removed by assistance from EU funds and/or the new possibilities provided by recent legislation, of allowing higher education to start their own enterprises by utilising their expertise and new technologies in connection with local industries and firms in Greece or internationally.
- The need to employ flexibility and adaptability to make better use of the existing resources or of the future facilities in process of construction.

Other facilities

On the whole, student accommodation[12] is considerably undeveloped in Greece. The universities are gradually starting to construct their own halls of residence, but perhaps, the most organised provision comes from the National Founda-

tion of Youth (EIN), which since its establishment in 1960, has set-up 13 student halls (AEIs+TEIs), numbering approximately 6 000 beds. Furthermore, EIN plans accommodation for roughly 700 students.

Only universities have constructed accommodation for 4 683 students with halls of residence built from 1922 onwards. Further accommodation is anticipated for 1 114 students. In addition, the universities rent accommodation for 1 659 students. It is estimated that the construction cost per bed is Dr. 450 000.

Another kind of facility in development is the Prefecture Centres for the Support of Education (NKSEs) which will be located in the Prefecture capital towns and will accommodate a library for teachers, a computer centre, an office of school counsellors, and possibly a health care unit. The buildings which are to be used will be mostly existing buildings of historical or architectural interest with the necessary refurbishment.

Finally, it should be mentioned that 16 Regional Education Centres (PEKs) for the training of teachers and 60 School Laboratory Centres (SEKs) for the better management of laboratory provisions and teaching for most Technical and Vocational Education, already exist in Greece. The former are housed in school buildings and the latter either in existing buildings in the proximity of schools, or in rented and adjusted buildings or, of course, in school buildings themselves.

EQUITY ASPECTS OF EDUCATION: DISTRIBUTION OF EDUCATIONAL OPPORTUNITIES BY REGION AND SEX

VARIATION IN PRIMARY AND SECONDARY SCHOOL ENROLMENT

The national enrolment figures for the various levels of education were presented in Chapter 2 (Table 2.3). The current chapter explores aspects of educational equity. First, enrolment figures at the regional level are presented and differences in regional participation rates are identified. A further issue is differences among regions in drop-out rates for lower secondary education. And finally, this chapter turns to tertiary education and explores the distribution of students in relation to social background and sex variables. It should be mentioned at the outset that much of the discussion is necessarily general since we lack the data for primary and secondary education that would make more finely tuned observations possible.

Table 6.1 breaks down student enrolments by region and relates regional enrolment rates by educational level to total population of the region. Besides telling us about the distribution of enrolments, comparison to regional population can serve as a quasi-indicator of the "youthfulness" of the population of each region. That is, since from the national figures we know that the primary school level appears to enrol nearly all of the age cohort, the primary education ratios can serve as a baseline for other levels and as an indicator of the proportion of school age youths in the local population.

Crete has the highest ratio of primary school attendance relative to the general population. In part this reflects the "youthfulness" of the population of Crete. Indeed, Crete is the only area outside of Athens and Macedonia (Macedonia higher birth rate is due to the inclusion of Salonica which is the second largest city in Greece) where births outnumbered deaths in 1992 (see ESYE, 1994, p. 11). Most rural areas have primary school enrolment ratios far lower than those of Athens, indicating ageing populations. The lowest primary school enrolment ratios are observed for Central Greece and Peloponnesus.

Table 6.1. **Participation in non-tertiary education (1989-90) by geographical area and in relation to the general population (1991 census)**

Geographical area	Student enrolment		Students per 1 000 area residents[1]		
	Percentage of total		Pre-school	Primary	Secondary
Greater Athens	560 082	31.3	*11*	85	**86**
Macedonia	394 688	22.1	16	81	79
Central Greece	201 164	11.2	14	*76*	70
Peloponnesus	176 577	9.9	13	*78*	72
Thessaly	131 449	7.4	16	84	79
Crete	101 216	5.7	**17**	**90**	**80**
Aegean Islands	80 626	4.5	15	83	*69*
Epirus	59 283	3.3	16	80	79
Thrace	51 894	2.9	*11*	85	*58*
Ionian Islands	30 956	1.7	14	79	67

1. Highest rates marked in bold and lowest rates in italics.
Sources: Based on Skouras-Varnava *et al.* (1993, p. 8) and on ESYE (1994), *Population de fait de la Grèce au recensement du 17 mars 1991*, p. 11.

However, most rural areas have higher pre-school enrolment ratios compared to Athens: which indeed has the lowest pre-school enrolment ratio with the exception of Thrace. We note, however, that pre-school enrolment figures include only those centres supervised by the Ministry of Education (see also note Table 2.3). Crete once more has the highest enrolment ratio as regards the pre-primary level.

At the secondary school level one would expect to observe the same ratios to the general population as for the primary school level since overall, there were approximately equal numbers of students enrolled in primary and secondary education in the 1989-90 school year. This expectation holds for some areas such as Athens, Macedonia and Epirus, and to a lesser extent for the Peloponnesus and Thessaly. However in other areas the ratio of secondary school students drops sharply: Thrace (–25), the Aegean Islands (–14) and the Ionian Islands (–12). In these areas, fewer students continue their education up to the secondary level, implying lower social demand and less availability of secondary schooling in these regions. Interestingly, while Crete has a high secondary ratio overall, it is nevertheless 10 percentage points lower than the primary ratio.

These general observations can be taken a step further with regard to drop-out rates from "compulsory" lower secondary schooling. According to figures from a study in preparation by Paleokrassas *et al.* (1994), 8.9 per cent of all students enrolled in lower secondary education dropped out during the three years of gymnasium (1991-94). Nearly all of those who drop-out, do so in the first year

(7.3 per cent). Contrary to overall participation rates in secondary education, the drop-out rate is quite a bit higher among boys than it is among girls (10.4 vs. 7.4 per cent).

One of the most important findings is that the drop-out rate varies both among and within regions of Greece. Drop-out rates may be as low as 1 per cent or as high as 29 per cent. Of the 120 administrative areas covering all Greek secondary education, 19 reported drop-out ratios less than 5 and 17 per cent reported ratios greater than 15 per cent. In line with the previous analysis on participation rates, areas with drop-out rates over 20 per cent include certain areas of the Aegean Islands, the Ionian Islands, Crete and Thrace.

From all the previous analyses it is obvious that at the national level significant progress has been made over the past decades in the provision of compulsory and post-compulsory secondary education. The above analyses, however, make it equally apparent that both opportunities and needs vary between the different areas of Greece. *Identifying these needs raises a complex set of issues that extend beyond the educational system.* For example, Athens has among the lowest compulsory school drop-out rates but the greatest school overcrowding and incidence of double shifting, while Rethymno and the Dodecanese have some of the highest drop-out rates and no double shifting.[13]

Yet one of the most salient aspects of equality in educational opportunities has to do with student achievement. Unfortunately there is no systematic monitoring of students' attainments that would allow regional comparison and analysis of needs. Thus, for example, participation of schools in the experimental program of remedial intervention that was launched 1991 was on an *ad hoc* basis rather than targeted to the needs of communities (Skouras-Varnava and Kostakis, 1992).

TERTIARY EDUCATION

At the tertiary level it goes without saying, that demand far outstrips supply in the Greek educational system. Over the past decade (1982-92) an average of 133 723 candidates sought entrance to tertiary education every year, and about 44 210 or 33 per cent each year were successful (Skouras-Varnava *et al*, 1993, p. 26). The inability to satisfy social demand means that equity considerations are often focused at the tertiary level rather than at lower levels of education. Recent data on the social background of university students entrants in 1989-90 shows that the largest constituencies are offspring of Technicians and Workers (7 000), Clerical Workers (6 000), and Professionals (5 000) (rounded figures from Skouras-Varnava *et al.*, 1993, p. 32). These cursory figures would suggest overall stability in educational opportunity by social background despite the expansion of university and non-university tertiary education over the last decade (see Table 6.2).

Table 6.2. **Social background of students in university, 1970-90 and educational opportunity index[1]**

Father's occupation	Percentage			Opportunity index[2]		
	(1) 1970-71	(2) 1980-81	(3) 1989-90	(4) 1970-71	(5) 1980-81	(6) 1989-90
1. Professionals	10.7	16.1	19.2	2.3	2.7	1.8
2. Managers	2.1	0.8	0.7	1.3	0.3	0.3
3. Clerical	14.0	18.0	21.8	2.8	3.1	2.7
4. Trades	13.0	14.8	14.2	1.5	1.6	1.0
5. Services	3.4	5.2	5.2	–	–	0.6
6. Farmers	27.0	23.7	11.3	0.6	0.5	0.5
7. Technicians/Workers	17.9	21.9	25.3	0.9	1.0	0.7
8. Other	10.3	3.6	2.4	–	–	–

1. Ratio of students in various categories to economically active males.
2. Indices in columns 4 and 5 are based on economically active males aged 45+, whereas column 6 is based on *all* economically active males.

Sources:
Column 1: Kintis in Kassotakis (1987, p. 25).
Column 2: Kassotakis (1987, p. 25).
Column 3: Estimated with rounded figures from Skouras-Varnava *et al.* (1993, p. 32).
Column 4: Kassotakis (1987, p. 22).
Column 5: *Ibid.*
Column 6: Estimated from Skouras-Varnava *et al.* (*ibid.*), and ESYE, *Labour Force Survey*, 1990, Economically active population by occupational category.

Women are equally represented in higher education overall; though the enrolment of women varies markedly by school or field. Women constituted 50 per cent of all university students in 1991-92 and 46 per cent of the student body of Technological Education Institutes (MoE, 1994, pp. 68, 81). Interestingly while 56 per cent of university students were making normal progress toward their degrees in 1991-92, this figure increased to 61 per cent for women students (*ibid.*). Certain schools and faculties, however, enrol more of one sex. Faculties where over 60 per cent of enrolment (1989-90) is female are: Philology/Philosophy (84 per cent), Education (82 per cent), Law (64 per cent), and Social Sciences (64 per cent); whereas faculties where over 60 per cent of the enrolment is male are: the Polytechnic (75 per cent), Agronomy (66 per cent) and Physical Education (63 per cent) (Skouras-Varnava *et al.*, 1993, p. 33). Notably, Greek women make up 41 per cent of the student body in the Science Faculties (*ibid.*).

EFFICIENCY ASPECTS OF THE EDUCATION SYSTEM

INTERNAL EFFICIENCY

Curricula and Educational Technology

The nursery and primary school curriculum have been entirely revised after 1981. New subjects (*e.g.* environmental studies, health education and civil education) were introduced into the primary school curriculum. Since 1987-88, the teaching of foreign languages has also been available in a great number of primary schools. In the same year specialist secondary school teachers of arts and crafts and physical education undertook teaching in primary schools. In addition, all primary school textbooks were replaced. The methodology of teaching and the evaluation of pupils changed as well. The numerical marking system was supplemented by qualitative profiling evaluation techniques. However, pupils moved to the next grade regardless of their performance. Supplementary support for pupils with learning difficulties was provided in some cases.

Despite the educational reforms which have taken place recently, general education curricula still maintain, to a large extent, their academic orientation. Indeed, the whole school system is marked by its authoritarian and formalistic character. Many Greeks complain about the quality of education offered to young people and especially about their so-called linguistic poverty.

Curriculum development is a process that is carried out at a national level. Under the auspices of the Pedagogical Institute (PI), task forces that are specific to subject and level work out the basic curricula. These task groups, or working committees, are composed of members of the Pedagogical Institute. The resulting curriculum is further developed and refined by the Pedagogical Institute. Final approval rests with the MoE. Curricula are officially adopted through Presidential Decree and then published in the government newspaper. Curricula are disseminated to each school either through the local directorates or through the Ministry's Educational Books Publishing Organisation (depending on the specific form of publication).

Approximately the same process applies in the case of marginal adjustments to curriculum. These marginal changes are more or less a continuing process. Information on areas of the curriculum or textbooks that are problematic is acknowledged through the Annual School Advisors' reports. It is the responsibility of the Pedagogical Institute to make these changes which are then disseminated by circulars or decrees depending on the extent of the changes.

Directly linked to curriculum is the content of the textbook. With reference to instructional material there is a standard textbook for each subject. This is companioned by a teacher's book (manual) and usually by a work book and an assessment test booklet. All student receive the standard books free of charge. The Pedagogical Institute has the responsibility of developing the textbooks with task forces of specialists in each subject and educators.

Information on necessary changes to textbooks and curriculum are gathered from the annual School Advisors' reports. Depending on the extent of the problem, either marginal adjustments are made which are disseminated through circulars or committees are nominated to work out new books and curricula.

Informal diagnostic testing is also linked to textbooks at the primary level since formative review tests accompany the standard textbooks.

There is no official requirement for updating of curricula, but in effect it seems that major revisions to curricula have occurred every ten years more or less. On the other hand, small adjustments to curricula and textbooks occur more or less continuously at the recommendation of the Pedagogical Institute.

A major revision of curricula is currently underway. The Pedagogical Institute has the responsibility of proposing the task groups and co-ordinating the work. The major thrust of this reform is to develop a comprehensive curriculum across both levels of compulsory education that is better co-ordinated between levels, *e.g.* removing redundant and outdated material, introducing new subjects, and more clearly specified in terms of standards, *e.g.* the comprehensive settings of educational objectives.

Many significant innovations have been initiated at the compulsory education level. The curriculum has been renewed and enriched with new subject areas, the school working hours have been adjusted to the school conditions, school work itself has been better organised. The same evaluation procedure has also been greatly improved. For instance, subject areas such as Art and Physical Education are now taught by subject specialists in the most, of the four – or more (*polythesia*) post schools. The compulsory teaching of English as a second language – starting in the 4th grade has been applied almost to all "polythesia" schools.

With regard to the teaching methods an emphasis is put on both the students' active participation in the teaching procedure and their critical thinking.

Special care for the improvement of the evaluation system during the compulsory education years (the first nine years of education up to the Lyceum). The establishment of an evaluation of the quality of teaching has only recently begun. A Section on Evaluation was stabilised in the Pedagogical Institutes in order to coordinate the educational evaluation. A significant move to that goal is the introduction of the following.

Descriptive evaluation

The establishment of the primary school descriptive evaluation makes it possible for the educators to keep themselves, the students and their parents informed about the effectiveness of their efforts at school, their abilities and inclinations as well as possibly what competencies have not acquired in certain sectors.

The class teacher keeps a record book in which a descriptive evaluation of each student is recorded, in accordance with the Pedagogical Institutes' instructions.

Thus the record book – which is only to be used within the school – becomes a source of information for all involved: the students, their parents, the class teachers, the School Principal, and the School Counsellors as well.

Marking scale

For the first and the second grade students only descriptive evaluation is used.

In the third and in the fourth grade, a descriptive evaluation, as well as a quantitative evaluation system, is used to express four levels of achievement: Excellent (A), Very good (B), Good (C), Fair (D).

The Fair (D) indicates below average achievement. It describes the students who have serious learning difficulties. Special reinforcement programmes are provided for them. This special reinforcement is given mainly to the first and second grade students.

For the fifth and the sixth-grade-students, beside a descriptive evaluation, a quantitative one is used to express four levels of achievement: Excellent (9-10), Very good (7-8), Good (5-6), Fair (4 and under).

For this last category must be offered special reinforcement programmes to meet the needs of these students.

Educational technology

The educational technology, integrated into the various levels for maximum efficiency of the education system, is very limited. Moreover, it does not correspond in most cases, to the objectives, content and methodology of the curriculum

applied. Educators however, are becoming increasingly aware of the contribution of educational technology, to the efficiency of the educational process.

A number of teachers at nursery and elementary schools in particular utilise educational technology. At the other levels such utilisation is limited. The application of appropriate curriculum design processes are needed in order to integrate educational technology into the curriculum. In addition, there is a need for teacher-training programmes, as well as for the application of appropriate educational administration policies in relation to educational technology.

Educational standards

Types of educational standards and how they are set

In the Greek education system, several types of educational standards are in effect which can be distinguished by the sectors to which they apply and by their conceptual underpinnings.

For primary and secondary education, the content of the national curriculum defines educational standards. The national curriculum specifies the body of knowledge and skills that all students should be exposed to. The approach to setting standards is identified with a cultural ideal model that draws strongly on the history and tradition of Greece. This model focuses on the knowledge that constitutes the ideal of an educated person and on the skills necessary for him/her to participate in contemporary society.

For certain subjects that have been the object of more recent curricular reforms, the curriculum is based on the level of competence that the average student should acquire. However, *the curriculum and standards overall, do not focus on learning outcomes and goals but rather on specifying content.*

Standards/curricula for secondary technical-vocational education are, in addition, shaped by a job-requirements approach. For those curricular areas and subjects which correspond to occupational specialisations, curriculum content is defined by the competencies required to successfully perform tasks in the respective fields.

Yet another type of educational standard refers to cut-off standard for entrants to tertiary education. The ability of tertiary institutes to take in students is limited, so that every year the Ministry announces the number of places available in each tertiary school. Candidates sit for a national tertiary education entrance examination and they are ranked according to their scores. When the number of openings is filled, the remaining candidates with lower scores are excluded. Thus standards are defined by the number of available places and not by a required level of competence among entrants.

Since tertiary education entrance examinations are the only form of external examination at a national level, a great deal of public discussion about standards and quality in education accompanies publication of the results. It is not often recognised, however, that the results of this competition have little to say about the actual levels of achievements and competence among the candidates.

Implementing and monitoring standards

Since the national curriculum and the school timetable are compulsory for both public and private education, the implementation of educational standards can be presupposed. Furthermore, a standard textbook based on the national curriculum and approved by the Pedagogical Institutes is compulsory for each subject so that in effect official standards prescribe a great deal of classroom practice.

Official decrees define the form and weight of yearly summative examinations in the secondary schools, but within this framework, classroom teachers define the content of examinations. Informal diagnostic testing is linked to the textbooks at the primary level since formative review tests accompany the standard texts. School leaving certificates for the secondary education levels are also based on end-of-year assessments conducted by classroom teachers.

Thus the monitoring of standards at the national level is identified with a process of regulating inputs in the form of standard curricula and textbooks. In evaluating the outcomes of education, individual classroom teachers are given a great deal of freedom; but there is no parallel system in place that would make possible the monitoring of progress towards meeting standards and would allow comparison of the regions of Greece. Moreover, the collection of data on educational inputs (such as enrolments and resources) is not geared to the purposes of monitoring, since publication of results is chronologically out dated. For example, the most recent published yearbook of education statistics refers to the 1984-85 school year (see Chapter 1).

Student flows of primary and secondary education

Table 7.1 gives the flow of the students of primary and secondary education in the Greek education system from 1970-71 to 1997-98, referring to 1 000 students, with reference to students who started the primary education at academic years 1970-71, 1975-76, 1980-81 and 1985-86.

Table 7.1. **Student flows of primary and secondary education**

A	Sixth	A'	C	A(1)	C(1)	Grad	Grad(1)
(70/71)	(75/76)	(76/77)	(78/79)	(79/80)	(81/82)	(1982)	(1982)
1 000	869	745	615	461	382	354	78
(75/76)	(80/81)	(81/82)	(83/84)	(84/85)	(86/87)	(1987)	(1987)
1 000	933	1 043	758	612	417	448	225
(80/81)	(85/86)	(86/87)	(88/89)	(89/90)	(91/92)	(1992)	(1992)
1 000	987	1 108	858	621	482	463	310
(85/86)	(90/91)	(91/92)	(93/94)	(94/95)	(96/97)	(1997)	(1997)
1 000	994	1 086	923	652	550*	539*	323*

Notes: A: first form of the primary education.
Sixth: sixth form of the primary education.
A': first form of the secondary education.
C: third form of the secondary education.
A(1): first form of the general lyceum.
C(1): third form of the general lyceum.
Grad: students who finish the general lyceum.
Grad(1): students who finish the other types of lyceum.
*: estimates.
Source: Stamelos (1993).

Student flows in higher education

The following figures show the flow of students and teaching staff of the AEI and TEI institutions (Mastoraki and Afentaki, 1993, 1994).

Note: In what follows the term "student" refers to anyone who has entered a higher education institution and has not obtained a degree yet. The term "active student" refers to a student who has been at the institution for a period that is required by the program.

AEI

Total number of students for the academic year 1992/93

Men: 105 272; Women: 107 473

Total number of "active" students for the academic year 1992/93

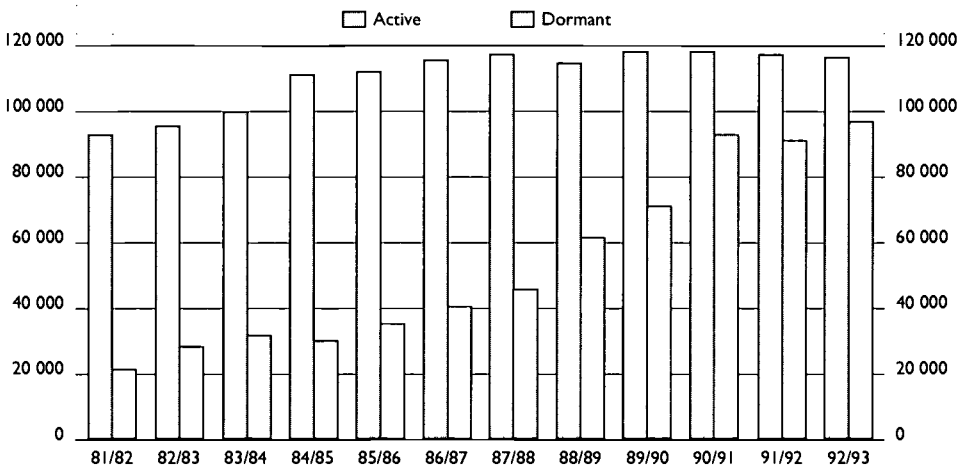
Men: 53 136; Women: 63 431

Total number of graduate students for the academic year 1992/93

Men: 8 268; Women: 11 143

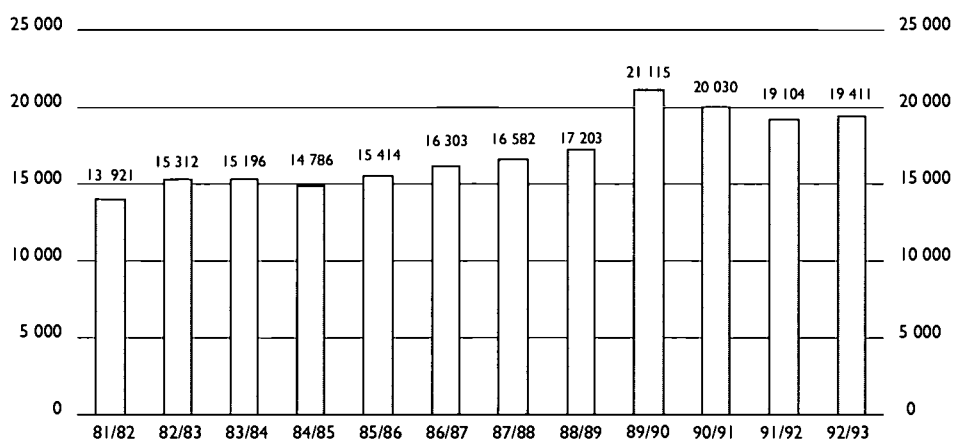
Increase of graduates in academic year 1992/93 compared with the academic year 1981/82: 39%

◆ Figure 7.1. ***Number of students in universities***



Source: Mastoraki and Afentaki (1993, 1994).

◆ Figure 7.2. ***Number of students graduated from universities***
(for academic years 1981/82 to 1992/93)



Source: Mastoraki and Afentaki (1993, 1994).

Increase of "active" students in academic year 1992/93 compared with the academic year 1981/82: 28%

Department of AEIs where women have more than 90% for the academic year 1992/93

Kindergarten: 95%

French literature: 93%

English literature: 90%

Department of AEIs where men have more than 85% for the academic year 1992/93

Mechanical engineering: 90%

Electrical engineering: 89%

Electronic engineering: 88%

TEI

Total number of students for the academic year 1992/93

Men: 44 868

Women: 40 200

Total number of "active" students for the academic year 1992/93

Men: 27 573

Women: 28 757

Total number of graduate students for the academic year 1992/93

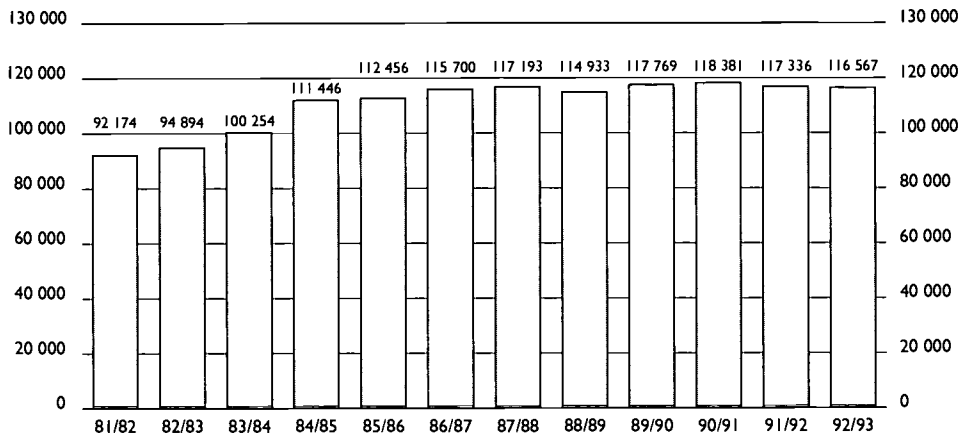
Men: 3 458

Women: 4 054

Increase of students in academic year 1992/93 compared with the academic year 1984/85: 11.8%

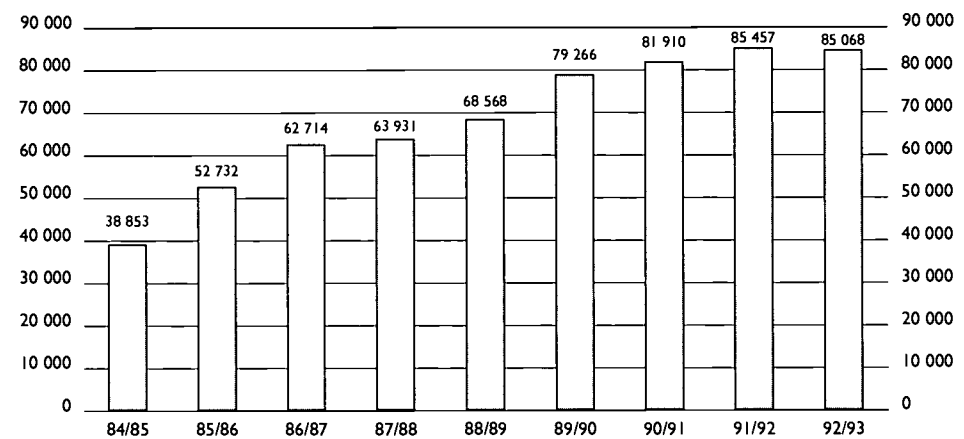
Increase of graduates in academic year 1992/93 compares with the academic year 1984/85: 29%

◇ Figure 7.3. ***Number of "active students" in universities***
(for academic years 1981/82 to 1992/93)



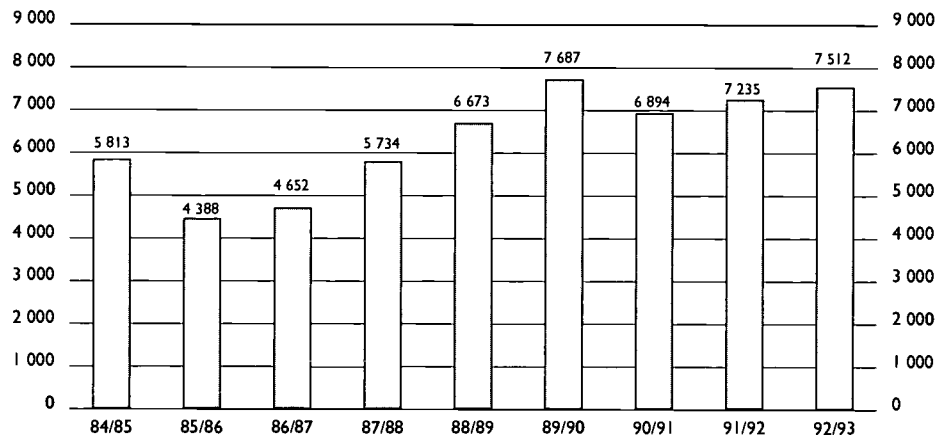
Source: Mastoraki and Afentaki (1993, 1994).

◇ Figure 7.4. ***Number of TEI's students***
(for academic years 1984/85 to 1992/93)



Source: Mastoraki and Afentaki (1993, 1994).

◆ Figure 7.5. ***Number of students graduated from TEI***
(for academic years 1984/85 to 1992/93)



Source: Mastoraki and Afentaki (1993, 1994).

Teaching staff flows in higher education

AEI

Total number of the teaching staff for the academic year 1992/93

Men: 6 149

Women: 2 345

Increase of teaching staff in academic year 1992/93 compared with the academic year 1981/82: 13%

TEI

Total number of the teaching staff for the academic year 1992/93

Men: 1 660

Women: 708

Total number of the non-permanent staff for the academic year 1992/93

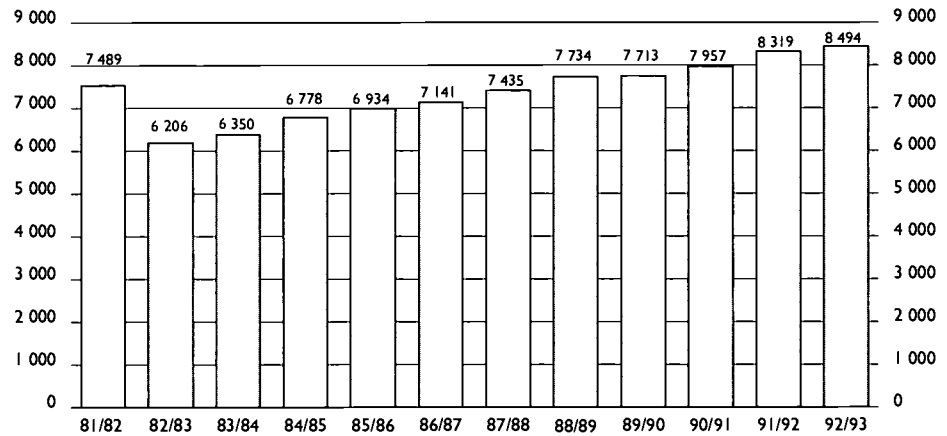
Men: 1 754

Women: 1 453

Increase of teaching staff in academic year 1992/93 compared with the academic year 1984/85: 54.8%

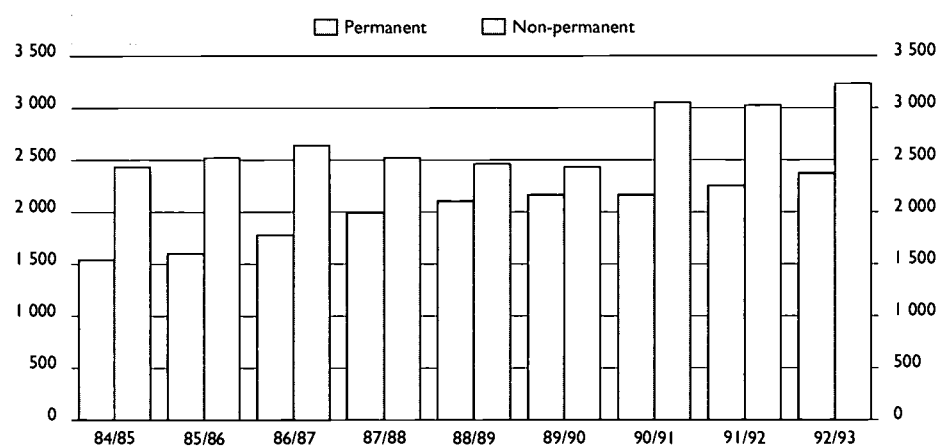
Increase of non-permanent staff in academic year 1992/93 compared with the academic year 1984/85: 32%

◆ Figure 7.6. ***Teaching staff in universities***
(for academic years 1981/82 to 1992/93)



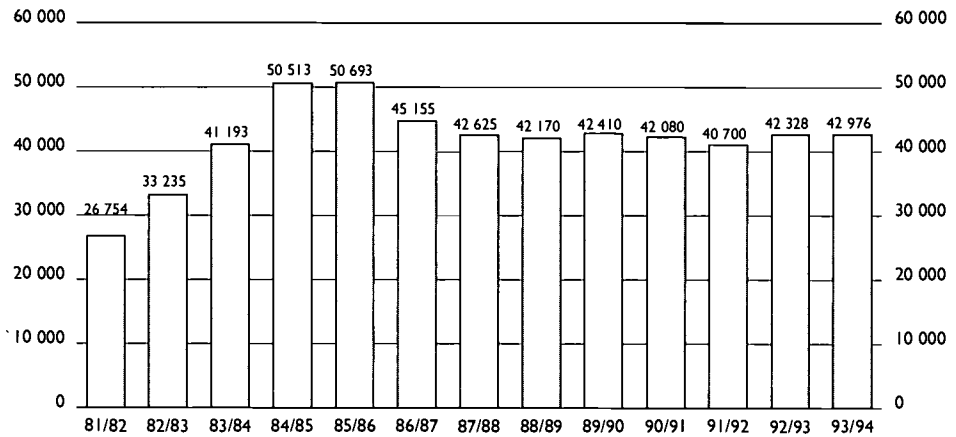
Source: Mastoraki and Afentaki (1993, 1994).

◆ Figure 7.7. ***Permanent and non-permanent staff for TEI's***
(for academic years 1984/85 to 1992/93)



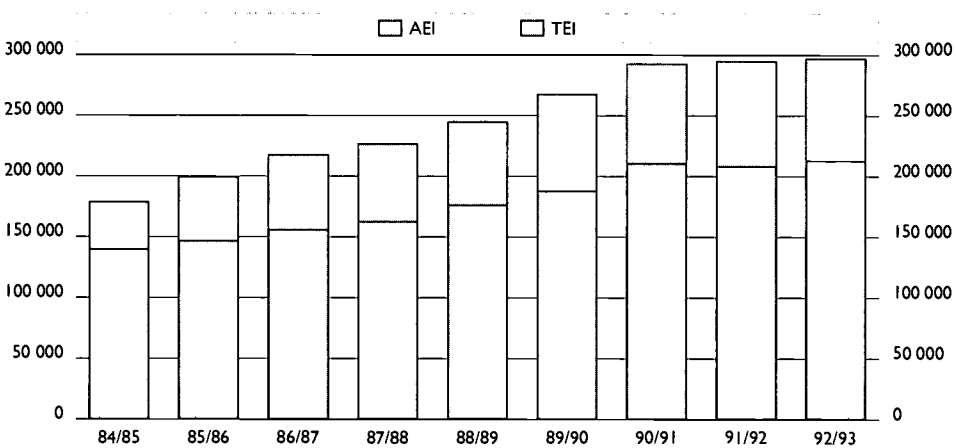
Source: Mastoraki and Afentaki (1993, 1994).

◆ Figure 7.8. ***Number of entrants in AEIs and TEIs***
(for academic years 1981/82 to 1993/94)



Source: Mastoraki and Afentaki (1993, 1994).

◆ Figure 7.9. ***Number of students in AEI and TEI***
(for academic years 1984/85 to 1992/93)



Source: Mastoraki and Afentaki (1993, 1994).

EXTERNAL EFFICIENCY

Education and employment

Post-war Greece, up until the beginning of the 1970s, faced a serious problem of structural unemployment. The chronic surpassing of the job-seekers by the supply of work (*i.e.* greater supply of work than demand) was gradually diminished as a result of the following reasons: *a*) the steady high economic development which prevailed during the post-war period until 1973, and which was concentrated mainly in the traditional work intensive sectors, such as textiles, food, construction, transportation and tourism; *b*) the substantial emigration, which accelerated in the 1960s and took away in total about one million people, mainly in their productive age; and *c*) the general expansion of the education system and especially that of secondary education participation.

Employment was kept at an increasingly high level while unemployment was fairly low until the end of the 1970s (end of the second oil crisis), even though since 1974 the emigration flow rate has reversed and there has a net repatriation. Nevertheless, during the beginning of the 1980s, unemployment began to increase again and in 1984 reached 8.1 per cent, a level which remained until 1991. From this year on, unemployment displays another increase. This is obviously due to the economic stagnation which has characterised the economy since 1979. The 1.3 per cent increase of the NGP in the 1980s, is concentrated mainly in the services sector, while industrial production remained stagnant and decreased during the first years of the 1990s. In addition there was an inflow of workforce from abroad, due to repatriation of Greek nationals from the Soviet Union in Northern Epiros, etc. Finally, the currently high unemployment rate may also be attributed to the increasing participation rate of women in the economy, who claim the largest unemployment share. It is also interesting to note the special characteristics of unemployment. It seems that the unemployment is found mainly in the urban areas. One out of two unemployed (47.1 per cent) is found in the Attica Prefecture and this percentage is much higher for those who are over 30 years old (Kanellopoulos, 1994). In contrast, other regions such as Southern Aegian, Crete and Ionian Islands display unemployment rates around 4 per cent which may be considered fractional. High unemployment rates in 1991 are found in Epiros (9.9 per cent), Attica (9.8 per cent), Northern Aegian (8.9 per cent) and Western Greece (8.6 per cent). With regard to age, unemployment is concentrated mainly among the young. Almost one in three unemployed (31.1 per cent) is found in the age group 20-24 years. It is interesting to note that, unlike the trend in most of the other countries, the unemployed rate and the number of unemployed are decreasing steadily as the age increases, which means that unemployment is mainly attributed to hiring deficiencies rather than increases in the release of workers.

Graduate unemployment, mismatch

With regard to graduate unemployment it must be noted that the fact that the unemployed youth (*i.e.*, all those who have not had a job previously) in 1981 were 29 per cent of all unemployed, while in 1989 they were 52.4 per cent! In contrast with other European countries, youth unemployment is concentrated among secondary education graduates (12.9 per cent), as well as to the two categories of tertiary education graduates (9.8 per cent of TEI and 6.6 per cent of universities), while it is characteristically lower for the rest (Kanellopoulos, 1994).

The unemployment rates of university and TEI graduates raise more serious questions regarding the benefit of tertiary education and the context of their curricula. It is evident that more and more of these graduates are concentrating on gaining a civil service position and until they are successful they remain unemployed, underemployed or mismatched. Their aspiration, considering the prolonged economic recession, may be considered as a rational strategy. However, it results in a waste of human resources and into delayed economic recovery. Nevertheless, during the last three years because of the implementation of a conservative policy regarding wages and job creation in the public sector, especially among executives, this trend seems to be diminishing.

Table 7.5 shows the employment structure in accordance with economic activity and the educational level of the employed. As it may be seen, sectors of economic activity such as industry and agriculture, employ manpower with relatively lower educational background. In contrast, the services sector and especially civil service and banks attract high percentages of university graduates. Some figures in this table are characteristic of the situation. Out of 100 employed university graduates, 59 work in "other services" (the majority are civil services), 17.7 in banks-insurance, 7.4 in industry and only 0.7 in the primary sector (agriculture, mines). In contrast, those who did not complete primary education (six years) are found in large numbers in agriculture (62.2 per cent), in industry-manufacturing (9.7 per cent) and commerce-hotels-restaurants (10.6 per cent), and only 6.5 per cent work in services. If one considers the fact that the largest banks are controlled by the State and this is also true for transportation and communications (Tel. Co., Railroad, Airline) it is estimated that at least 80 per cent of university graduates are employed in the public sector, in one way or another. Finally it should be mentioned, that this trend toward the public sector for higher educational levels is more common for women.

Manpower planning

It has been documented consistently in the past (*e.g.* Psacharopoulos and Soumelis) that any efforts to implement manpower planning are overturned by the prevailing social demand for higher education and consequently, for all academic paths which lead to it. In addition, all formal educational advisory bodies, entrusted by the state to propose rational manpower planning strategies, remain generally inactive and strangulated by a bureaucratic central administration. Such bodies which include all educational stakeholders and the social partners, as well, are:

For primary and secondary education:

- the National Council of Education (Law 1566/85);
- the Prefectural and regional education committees (Law 1566/85);
- the Pedagogical Institute (Law 1566/85);
- the Centre for Economic Planning and Research.

For tertiary technological education:

- the National Council for Education (Law 1566/85);
- the Council for Technological Education (Law 1404/83);
- the Institute for Technological Education (Law 1404/83);
- the Centre for Economic Planning and Research.

For university education:

- The National Council for Education (Law 1566/85);
- The Centre for Economic Planning and Research.

In addition, manpower planning has been hindered by the ineffectiveness, so far, of the school-vocational orientation program (SEP), established by Law 1566/85, and by the inelastic teacher recruitment and promotion-tenure system. The SEP program, in spite of good planning and support has not been able to win any credibility among the teachers, students and their parents, and the public in general. On the other hand, the inelastic vocational education teacher recruitment-promotion-tenure system does not allow any drastic changes, especially in occupation specific curricula and courses, thus making very difficult any linking of the education system with the labour market (for more details on this matter see Chapter 3).

The consequences of the overturning of manpower planning strategies are evident and have already been manifested in Table 7.5. This sectoral classification of employment by educational level, determines the limited possibilities that exist for organisation and development of the Greek industry and agriculture in order to compete effectively internationally. The civil service, on the other hand, limits its activities to bureaucratic procedures at the expense of producing exportable prod- 117

ucts. This manpower allocation reflects the development level and structure of the Greek economy, which is characterised by many small production units with traditional activities, unable or unwilling to hire managerial and technical personnel with higher educational background, and by an extended and growing services sector, especially the public sector.

Finally there is a need, if the country is expected to participate on equal terms in the European Union, for the education system to become more efficient, more effective and more flexible in order to generate individuals with adequate up-to-date knowledge and key qualifications in accordance with the requirements of the labour market. The absence in the education system of a mechanism which monitors developments of the labour market, makes this task even more difficult to be fulfilled.

Rates of return of the educational investment

There have been several attempts to provide answers to a paradox regarding the expansion of education in Greece. This is the phenomenon according to which a strong demand for higher education coincides with low private returns to educational investment. As it has already been illustrated in this report, the educational level of the population has increased significantly, manifested by a dramatic reduction of those with less than primary education in the composition of the labour force and a tripling of those with university degrees. With a competitive labour market, one would expect a fall in the earnings differential associated with higher education, provided there are no shifts to offset the demand for labour with higher education qualifications. The evolution of earnings differentials by level of education as estimated in a recent study (Lambropoulos and Psacharopoulos, 1992) shows that the earnings advantage of higher education graduates has been reduced to nearly half its size between 1960 and 1987 (see Table 7.2).

However, since the majority of university graduates are employed in the public sector, one wonders whether this decline is the result of a public-sector incomes equalisation policy, rather than market forces.

Additional data which make a distinction between the private and public sector (Table 7.3) show that the higher education earnings advantage of university graduates has been squeezed much more in the public than in the private sector. This could mean that competitive employers continue to value the productivity differential associated with employing a higher education graduate rather than a secondary school graduate.

The rates of return to investment in higher education has fallen in the 1977-85 period. Demand for university graduates has not kept up with the increased supply documented earlier, hence the returns to higher education have fallen, regardless of the sector of employment.

Table 7.2. **Earnings differentials by educational level, 1960-87**

Educational level	1960	1964	1975	1977	1981	1985	1987
Primary	81	77	106	88	101	95	83
Secondary	100	100	100	100	100	100	100
Higher	204	183	201	123	162	138	125

Note: Index base: secondary education = 100
Source: Lambropoulos and Psacharopoulos (1992).

Table 7.3. **Earnings differentials by educational level, private and public sectors**

Educational level	Academic year 1977		Academic year 1985	
	Private	Public	Private	Public
Primary	86	97	99	93
Secondary	100	100	100	100
Higher	162	153	143	134

Note: Index base: secondary education = 100.
Source: Lambropoulos and Psacharopoulos (1992).

Table 7.4. **Evolution of the educational level and rate of return to education, 1977-87**

	1977	1981	1985	1987
Mean years of schooling				
Population	6.4	6.9	7.4	7.7
Labour force	6.5	7.9	9.3	10.0
Percentage with higher education				
Population	4.6	5.9	7.1	7.7
Labour force	8.6	10.9	13.2	14.4
	Rate of return to education (%)			
Overall (Mincerian)				
Private sector	6.8	4.3	3.9	n.a.
Public sector	7.3	4.0	3.3	2.7
Higher education				
Private sector	10.5	13.6	10.2	n.a.
Public sector	9.8	10.7	7.4	3.3

n.a.: not available.
Source: Lambropoulos and Psacharopoulos (1992).

Table 7.5. **Employment by sector of economic activity and educational level, 1990**

In thousands

	Total population	Labour force	Unemployed	Participation of labour force %	Unemployment %
Total 14+	8 146	399.8	280.8	49.1	7.0
Post-graduate title	19.5	16.7	0.9	85.6	5.4
University degree	578.5	459.0	30.1	79.3	6.6
Attended or are attending university	170.8	27.5	6.8	16.1	24.7
Non-university tertiary ed. degree	290.4	239.8	23.4	82.6	9.8
Secondary education leaving certificate	1 475.9	877.7	110.9	59.5	12.6
Certificate of lower secondary education	938.0	352.2	31.9	37.5	9.1
Primary school leaving certificate	3 410.5	1 727.4	68.1	50.6	3.9
Certificate of 1st grade of primary school	873.2	236.3	6.5	27.1	2.8
No school at all	388.5	63.1	2.1	16.2	3.3

Absolute number of employees (in thousands)

	Agriculture	Mines	Industry	Electrical energy	Construction works
Total 14+	889.2	22.6	719.8	36.5	252.3
Post-graduate title			1.3	0.1	0.1
University degree	2.7	0.6	31.9	2.7	4.2
Attended or are attending university	0.3		2.8	0.2	0.2
Non-university tertiary ed. degree	3.7	0.9	41.6	5.5	7.1
Secondary education leaving certificate	33.4	3.3	165.1	16.0	29.4
Certificate of lower secondary education	39.2	1.8	98.1	3.8	30.4
Primary school leaving certificate	626.1	13.9	352.0	7.4	164.4
Certificate of 1st grade of primary school	142.8	1.8	22.3	0.6	14.9
No school at all	41.0	0.2	4.7	0.1	1.8

	Trade Hotels	Transportation Communication	Banks Insurance	Other services	Government Services
Total 14+	653.9	249.4	184.1	709.5	226.9
Post-graduate title	1.7	0.4	3.2	9.1	1.5
University degree	42.2	14.8	76.1	253.2	59.2
Attended or are attending university	5.5	1.1	3.7	6.9	2.0
Non-university tertiary ed. degree	33.7	29.2	17.7	76.9	23.0
Secondary education leaving certificate	206.0	73.7	67.5	171.8	89.6
Certificate of lower secondary education	72.1	25.1	5.9	43.7	15.8
Primary school leaving certificate	259.9	96.6	9.2	129.4	33.6
Certificate of 1st grade of primary school	24.3	7.4	0.7	15.0	1.8
No school at all	8.5	1.1	0.1	3.3	0.4

	Education	Medical services	Research	Did not answer	Total number of employed
Total 14+	180.1	123.1	3.6	1.5	4 252.5
Post-graduate title	4.7	2.0	0.4		15.8
University degree	138.0	38.0	1.6	0.3	428.9
Attended or are attending university	2.3	0.4	0.1		20.7
Non-university tertiary ed. degree	10.8	24.9	0.1		216.4
Secondary education leaving certificate	12.7	24.8	0.6	0.6	766.8
Certificate of lower secondary education	1.8	7.2	0.1	0.1	320.3
Primary school leaving certificate	7.5	24.1	0.6	0.5	1 659.3
Certificate of 1st grade of primary school	1.6	1.6			229.4
No school at all	0.5	0.1			60.9

Source: Kanellopoulos (1994).

Data exclusively from the public sector show a further deterioration of the returns to education in 1986 and 1987. According to the Mincerian estimate, the overall private return to investment in education for those employed by the public sector is approximately 2-4 per cent. Possession of a university first degree is associated with the (relatively) highest rate of return, ranging from 3 to 5 per cent. The tertiary non-university education (technological institutes) is associated with returns below 2 per cent. Moderate returns are also shown for those who hold postgraduate degrees.

Given the above figures, one might expect that the demand for a university degree would be extremely low. However, as it has already been reported elsewhere in this report, higher education enrolment trends show exactly the opposite. The strong demand for higher education has found an outlet abroad. The number of Greek students in foreign universities between 1970 and 1982 had the world record (after Hong Kong) in terms of the ratio of students studying abroad relative to domestic enrolment. Foreign enrolment started to decline since 1982, reflecting perhaps the deteriorating economy and the increase in costs of European universities, especially in the UK. This decline became even stronger in the near past (Lambropoulos and Psacharopoulos, 1992).

Another interesting table from the study by Lambropoulos and Psacharopoulos (Table 7.4) is used to conclude this chapter. It presents a grand summary of rates of return over time, in juxtaposition with the changes of the educational composition of the population and the labour force. The trend is clearly downward. As educational intensity increases, the relative "price" of education – as measured by the rate of return – falls. And yet, despite the spectacular drop in the profitability of educational investment, individual demand substantially exceeds the availability of places (see also Table 7.5).

NOTES

1. It is interesting to note that in 1987, the 110 sections corresponded to a total staff of 1 050 (850 employees and 200 teachers) while in 1995, the 113 sections corresponded to a total staff of 896 (616 employees and 280 teachers). This reverse proportional trend has undoubtedly consequences for efficiency.
2. Conclusions of the Committee on Education (1958) and Laws 3971/1959 and 3973/1959. Among the provisions of these laws, at the post-secondary level, two schools for sub-engineers were also established.
3. The reform agenda was quite comprehensive and extended to technical-vocational and higher education; however, the government headed by George Papandreou was short-lived and only the bill on the reorganization of general education had time to be passed (Karmas *et al.*, 1986, p. 23).
4. Furthermore, women over 50 years of age comprise 56 per cent of the group with less than primary schooling (estimated from ESYE, 1991 Census, unpublished data).
5. See 1980 Background Report published by the Ministry of Education (Table 2.10, p. 53). Those figures refer to the population over 10 years of age, while we focus on the 25 to 64 group; however, the same trends hold with this wider specification. According to the 1991 Census, tertiary graduates are 9 per cent of the total population over 10 years of age, and those who have not completed primary education, 17 per cent of the total.
6. Estimated from ESYE, 1991 Census (Unpublished data: "Economically Active and Inactive by Sex, Age and Area").
7. 58 073 female teachers in non-tertiary formal education, 1989-1990. Figures from Skouras-Varnava (1993, p. 39, and Table 2).
8. Estimated from figures in Rangousis (1994).
9. 42 187 new entrants in 1992 and 149 000 in the 18-year-old age cohort. Figures from Skouras-Varnava (1993, p. 26) and from ESYE, 1991 Census, unpublished data.
10. Figures on total students registered in tertiary education in 1991-92 from the Second Community Support Framework (Ministry of Education, 1994, p. 68) and on 17-21 age cohort size from ESYE, 1991 Census, unpublished data.
11. Institutionalised training is the training in which the norms defining it are subject to consensus on the part of the social partners (in this case consensus imposed by law).

12. There exist also a number of "pupil homes" administered by the Orthodox Church of Greece.
13. Figures on drop-outs from Paleokrassas *et al.* (1994) and on double shifting from the Second Community Support Framework (Ministry of Education, 1994, Table 26).

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INTRODUCTION

For the purposes of this review of educational policy in Greece, we visited the country from 13th to 28th February 1995 and we wish, at the outset, to express our appreciation to our Greek hosts for the effective arrangements which they made for our visit. We were enabled to have intensive and frank discussions with a wide range of political and educational leaders and administrators, at both central and local levels, and also to obtain first-hand experience of a representative sample of educational institutions – universities, technological institutes and schools at all levels – in various parts of the country.

We also had at our disposal the provisional text of the Background Report, prepared by the Ministry of Education, which, in its description and critical analysis of recent developments and the present state of Greek education, greatly facilitated our task. Its comprehensive coverage has made it possible for us to avoid repeating descriptive and factual accounts of education in Greece and to concentrate rather on essential policy issues and unresolved problems which seem to us to call for critical comment and/or suggestions for their solution. (The final version of the Background Report is reproduced in full as Part One of the present publication.)

Our report has been largely influenced by our direct observations during our visit. Its completion was much helped by the lively discussions which took place at a widely representative seminar of Greek and foreign experts, organised by the Greek Ministry of Education in Athens on 20-22 October 1995, on the basis of a preliminary statement of issues and conclusions which we had prepared for the occasion following our visit. The coverage of our report is broad, encompassing the whole system of education and the policy/administrative structures that underpin it – or rather thwart it. We have organised our discussions under six main areas.

Chapter 1 provides an overview of the setting and background within which education operates and the main issues and bottlenecks with which educational policy has to grapple. In Chapter 2 we discuss specific problems relating to the school system while Chapter 3 does the same for higher education. The emphasis throughout has been on how to improve the performance of the system, highlighting the imperative need of action to overcome current deficiencies in the quality and relevance of education at all levels of the system. Issues in the planning and

management of education are discussed in Chapter 4, with the emphasis on giving effect to policies for decentralisation and greater devolution of decision making to regional, local and institutional levels. Together with the establishment of objective systems of evaluation and accountability, we consider this as the corner stone of all reform efforts. Chapter 5 stresses the need for instituting a coherent strategy for change and outlines the essential objectives and components of such a strategy. Chapter 6 gives a summary of the main findings and recommendations, presented as a set of "Issues for Discussion" to guide the deliberations of the OECD Education Committee on the occasion of its educational policy review of Greece at its meeting in Paris on 2nd April, 1996. (A number of reform measures introduced by the Greek authorities subsequent to our report are presented in the annex at the end of Part Two.)

A word of explanation as to the approach taken in our report would be in order here. That Greek education faces urgent and serious problems no one doubts. The situation is described across all sections of the community and there is also widespread familiarity with the general nature of these problems, as well as a considerable amount of research and analytical work on them. Public debate on education is a regular feature of the Greek political scene as well as among teachers, academics, administrators and employers, not to mention students and pupils themselves and their parents. What seems to be less clearly understood among many circles is the way in which these problems are inter-related and that *ad hoc* or partial policies for their resolution cannot be efficacious.

We have, therefore, felt it necessary in our report, without pretending to present a research-based analysis of Greek education, to provide nonetheless a conspectus of the problems and suggest possible approaches to their solution, drawing also on the experience of other comparable countries. Our concern has been to bring home to all those who have a say in shaping the future of education in Greece that nothing short of *radical change*, and the political will behind it, will do if Greek education is to be liberated from the frustrating effects of the many predicaments with which it has been traditionally beset.

We know that the Minister and others responsible for education at various levels share this view. This is why we have chosen to be severely critical of many of the prevailing features of the system, at the expense of discussing what is already good, and on putting forward wide-reaching and drastic proposals for reform. We are, of course, aware of the difficulties involved in moving in the proposed directions. Other countries have experienced similar difficulties. But we are also aware of, and applaud, the evident determination which we have seen on many sides to face and act on the issues we have raised, as amply demonstrated at the October 1995 Athens seminar. And we do believe that the bases exist for a political and professional consensus not only about the diagnosis of the problems but also on the need for a comprehensive and sustained attack on them. We hope that our

report can contribute to consolidating this nascent consensus and further galvanise the determination to act, having the well-being of future generations and the vitality of Greek society in its new European context uppermost in mind. The quality of the people and of the society which they constitute remains the ultimate criterion of educational action.

THE SETTING

"If a sound system of nurture and education is maintained, it produces men of a good disposition, and these, in their turn, taking advantage of such education, develop into better men than their forbears..."
(Plato, *The Republic*)

Psomi! Paideia! Democratia!"
(Bread! Education! Democracy!)

(Athens crowds voicing their joy – and priorities – during the spontaneous demonstrations celebrating the fall of the military junta, 1974)

THE CENTRAL CHALLENGE

Any observer of the Greek educational scene will be struck by an initial and startling paradox. There is the great esteem in which education is held among all sections of the community as the defining factor both in shaping the Greek identity throughout its historic vicissitudes and in advancing the life-chances of individuals, fully reflected in the sacrifices which families are prepared to make for the education of their children. Yet there is a quasi-universally held view of the existing system as incapable of responding to this popular demand or meeting the aspirations of a highly motivated and gifted clientele. We do not exaggerate in saying that we hardly met anybody who does not have serious reservations about the system.

This contrast – which sees the great commitment to education as a force for both individual and social development dissipated and frustrated at almost every turn by a largely inappropriate system – is all the more paradoxical if one bears in mind the significant progress which has been made since the previous *OECD Review of Greek Education Policy* in 1979/80. The Background Report documents the enormous growth in provision and the major reforms of educational structures which have taken place, and for which successive governments deserve credit, as well as in the redefinition of aspects of the legal and administrative framework within which the system operates. These latter, however, have remained largely on paper, so that education is still bound up with an over-legalistic, centralised and politicised patronage-based system which stifles initiative and creativity. In our

visits to institutions we encountered widespread discontent and even anger with the self-imposed tyranny which pervades the system at all levels in terms of legal, administrative, structural and pedagogical rigidities. High standards are often achieved despite rather than because of the system. When to this is added the strong impression one gets of a system still geared essentially to preparing its clients for work in a craft economy and for a swollen public sector, the case for explicit and deliberate reform becomes all the more urgent.

Our concern, and one which is widely shared across the country, is that Greece should effectively prepare itself to exploit the enormous capacities of its people by improving its educational system. It should be asking itself:

- How can we identify and prepare the young people who will be leading Greece in its future role both in its changed geographical vicinity and as an active member in an increasingly united Europe?
- How can our education system make sure that we have the skills not only to secure a prodigious output from our agriculture, and to market it well, but also meet the needs of new patterns of industrial development and, more particularly, of a rapidly expanding service economy?
- How can Greek education ensure that its people become fully cognisant and tolerant of other cultures, while at the same time be sufficiently aware of and committed to its cultural heritage so as to avoid further incursions of pollution and the effects of crude commercial development?
- How can our educational system improve its interaction with society and contribute to lifelong learning?
- How can the educational institutions make sure that Greece fully exploits the developments in technology, particularly information technology?

Before pursuing the detailed implications of these concerns as they relate to various parts of the education system, and its administration and management, it would be useful to provide an overview of major issues and bottlenecks as they affect the system as a whole.

BACKGROUND FACTORS, FEATURES AND CONSIDERATIONS

Four general features which influence the position of education in Greece have to be noted.

Firstly, Greek education has had the advantage of serving, at least until recently, a traditionally *highly homogeneous society,* sustained by its deep-rooted Hellenic and Byzantine traditions, by a cohesive, state-supported religion and by strong family solidarity. It is a society strongly committed to equality and social justice and one which, in spite of enormous differences in the distribution of wealth, is less class conscious than is the case with other comparable countries.

The state is looked upon as the guarantor of egalitarianism, which is, however, not without its problems for education as we shall see later on. These problems are bound to be exacerbated by the recent influx of large numbers of immigrants and the return to their homeland of many Greek expatriates. There is a nascent pluralism in Greek society to which education will need to respond.

Secondly, education operates within a context of *great geographic contrasts and variety*, with corresponding differences in the distribution of population as between urban and rural areas, as well as great socio-economic differences between these two areas. Rural exodus remains a strong feature of Greek demography and largely accounts for the enormous growth of the two megalopolis, Athens/Piraeus and Thessaloniki, which together amount for just over 40 per cent of the total Greek population and an equal proportion of the country's economic activity. For education, one direct consequence of this demographic imbalance is that school-building space in towns is hard to find, or too expensive to acquire, while schools in rural areas are too small to be "economical" or to be endowed with an adequate range of educational options, of the kind, for example, that the polyvalent lyceum has been designed to provide. Responding to these imbalances places an additional premium on more effective policies for decentralisation.

Thirdly, account has to be taken of the particularities of the Greek economy and labour market. Traditionally an agricultural country, Greece has not experienced the significant shifts to the secondary and tertiary sectors which has been a feature of its fellow members in the European Union. The service sector has indeed been growing throughout the 1980s and the early 1990s, but industrial production remained stagnant, and actually decreased during the early 1990s. The overall economic prospects for the immediate future do not seem promising, according to the latest *OECD Economic Survey of Greece* (1995). "The signs of a recovery remain tenuous, with GDP growth unlikely to exceed 1 per cent in 1994, while unemployment is continuing to rise."

Greek industrial enterprises remain small in size and in terms of persons employed and more often than not are family operations. A significant proportion of the work force are self-employed. Against the background of a persisting stagnant economy, the rate of unemployment has grown to around 10 per cent, concentrating mainly among the young (20-24 years), of whom one in three remains unemployed. It is estimated, in the Background Report, that youth unemployment among the two categories of tertiary education graduates is 9.8 per cent for Technological Educational Institutions (TEIs) and 6.6 per cent of universities. Among secondary education graduates it is 12.9 per cent. Seeing that about 80 per cent of university graduates are employed in the public sector, already saturated, further employment opportunities for such graduates will no doubt get worse rather than improve.

The brief analysis above points to the general conclusion of a serious mismatch between educational output and the changing needs of the economy and

labour market. This relationship is of course difficult to pin down even under the best of circumstances; and in the case of Greece, matters are not facilitated by the absence of *systematic* analysis and monitoring of labour market developments. Such sporadic sectoral or regional studies as may have been carried out underlined the low compatibility of the secondary vocational education to the needs of industry. In addition, because of the very weak links which exist between educational institutions and the world of work, signals coming from the labour market are not readily absorbed within the educational system. The generally acknowledged rigidities of the system are held largely to blame for its lack of responsiveness. This is further demonstrated by the absence of co-operation between the educational system and the promising initiatives being undertaken by the Manpower Employment Organisation (OAED), with strong support from European Union funds, to strengthen industrial training through a regionally-based apprenticeship system.

Finally, reference needs to be made to the *political context* within which education operates. That education is becoming increasingly politicised, particularly in times of economic stringency and sharpened ideological differences, is a phenomenon common to many countries. But few other countries have experienced the *educational discontinuities* that Greece has suffered as a result of political changes, including changes of Education Ministers within the same government. (It has been estimated that over the last fifteen years education had an average of two ministers annually!) The history of education in Greece over the last twenty years is replete with educational reforms that successive governments have legislated for, as well as with the confusing array of reforms that were rescinded by subsequent governments or that remained on the statute book but were not implemented. They are all recounted in the Background Report. A main characteristic of these reform efforts is their episodic and partial nature, attempting to tackle specific aspects of education but without any coherent strategy defining the longer-term development of the system as a whole and its place in society. This lack of permanence and of a global vision has been an unsettling element among all those responsible for the management and running of the educational system, encouraging among them a feeling about the futility of supporting change, if such change is to be rechanged by the next government under pressure from its partisan groups. In education, as in other aspects of Greek political life, a certain element of populism and clientelism is always present in the interpretation of governmental action. Under the apt heading "The Curse of Sisyphus", the tortuous history of Greek educational reform is recounted in detail in Kazamias and Kassotakis (eds.), *Greek Education,* Athens, 1995, pp. 41 ff. (in Greek). It is to be hoped that the National Council for Education will be given a stabilising role in this respect.

And yet, in at least two areas of education it has proved possible to achieve a degree of consensus of permanent value. The first concerns the enthronement, in the mid-1970s, of the *demotic* as the official language of instruction at all levels (as

well as the official language of the state). The second, again beginning in the mid-1970s, was the laying of the foundations for the gradual evolution of the structure of the educational system as we know it today, and which no-one, to our knowledge, disputes – and definitely not us. If consensus was possible on these politically sensitive issues, there is every reason to believe that it can be extended to the many issues raised in our report, all directed at improving the effectiveness of the system.

MAJOR ISSUES AND BOTTLENECKS: AN OVERVIEW

The pressure of numbers

Statistically, Greece is a well-educated country. The Background Report records the remarkable progress in the quantitative growth of education since the last OECD review.

> "Currently over a tenth of the population aged 25 to 64 years holds a tertiary education degree, about a quarter are secondary school graduates and around half are at least primary school graduates. Those with (...) less than primary schooling constitute about the remaining tenth of the population. More men than women hold tertiary education degrees, but the proportions are rather equal for other levels. The significant exception is the category 'less than primary schooling', where women far outnumber men (174 women for every 100 men)."

Between 1971 and 1991, the proportion of tertiary education graduates quadrupled and secondary education graduates doubled. Illiteracy rates also fell sharply: from 14 per cent of the population over 10 years of age in 1971 to 7 per cent in 1991, with only 1 per cent of those under 45 designating themselves as illiterate in 1991.

In terms of enrolments, those for pre-school and primary school have been shrinking since the 1980s, and will continue to do so in an accelerated manner during the 1990s, because of the decreasing birth rate. The demographic downturn is already affecting secondary school growth rates, beginning with lower secondary school and eventually hitting upper secondary whose enrolments had been consistently rising since 1970. It is interesting to note that while general secondary education has stabilised, technical/vocational education continues to expand. This is not unrelated to the fact that the proportion of upper secondary technical/vocational students in private schools stands at 16 per cent, as against 4 per cent for secondary general. Tertiary education experienced the highest growth rates of all, particularly during the 1980s, total enrolments rising from 121 000 in 1980/81 to 268 000 in 1989/90 and 294 000 in 1993/94. These staggering figures, however, have to be interpreted with caution for they include a large proportion – varying between 30 and 40 per cent, and sometimes more – of registered but "inactive" students, a problem to which we refer later in the report.

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The situation depicted above, with all the regional variations that are analysed in the Background Report (Chapter 6), shows up social demand as the operative factor behind the rapid growth of education. This demand seems to function almost autonomously, with little relationship to the level of economic development or indeed to governmental policies. It reaches its apogee, and its most dramatic manifestation, at the point of entry into higher education, particularly universities. So much so that the competition for entry to universities can readily be identified as the overriding pressure point on the whole system – not only in terms of numbers (in a situation in which only one in four of the candidates are admitted) but also for the effect which this competition has on the lower levels of education, particularly the lyceum. In essence the lyceum is converted into a preparatory stage for university entry, at the expense of its other broader educational purposes; and not a very successful one at that, if we judge by the proliferation of private cramming schools (*frontisteria*) which have become such a conspicuous feature of the Greek educational scene.

We discuss these problems in greater detail later on. The general point to be stressed here is our conviction that a more rational system of selection into higher education is an indispensable piece of the total puzzle of Greek educational reform.

Resources

Meeting the demand for education, improving the educational infrastructure and raising quality are the three major challenges to Greek educational policy making. All three call for additional resources. Indeed, the inadequacy of resources is probably the biggest bottleneck in moving forward.

In spite of recent increases, Greece's expenditure on education remains at 4.2 per cent of the GDP and the share of public expenditure is 7 per cent. In times of expansion, some OECD countries devoted 20 per cent of their budgets to education, higher than for defence. In view of the claimant demand for education, and the problems that Greece faces in bringing its economy up to appropriate speed, this is self-evidently inadequate.

The inadequacy of publicly funded provision is obvious from the facts that a large number of pupils do not attend for a whole school day, but in shifts; that many schools are badly maintained, equipped and furnished; and, most significant and wounding to the self-confidence of the system and those who work in it, that the majority of parents feel it necessary to spend large sums of money in providing for additional education in private cramming schools. It has to be noted, though, that because of the high pressure for entry into university, the cramming phenomenon applies equally to students from "good" private schools as well as to those in the public system. There are insufficient resources to provide sufficient teaching spaces. Teachers complain that their conditions are poor and there is wholly insuffi-

cient in-service training. Yet many students spend Greek funds on taking university courses abroad and if the expenditures made on private education, crammers and study abroad were added to public spending, Greek educational expenditure would rise to about 6.5 per cent of GDP, *i.e.* it would be among the highest and not the lowest in the OECD countries.

It is easy for outsiders to say "spend more" and we acknowledge that our proposals will cost money. But at the same time Greece has impressive non-financial assets. There are deep resources of familial and community participation, of creativity and initiative that are not being exploited. And many of the most important changes demand changes in attitudes and style rather than new money.

Although there is a strong ethic in favour of universal public services, it does seem necessary to think of ways in which education can attract more resources. There is a good precedent in the training activities of the Manpower Employment Organisation supported financially by employers' and employees' contributions. On higher education, some parental contribution to fees and other expenses – depending on parental income – does not seem unthinkable to the examiners, although we understand this would be strongly resisted. One possibility would be to secure more places in universities by allowing local authorities to find the extra money needed. The prospect of additional local taxes and/or some parental contribution might be preferable to the heavy burdens carried by parents whose children go abroad to study, sometimes in poor quality universities. Universities might actively seek funds from foundations and/or wealthy Greeks living abroad, and seek funding for endowed chairs. They might explicitly examine the extent to which accepted university activities might be used to attract more funds. We have seen good examples – in Athens, Salonica and Heraclion – where higher education institutions had established co-operative activities with research centres in their vicinity, to their mutual advantage. At the school level, school committees are already raising funds to meet building and maintenance needs. Educational institutions need to remain true to their values, but the adoption of an entrepreneurial spirit could strengthen rather than weaken the quality of what is provided.

Within the public education budget itself, consideration could also be given to possibilities for the redeployment of resources from one sector to another, particularly in view of fluctuations in student numbers, as for example is the case with declining enrolments in compulsory schooling resulting from the demographic downturn.

Underlying social and ethical assumptions

The problems arise not only from the tunnel vision of particular interests but also from strong ethical commitments. There is a long Greek tradition of education as the main vehicle for the transmittal and maintenance from one generation to

another of the values which have shaped the specific qualities of Greek culture over its centuries-old historical development. Greeks feel strongly that this role of education needs to be firmly maintained, particularly in order to safeguard against the erosion of the Greek identity as the country gets increasingly merged into Europe.

This "national" role of education goes hand in hand with a strong belief in education as the royal road to social progress and individual development, and with an equally long Greek tradition of the state as the guarantor of opportunity. The principle of equity is quoted as a justification for centralisation, and for the necessity to have a legal base for action. But those forms of equality are now out-dated. They assume that equality requires all to suffer procedures and rules which ensure conformity to prestructured norms. They reflect an old-fashioned engineering model. More appropriate forms of democracy and equality attempt to avoid uniformity of provision and process in order to allow individuals to flourish, within generalised policy norms, through procedures moulded to the needs of individuals and communities in their time and place. This is expressive and participative equality.

Centralisation and legalism are also justified because they reduce the dangers attendant on patronage and clientele systems. But these are best met not by rigid procedures but by transparent forms of accountability achieved through audit, by multiple forms of evaluation, and by the diffusion of power through effective decentralisation. We note, indeed, a distressing lack of trust at many levels of the system. Thus students argue that more rigorous and regular assessment would make them subject to the political bias of their teachers. Teachers argue that to do away with the waiting list (the *epetiris*), based on seniority, would make teacher appointments forfeit to the clientele system. These beliefs are serious impediments to loosening up the system at several key points, and can be met by using devices similar to those used by other countries: Ombudsmen to receive complaints about unfair assessment, appointment practice of a public service commission (as in Cyprus) or the use of external examiners (as in the UK).

Mechanistic egalitarianism is evident in students' rights to free texts and food, the seniority list for public employment, irrespective of merit or fitness for the particular job (to which we return later), and the virtually unrestricted right to a diploma, once entry to university has been secured. As a result, the young are socialised early into the assumptions of a pensionariat, which stands in the way of effective teaching, learning and assessment patterns and the creation of the more sophisticated forms of individual enterprise.

These overriding assumptions all have largely negative connotations. They need to be displaced by a professional ethic which assumes that teachers will use their expertise in an altruistic regard for the needs of their clients. This classic view of professionalism is now being extended by the new professionalism which requires professionals to cease hiding behind their esoteric knowledge and skills

and to actively seek out the expressions of needs and the knowledge of their clients with whom they come into an active co-operative relationship. This is not only appropriate to the educational task, but also makes for a more satisfying vocation for the teacher.

Raising quality

Given the strong social and familial commitment to it, the Greek system should be capable of producing high quality education. In some respects it is so, but the acknowledged faults include:

- The mind-set associated with the single text book, which often takes the form of mental anorexia, is reinforced by the persistence of the same approach in higher education. This colludes with the memorisation imposed in the university entry examinations and affects the nature of secondary school teaching by graduates who have suffered within the same tradition. Teachers, at all phases, are discontented at lack of freedom.
- There are few signs of expressive life in the schools. In those we visited, no children's work was on display. Most schools are, indeed, dreary buildings displaying no signs of an educative environment.
- Use of a parallel private system (the crammers) by those who can afford it and by most families is demoralising to the state schools, and deflects pupils' commitment to work in them. But it is itself a symptom of rejection of the quality of what is provided.

Several measures are needed to raise quality. We will discuss them in more detail below. In brief, however, we envisage a connected virtuous circle of improvement which will counter the existing vicious cycle of characteristics making for poor quality, as follows:

- The prime resource in education, apart from the pupils themselves, are teachers. They need to be recruited and promoted selectively and not on seniority listing, trained effectively, and given all assistance through in-service training, counselling and better conditions to convert the teaching force into a fully professional body.
- The dead weight of the centralised text-based curriculum needs to be mitigated by teacher discretion to adapt it to local needs and interests and their own professional judgements.
- Decentralisation needs to ensure that responsibility rests with those who provide and receive the education.

- Work should be evaluated to ensure better quality through both external scrutiny and self-critique.

All of this implies a willingness to move away from the present system with its heavy weight of bureaucratic as opposed to educational power.

New policy-making and management structures

The last major issue/bottleneck that we wish to raise relates to the governance of the educational system. We have already given more than strong hints that a release from the centralised, legalistic and bureaucratic shackles under which the system endeavours to function is an essential condition for its revitalisation. We devote the two last chapters of our report to this problem and what new approaches could be applied to improve it in the interests of enhancing the overall effectiveness of education, commensurate with national objectives and the aspirations of the population. Our proposals revolve around the triptych:

- redefining the role of the Ministry with a view to improving its policy/planning and thinking capacity;
- putting into practical effect the decentralisation of decision-making and giving greater autonomy to institutions so as to enhance their creativity and freedom of action within centrally set norms;
- instituting objective systems of evaluation and audit at all levels, essential for both self-development and monitoring progress.

We believe moving in these directions to be a *sine qua non* for any strategy for change.

2

SCHOOL EDUCATION

STRUCTURE AND LOGISTICS

The Greek school system has a rather simple, clearly delineated structure that has not changed since 1977. Compulsory schooling consists of six years primary, followed by a three-year comprehensive *gymnasium* or lower secondary school. At the post-compulsory upper secondary level four different types of school are available: a general *lyceum*, a technical/vocational *lyceum*, a comprehensive *lyceum* that offers both general and technical education (operating on an experimental basis since 1984) and a two-year technical/vocational school. Besides these schools there is also an apprenticeship system.

Whatever problems there may be – and undoubtedly there are many – no-one imputes them to inadequacies in the structure of the system, a view which we fully share. Overall enrolments in the schools have remained more or less constant since 1980. There has been a slight increase in the late 1980s, followed by a decline that brought the 1993/94 enrolments down to slightly less than the 1980/81 level. The numbers of teachers have slowly but steadily increased. As a result, the teacher/pupil ratio has decreased and is now on the low side as compared to other Western European countries: 16/9 in the kindergarten, 20/4 in primary, 15/6 in the gymnasium, 14/7 in the general lyceum and 13/2 in the technical and vocational schools.

These figures, however, conceal important discrepancies between the sparsely populated regions (islands and mountainous areas) and the major cities: in the latter, teacher/pupil ratios are often unacceptably high, in the former they have often gone down to very low levels indeed. As already mentioned, the rampant depopulation of the rural areas, to the benefit of a savage growth of the cities, is one of the major problems that Greece – and its educational system – faces. Maintaining an adequate public education service in the depopulating regions has had as its counterpart an inadequate supply in the cities: inadequate not just in terms of teacher/pupil ratios, but also in terms of available school facilities. The building of new schools has not kept pace with needs and in many cases there is a distressing shortage of classrooms. Very large numbers of schools share their facilities with other schools and work in two or even three shifts. Others are housed in rented, totally inappropriate accommodation. The shortage is greatest in the Attica

prefecture, but also Heraklion and the Salonika prefecture have massive and urgent needs, as we were able to see on the spot. In some of the "problem schools" which we visited the teaching and living conditions are simply unacceptable and often the most elementary hygienic and security conditions are not met. Every possible space – including cellars, corridors, store rooms, teacher rooms – has been turned into a classroom, and an overcrowded one at that.

It seems that money is not the only or even the main problem. The main obstacle to providing new schools is the lack of building sites. Lack of foresight of the various administrations at the time when the "boom" started, as well as inadequate regulations, must carry the blame. The Ministry of Education and the henceforth co-responsible local administration alone cannot solve the problem. We suggest that there is a strong case for a government-backed emergency programme, possibly supported by EU funding, to deal with the immediate needs of priority designated areas. (We understand that EU funding has indeed been made available now and that this new money is being used for the purposes stated here.) It may well be that the possibilities of expropriation, *e.g.* of unused building plots, need to be widened. In our view, the higher interests at stake would fully justify such a step.

There are still large numbers of small schools in the island and mountain regions, schools with less than four teachers and classrooms. The problem of the depopulation of the rural areas is a familiar one. Closing down the small schools and concentrating the educational facilities in the towns meets with strong resistance from the local communities, besides requiring transport of children that is costly and that for social and human reasons has to be kept within reasonable bounds in terms of time and distance. Besides, in these regions children are often asked to help out in their family's business – farming and tourism – and parents do not want their children to be away from home for too long a time. The major educational and social advantages of maintaining the small schools in the villages need to be carefully weighed against the educational and economic advantages of concentrating schools in the towns and bigger villages.

There are no miracle solutions to these problems. It may, however, be worth having a close look at the solutions that other countries have adopted to solve similar problems – Portugal, Canada and several Scandinavian countries in particular. Part of the solution may lie in distance teaching. A reorganisation of time-schedules (over the week, over the year) in order to reduce the transport periods and release children from school when they are needed at home may be considered. Teacher instead of pupil mobility is another possibility, as is closer involvement in their schools of the parents and of other adults in the community.

A prospective study of the needs and conditions of schooling, in particular of compulsory schooling, in present day Greece is called for in order to chart such problems and weigh the various solutions that would be best adapted to particular circumstances. The new responsibility of the local administrations for education

offers a welcome opportunity for such an initiative. School building and equipment, under the rules that came into force as of 1 January 1995, are the responsibility of the Prefectures (although the funds are still provided by central administration), whereas school maintenance is now the responsibility of the municipalities. (We deal with the problems and possibilities which arise from decentralisation as it affects school building, equipment and maintenance, in Chapter 4 below.)

PRE-SCHOOL PROVISION

Pre-school enrolments have remained stable since 1980. Roughly speaking, half of the 3½-5½-year-olds are enrolled and this rate has practically not increased in the last 15 years. It seems that, because of the lack of places, many children are refused admission. The growing participation of women in employment leads to a steady increase in the demand for pre-school education, a demand that in the present circumstances cannot be satisfied. There is also a great need for "all day" kindergarten for the children of employed mothers.

Many kindergarten share their premises with primary schools, or, more precisely, are given a minimum of space in already overcrowded primary schools. Their conditions are often such that there is no place for play or for creative activities. Playgrounds are often missing or are very poorly equipped. The sharing of facilities could be turned into an advantage, in particular in view of making the transition from pre-school to primary education more flexible; it seems, however, that very little is done to exploit the possibilities of a forced "cohabitation", even though it is recognised that children who have attended kindergarten adapt on the whole much more easily to the primary school than those who have not.

The answer to this is not necessarily to make all children attend kindergarten and to make the kindergarten into a preparatory stage for primary education. It may also lie in reconsidering the pedagogy of the first year(s) of primary education, as has been done in other countries.

On the other hand, it seems necessary to rapidly expand the number of places in kindergarten education, in addition to improving the material conditions of the existing ones. One of the obstacles to such a policy is the scattered responsibility for pre-school matters over several ministries. (The Ministry of Education has responsibility for kindergartens but not for day-care centres.) It might be best to give the Ministry of Education sole responsibility for all pre-school matters or, if this is not possible, at least entrust it with a co-ordinating role. Particularly in urban areas, the priority of all-day care for all children below the schooling age should be explored. Half-day care does not meet the needs of all parents, besides the fact that transport to and from the kindergarten occupies a disproportionate amount of time in relation to the actual time that children are taken care of.

COMPULSORY SCHOOLING

The general view is that the quality of primary schooling in Greece is rather good, and we have no reason to quarrel with this view. Our concern is to ensure that this high quality is maintained against a background of ever smaller schools in the villages and overcrowded ones in the cities, combined with the "greying" of the teaching force resulting from the *epetiris* system of appointment. Moreover, the single-textbook rule in primary schools makes for a stifling formal uniformity all over Greece. It is a disincentive to creativity and initiative, of teachers as well as pupils, and an incentive to rote learning. Children are thus as of an early age accustomed to an externally imposed learning environment and content that rewards conformity and sanctions individual initiative. Furthermore, the decline of enrolments implies that few new teachers are hired. Thus, another source of change and initiative has dried up.

Underneath this formal uniformity there are, however, large differences. As already mentioned, very many primary schools have less than four – and many even only one or two – classes. This is not necessarily a disadvantage. It is said that the children from these small rural schools often do better in secondary education than those from the larger schools. But there are also disadvantages. The small schools cannot offer English as a second language. They cannot afford sophisticated teaching aids. The children often travel over long distances and in the summer they are kept at home to help in farm work or in the tourist business (see also above).

Some years ago grade-repeating was abolished, rather to the general satisfaction. But the measure was not accompanied by its necessary counterpart, *i.e.* support for pupils with learning difficulties. On the other hand, automatic grade promotion would be more beneficial if it were accompanied by adequate pupil assessment that would provide trustworthy information as to the pupils' weak and strong points and thus guide the teacher in the next grade.

Voices are heard here and there in favour of re-establishing grade-repeating, in particular in the first grades where many pupils have serious learning and adaptation difficulties. It seems to us that this would not solve the problem. A much more effective measure would be to arrange for external support for pupils with such learning difficulties and to smooth the transition from kindergarten to primary school by introducing more creative and flexible, child-adapted pedagogical methods in the first years of primary education, as already mentioned.

There are too few school advisers to carry out this special support task and individual support is not part of their mandate. Besides, most of them do not have the required competence. The solution would consist in either providing the teachers themselves with the required competence or introducing a system of external counselling by adequately trained staff.

A growing problem is that of the absence of custody for primary school children after school hours (schools are half-day). This seems to be one of the reasons why parents send their children to private schools, where such custody is provided. In some schools the parents themselves have taken the initiative and have hired competent persons (often teachers without employment) to take care of the children in the afternoons. Such initiatives deserve support by the local communities and administrations as well as by central administration.

Upon completion of primary school pupils are given a certificate recording their achievement in the various disciplines. Admission to the *gymnasium* is automatic, and the certificates are merely for information communicated to the *gymnasium* administration. It seems, however, that often they are not put to any use and that the procedure thus fails to meet its presumed pedagogical purpose.

Concerning the *gymnasium*, we were told that many pupils entering this level are not well-prepared. Grade repeating in the *gymnasium* is not formally abolished, but in reality nearly all pupils are almost automatically promoted to the next grade. There is, as throughout the system, one textbook per discipline. Most teachers to whom we spoke feel that this practice is regrettable and damaging. It must be added that in the *gymnasium* each discipline is taught by a subject teacher. *Gymnasium* teachers have, contrary to their primary school colleagues, received very little pedagogical training. The new regulations, however, make some pre-service training mandatory. At any rate, for many pupils the transition from primary to secondary school is difficult.

Very few initiatives seem to have been taken by principals or by individual teachers to break the one textbook rule, a fact that may come as a surprise if one considers that these teachers have been academically trained in their discipline. It must be recalled, however, that the textbook rule also applies to higher education and that secondary school teachers have never been exposed to other practices. Thus, the very idea of using different sources of information is probably alien to most teachers.

The textbook problem, however, is only part of a wider problem. In many schools the prevailing attitude seems to be one of resignation. Whereas many teachers agree that "something has to be done", the overall reaction is that, in view of the lack of facilities and the absence of any reward for extra performance or for initiative, teachers cannot be expected to do more than the strictly necessary. Initiatives are foredoomed. Besides, teachers' low salaries do not warrant any extra effort. Without (much) more money, we were told, for the teachers and for the equipment of schools, nothing can be done.

Many teaching hours are lost because teaching posts remain unfilled or because absent teachers are not replaced. This may seem paradoxical in a system with a ten-year waiting list for teachers. Sometimes the reasons for vacancies, 149

particularly in the outlying regions, are administrative: rules as to appropriation are (too) complex, money is appropriated for other purposes. Schools do not have the freedom to replace an absent teacher themselves. In spite of the waiting list, it is difficult to find teacher candidates for schools in remote regions.

As we emphasise later on, a hard look at management competences and management practices throughout the system – from the Ministry of Education down to local administrations and schools – seems necessary in order to find solutions to this accumulation of problems. More flexibility and more devolution of responsibility, including budgetary matters, to the "workfloor level", in particular to the schools themselves, should be the first rule that should govern a thoroughly revised system of educational management.

The *frontisteria*, or private cramming courses, are already fairly common at the *gymnasium* level. It is generally felt that they are needed to make up for the shortcomings of the public system and many teachers seem, in defiance of the rules, to be engaged in private afternoon courses. The *frontisteria* also help to solve another problem, *i.e.* that of the afternoon occupation of pupils, in particular those of working parents. It seems that an earlier initiative to organise custody for those who want or need it has again been abolished. As in some primary schools, parents have – here and there, with the help of teachers and the local community – hired staff to take care of pupils in the afternoons.

The enrichment of the curriculum with information technology is generally welcomed and adequate equipment has been made available to most schools. But in many schools teachers have not received the necessary training in information technology and the subject is not systematically assured.

The appropriateness of a uniform curriculum with no options until the age of 15 is not universally endorsed. Many teachers feel that some degree of differentiation should be offered, in order to better suit the diversity of needs and abilities. But no concrete ideas were put forward as to how and what. As in other matters, the overall reaction is that the idea in itself is perhaps good, but in the present circumstances, both in terms of resources and of central management, there is no place for initiatives of this kind. Nevertheless, we feel strongly that the possibility of a somewhat diversified curriculum should be considered. We shall come back to this later in this report.

The Background Report mentions that in 1991/92 8.9 per cent of pupils had dropped out from the *gymnasium*, nearly all of them (7.3 per cent) in the first year. Regional drop-out rates varied very strongly, from 1 per cent to 29 per cent. In 17 of the 120 administrative regions they were over 15 per cent. The high rates occurred mainly in the rural regions. It seems likely that work in family businesses is one of the main reasons.

This raises in the first instance questions as to the adequacy of the compulsory schooling period. Few, if any, people in Greece would want to shorten compulsory schooling, but special arrangements for pupils in rural areas that would allow them to help out in their parents' business in the summer would probably be welcomed by many.

On the other hand, these drop-out rates provide a strong argument in favour of a policy of continuing education. Facilities for continuing education in Greece, particularly in the remote regions, are almost non-existent. Parallel to preventive and remedial measures against early drop-out serious consideration needs to be given to the possibility of making continuing education and training available in these regions.

UPPER SECONDARY EDUCATION

The vast majority of *gymnasium* pupils continue their studies in upper secondary schools. About 60 per cent enrol in general *lycea*, 5 per cent in polyvalent *lycea*, 25 per cent in technical *lycea* and 10 per cent in technical/vocational schools. Pupils are free to attend the upper secondary school of their choice. But obviously the marks of the final certificate of the *gymnasium* play a large role in the choice: the best pupils go to the general *lyceum* and the least performing ones to the technical/vocational schools.

It seems remarkable that this free choice does not lead to an even greater rush on the general *lycea*, as these are the only direct access to university. The percentage entering the general *lyceum* has even decreased in the past decade, although the target of 40 per cent entrants to upper secondary technical or vocational education has not been entirely attained. On the other hand, the demand for entrance to the general *lycea* seems to exceed the number of places available and many candidates are refused admission or are discouraged from applying.

The question must be raised whether this "spontaneous" allocation would not better be accompanied by guidance of pupils, on the one hand, and by a certain amount of freedom for schools to select their pupils, on the other. Even if Greece is in this respect not alone, it is regrettable that technical and vocational education almost automatically receive the academically weaker candidates.

Many teachers in the general *lycea* feel that pupils have not been adequately prepared in the *gymnasium*. Without further information it is difficult to say whether this is true. If anything, it confirms the need for systematic assessment of pupil performance in the *gymnasium*. It also provides a further argument in favour of some degree of curriculum differentiation in the last year of the *gymnasium*. On the other hand, the criteria on which the marks mentioned in the final certificate of the *gymnasium* are based need to be revised, or at least be made more explicit, so as to

allow for more rational judgements as to the appropriateness of choice of upper secondary school.

A certain amount of horizontal transfer takes place between the general and the technical *lyceum*, particularly at the end of the first grade. But this is almost entirely a "downward" movement, from general to technical. Low achievers recognise that they will be better off in the technical *lyceum*. The latter is thus burdened with another load of involuntary candidates.

In the upper two grades of the general *lyceum* the DESMI (academic streams) system is the dominant factor. It entirely determines pupils' and teachers' approaches to learning because of its direct preparatory role for the respective entrance examinations to university. This is widely thought to be undesirable and harmful, because of its various negative side effects: it reinforces the role of rote-learning and it reduces the range of subjects that are taken seriously by pupils, parents and teachers to those that appear in the university entrance examination.

It can, of course, be argued that over three years pupils are exposed to the full range of subjects and that this exposure cannot but have positive effects. But one may just as well wonder whether this effect is proportionate to the time, energy and money that are invested in their teaching. And, more seriously, whether such a reduction to a few academic subjects (even if the range is somewhat wider than is usual in the Anglo-Saxon A-level tradition) is compatible with the broad aims that *lyceum* education is expected to achieve: "(...) help young people to understand social reality and to choose their future career, so that they can successfully integrate into society and contribute to the country's economic and cultural development. A solid education in an oecumenic and humanitarian national conscience shall enable the graduates to work together with the other citizens from their country and from the entire world in order to promote science, art, the quality of life, peace and, in one word, civilisation" (freely translated from the report of Greece to the 44th session of the International Conference on Education, Geneva, 1994, French text p. 20).

At any rate, it is likely that very little attention is given to the full range of the common core of subjects – which in the last grade covers religion, history, principles of science policy, a foreign language and physical education, altogether ten out of thirty weekly hours. According to the DESMI (the group of subjects that students must chose for entry into higher education) selected, pupils in the higher grades are no longer exposed to mathematics, physics, chemistry, biology, economics or sociology. The number of "real" disciplines is thus restricted to four or five.

The final certificate of the *lyceum* is granted on the basis of the achievement in the foregoing grades and it is given to all pupils who have completed the third grade. It is the sole responsibility of the school and does not include any special final examination or test. The certificate mentions the marks that have been

obtained, but these are not taken into account for the university entrance examination.

In the upper grades of the general *lyceum* private cramming courses have become, for everybody concerned – pupils, parents and teachers – nearly the only thing that counts, *i.e.* the only thing that it is worth spending time and money on. The dominant role of the *frontisteria* is nothing short of an open admission of the inadequacies of the public system. The demoralising effect on the public *lyceum* is immense.

It goes almost without saying that this situation should not be allowed to continue, and everybody we met is in agreement with this view. But concrete and "feasible" proposals as to what and how are rare. There are indeed several obstacles to be overcome:

- The monopoly of the university entrance examination must be broken. As already indicated, the pursuit and attainment of the aims of *lyceum* education are thoroughly thwarted by the tyranny that this examination exercises over the *lyceum*.
- Evaluation of studies and assessment of achievement must be given their due role in the *lyceum* itself. They must cover the full range of subjects and rely on criteria that are derived from the teaching objectives of every discipline.
- The final certificate given at the end of *lyceum* education should be given a value in its own right. We have been heartened to learn that plans for the introduction of National Lyceum Leaving Certificate – *Ethnico Apolitirio* – have since been drawn up and are ready for implementation. This aim would be achieved if a school-external element in the validation of achievement were introduced. Such an "external element" could take various forms: a final examination with participation of external examiners, or (partly) based on externally-formulated examination tasks. Externally-developed achievement tests could also help to attain this aim. The final marks given should be based on these external criteria and on the internal school attainment measurement.

Such external measurement instruments need to be developed professionally. External advice and assistance may also be needed in order to allow schools to develop and improve their own, internal achievement assessment.

The required external professional competence is at present not sufficiently developed in Greece. A long-term policy is therefore needed that may include calling on external advice and help, while simultaneously promoting the training of Greek specialists – in a first instance probably best abroad. In the shorter term, one may have to rely predominantly on external assistance.

Parallel to this mustering of the required technical competence, sustained effort is needed in information and persuasion in order to develop among teachers, parents and pupils, but also among the wider public and particularly among policy makers and administrators and among those who shape public opinion, an awareness that the maintenance of a public service – *i.e.* public education – is jeopardised if the above safeguards for its quality are not provided.

The *polyvalent lyceum*, probably the most innovative venture in the Greek education system of the last ten years or so, seems, after a period of standstill, to have entered a period of growth and development. The decision has now been taken to set up 15 additional establishments in addition to the 25 existing ones. This would mean an increase of pupil numbers from over 22 000 to about 35 000. This is still far from the policy objective that has been formulated several times of making the *polyvalent lyceum* the dominant model, but it is a firm step in that direction.

The merits and advantages of the *polyvalent lyceum* are generally recognised. The choice between general and technical education is delayed and can be made on a more informed basis than in the traditional system; the polyvalent *lyceum* induces a greater proportion of pupils to opt for technical studies (about one-half instead of one-third). Furthermore, the *polyvalent lyceum* rides, so to say, on the wave of innovation: it attracts good and motivated pupils and teachers, its curriculum is well adapted to the comprehensive nature of the first year and in the higher grades all pupils maintain contact with technology. The first year prepares for a motivated choice in the second.

But there are also disadvantages. The high cost per pupil is one of them; the rather great number of pupils required per establishment, in order to be able to offer a wide range of technical specialisations, is another. As a result, the *polyvalent lyceum* needs a large catchment area and cannot survive in sparsely populated regions. Nevertheless, the advantages largely outweigh the disadvantages. One major achievement is that the dominant position of the *general lyceum* has been successfully challenged.

Many *polyvalent lycea* offer a fourth optional year which leads to a more advanced technical specialisation. In under six months in an IEK polyvalent lyceum, graduates can obtain a European-recognised technical certificate.

Vigorous promotion of the *polyvalent lyceum* as the "model of the future" is, in our view, fully in order. The cost factor should be carefully scrutinised. It may well be that, all other things being equal, the cost per pupil is not higher than in the other *lycea* (including, of course, the technical ones). And even if it appears to be higher, the apparently excellent quality of the technical and laboratory equipment undoubtedly allows for better technical training.

Equally, the problem of the great number of pupils required needs to be looked into. It may well be that the targets in terms of number of specialised training

courses have been set somewhat too high and that after consultation with regional and local economic partners more realistic and less costly investment plans can be proposed for the new establishments. Such plans would also allow to keep the numbers of pupils required per school lower than is the case at present.

TECHNICAL AND VOCATIONAL EDUCATION

Vocational and technical education has, over the past years, been the subject of many reforms. The old secondary vocational schools had disappeared with the 1977 extension of compulsory schooling until the end of the 9th grade and the introduction of the comprehensive *gymnasium*. The 1977 reform created the three-year technical *lycea* and the two-year upper secondary technical/vocational schools. In 1992 a new type of post-secondary school was established, the Institute for Vocational Training or IEK. The old KATEEs had been transformed into the present Technological Educational Institutions (TEIs).

Great progress has been made in terms of the proportion of upper secondary pupils enrolled in vocational and technical education: in 1979 it was only 18.5 per cent (and thus the lowest of all OECD countries). By 1993 it had risen to over one-third of all upper secondary enrolments, a very substantial progression in a short lapse of time. Seen from this angle, the structural reforms have achieved their target.

However, one may have doubts about the selection and choice processes for technical and vocational education. In particular, one may question the criteria on which pupil choices for vocational and technical education are made. In our view, there are three elements which justify such questioning:

- the absence of a valid system of achievement assessment and of certification in the gymnasium;
- the lack of curriculum diversity in the gymnasium that could guide pupils in their choice of upper secondary programmes;
- the absence of a system of pupil guidance.

In these circumstances, the choice of vocational or technical education, as already indicated – and this was confirmed to us from various sides – is mainly guided by such factors as the marks obtained in the final certificate of the *gymnasium* (but it must be recalled that their validity can be questioned); by parents' expectations and perceptions as to the value of technical or vocational education and the career expectations of their children; and by a host of less easily identifiable criteria and factors that have much to do with traditional status considerations, with attitudes and values and the like.

We were told that technical occupations in Greece are on the whole not highly valued and that the prestige of general education and of the ensuing academic

education is so high that technical and vocational education is by definition a second choice. This is, of course, a familiar problem in many countries and particularly so in those of the Latin-Mediterranean tradition. In Greece it is compounded by the fact that industrialisation never really came off the ground and that the training needs for the booming tertiary sectors are often not clearly defined. Valid labour market studies and employment forecasts that could guide policy for vocational and technical education as well as pupils' decisions seem indeed to be almost totally lacking.

As to the quality of technical and vocational education, opinions diverge, and reliable information is not available. The fact that in the second grade the technical *lycea* enrol many pupils who are unable to continue in the general *lyceum* is often quoted as an indication of the poor quality of the pupil intake. And though many technical *lycea* are well-equipped, others are not able to adapt their equipment and course offers to the rapid changes in the labour market in favour of tertiary sector occupations. The heavy investment in equipment for training for the manufacturing sector is, as a result, often under-used and is moreover rapidly becoming obsolete. Employers on the whole prefer graduates from the private technical schools which seem to be more responsive to the new skills required by the growth of the service sector.

One of the expected effects of the decentralisation of decision-making to the local levels is that it will facilitate the adaptation of technical and vocational training to the local economy needs. The relevant proposals, which can come from the schools themselves but also from the Chambers of Commerce and Industry, are channelled through the Prefecture to the Ministry of Education where final decisions are taken.

The creation of the IEKs does not seem to have been heartily welcomed by the technical *lycea*. They largely train in the same specialisations, but their advantage over the *lycea* is that they give a diploma that is recognised at the European level. Many people feel that the market is too small for these two types of technical training institutions. Here and there, a not always healthy competition between the two seems to exist.

However, the IEKs fulfil several other very useful functions. They offer in particular a two-year technical training course to those youngsters who have failed the university entrance examination. Furthermore, they offer additional technical education to graduates from the technical, but also from the polyvalent, *lyceum*. The duration of courses varies from six months to two years, according to students' earlier education. They are largely given in the afternoon and in this way allow a combination of work and studies.

But the strengths of the IEKs are at the same time their weakness. At least for the time being, classes are small, too small in view of the high cost of technical

equipment. The great diversity of the students' educational background requires a very complex pattern of courses. At the same time, the employment prospects of the graduates still seem to be rather uncertain, due to their novelty, but perhaps also to the hesitant policy with regard to the development of IEKs.

It seems to us that there are several good reasons – the flexibility of the formula and its adaptability to a wide diversity of students and to the local needs being the main ones – why the IEKs should be strongly promoted and an end be put to the present uncertainty as to their status and future. They fill an important gap in the Greek technical and vocational training system. One may argue that part of their *raison d'être* lies in the malfunctioning of the system. This may well be so. But the IEKs offer much more than a remedy to these malfunctions, *e.g.* the massive numbers of students not admitted to higher education. They are innovative in their organisation and represent the missing link in the Greek educational system that was badly needed.

A key role in Greek technical and vocational education is played by the Manpower Employment Organisation (OAED). Its tripartite structure potentially assures an optimal co-ordination between education/training and the labour market and we were told that within the OAED co-operation, consultation and understanding are on the whole satisfactory.

The OAED finances and organises an important part of technical and vocational training programmes, in the first place out-of and post-school programmes that the educational system is not concerned with, but also a large part of the formal vocational training programme, in particular a great number of technical/vocational schools and IEKs. To its total budget of Dr. 200 billion – the major part of which serves to finance unemployment benefits – the State contributes only a minor part, *i.e.* 9 billion, or less than 5 per cent. The bulk comes form employers and employees' contributions, but there is also significant support from EU funds.

In the OAED apprenticeship programmes the numbers of pupils admitted to each specialised training programme corresponds to the numbers of training places that industry is able to make available and the relevant numbers are every year determined by common agreement. One of the implications of this restricted admission is that only half of the demand for apprenticeship places can be met. The counterpart is that the great majority of the apprentices trained find work.

It seems that the validity of these apprenticeship schemes is here and there questioned. It may be that the level and the quality of the training that they provide do not fully meet the requirements of an employment market that is rapidly changing, while at the same time many of its sectors pass through a period of depression. But whatever changes may upon closer scrutiny appear necessary, they should, in our view, leave untouched the main characteristics of what appears to be good

formula, in particular the tripartite control and the management and financing out of contributions from the social partners.

We did not have time to look in any detail at the out-of-school and after-school training programmes that are organised under the auspices of the OAED. But here, also, the formula of a tripartite body (State, employers, employees) for financing and organising the courses seems to be the right one – and one that other countries would do well to study more closely.

In view of the fact that OAED resources are clearly insufficient to meet the need for increased investment in technical and vocational education and training the possibility of increased public funding should be envisaged. There is also need of a more active policy directed at enhancing the awareness of the social partners of the key role that technical and vocational education and training play in economic growth.

There is also an urgent need for a less complex decision-making and management structure for the entire sector of technical and vocational training. At present, besides the OEAD and the Ministry of Education, several other ministries finance and manage technical and vocational training programmes. In addition, private initiative is strongly represented: there are 100 private IEKs besides the 68 public ones. While an element of healthy competition may be helpful, this must not be at the expense of a rational and co-ordinated approach to the overall national effort to develop and manage technical and vocational education. A clearer definition of roles and responsibilities, as for example between the OAED and the Ministry of Education's Organisation for Vocational Education and Training (OEEK) is necessary. More broadly, there is need for a central co-ordinating mechanism, whether under the Ministry of Education or elsewhere, to oversee the whole enterprise and ensure its further development. It goes without saying that whatever the solution to be adopted it should not be to the detriment of well-functioning bodies such as the OAED.

There is indeed, in our view, an urgent need for co-ordination between the OAED-managed courses and those organised by the Ministry of Education. We were told that between the two there is a great deal of overlap and that resources are unnecessarily scattered. Without better data it is difficult to verify these allegations. Be that as it may, better co-ordination between the various ministries and services involved in the provision of technical/vocational education and apprenticeship courses should, we believe, be given top priority.

CURRICULA

Curriculum policy in Greece is, as already mentioned, strongly determined by the one-textbook rule and by the fact that all curricula/textbooks are centrally developed and produced. In such a system there is no place for school-based

curriculum development, for adaptation of curricula to local needs or to the needs of specific client groups nor, for that matter, for teacher initiative.

The disincentive that this situation represents for innovation is enormous. The fact that many teachers with whom we talked said that they were unhappy with the system, and that some of them more or less openly defy the rules and use other teaching material than the one that is centrally prescribed, must in this context be seen as a sign that change, at least in large quarters of the teaching profession, would be welcomed.

An advantage of the single textbook and the centrally prescribed curriculum could be that it makes rapid curriculum change possible. The introduction of modern Greek as the language of instruction was thus, in the early 1980s, swiftly and successfully carried through. The new textbooks were produced rapidly and there was probably no major need for teacher in-service training.

But where these favourable conditions were not met, curriculum innovation has appeared to be a cumbersome process in spite of centralism. Thus the decision to introduce information technology in the *gymnasium* was not followed up in what concerns teacher in-service training, whereas equipping the schools with hardware and software is taking many years. The result is that often the subject is taught in an amateurish way and in many schools it is not taught at all.

A general critique that we heard concerns absence of "modernity" in the curriculum. Modern issues, it is said, are not given adequate attention. Furthermore, the curriculum is said to be excessively "Grecocentric" and, in spite of the indeed well-developed teaching of modern languages, gives insufficient place to the European dimension. Nor does it convey much in terms of knowledge and understanding of other people and other cultures, whether European or worldwide – an anomaly indeed for a country with a cultural tradition that throughout history has been open to international influences and that, in its commercial relations, has always been thoroughly international.

A widespread criticism relates to the fragmentation of the secondary school curricula, and in particular that of the *gymnasium*. New issues and new subjects have been introduced by simply adding other disciplines to the timetable. Their introduction (information technology, a second modern language) has thus led to overcharging the timetable of the *gymnasium*. A load of 35 hours a week, as compared to 31 hours in 1984/85, is very heavy indeed. Of course, the teaching of both modern and ancient Greek (eight to nine hours a week) weighs heavily on the timetable. On the other hand, it is notoriously difficult to reduce the number of teaching hours of any discipline. Perhaps, as suggested earlier, modest differentiation of the curriculum in the last year(s) of the *gymnasium* could offer a way out of the dilemma. The load of language teaching, or conversely of the sciences, could thus perhaps be slightly reduced to the benefit of an overall reduction of the

number of teaching hours. On the other hand, efforts could be made to introduce interdisciplinary teaching, allowing thus for a more simplified curriculum within which new issues could be treated more adequately.

After the considerable changes in the curricula in the recent past it might be unwise to embark in the near future on another major reform of the school curricula. Neither, in our view, is such a major reform needed. The effort should rather concentrate on *qualitative reform*, and focus on three main tasks:

- Re-considering the balance between the various groups of subjects. Mention has already been made of the heavy weight of language teaching, *e.g.* in the timetable of the *gymnasium* (13 to 14 hours out of 35). It should be possible to slightly reduce its overall load in addition to differentiation possibilities suggested above.
- Teaching continues to be organised in separate disciplines. In particular, as far as the sciences are concerned, the possibility of grouping subjects under interdisciplinary themes should be considered, as already mentioned.
- Adapting the curriculum to specific regional and local conditions. It can be assumed that intensive teaching of modern languages is particularly important in tourist regions, whereas in others science may be equally or more important. A body of common learning should, of course, be maintained across the country and here the concept of a "core" or "national" curriculum comes into play. This would clearly set the signposts and limits for the adaptation of the curriculum to whatever special needs. In the present situation, the local and regional actors have no criteria or guidelines which could help them to develop their own curriculum plans.

In general, we believe that a close look is needed at the way in which new curricula are developed. (We were told, for example, that little place is given to the "specialist view" in the formulation of new curricula.) Any revision of the procedures and criteria that govern the development of new curricula, including related issues in the production of textbooks, would imply a careful scrutiny of the role and competence of the Pedagogical Institute and the role of the Ministry of Education itself in providing the needed strong and professionally competent guidance in this area.

TEACHERS

The teacher issue in Greece, more than in other countries, is at the same time simple and complex: simple to describe and analyse, complex to resolve.

Teachers for all schools are now trained in the universities. Those for primary schools receive a thorough pedagogical training. Those for the *gymnasium* and the *lyceum* are graduates in their respective disciplines. In the past few years an

attempt has been made to provide them with some pedagogical training before they are appointed to a school (but it must be remembered that before their appointment an average of ten years have elapsed since they graduated from university). Re-training in their discipline may hence be as much in order as pedagogical training.

A new system of pre-service training is now being put into place, designed to remedy the shortcomings of the former system. The new PEKs are located in every prefecture and are thus closer to the teachers than was the case in the past.

In-service training has also been reorganised. It covers courses lasting several terms, but the present capacity would not be sufficient to accommodate all teachers at regular intervals. Besides, the absent teacher undergoing in-service training requires temporary replacement that often cannot be assured. Many teaching hours are said to be lost as a result.

But the overriding problem is a different one: in the Greek system, there is no external incentive – besides the recent obligation of pre-service pedagogical training for the secondary school teachers – for in-service training. Promotion and progression in salary are entirely dependent on seniority.

The problems caused by the "waiting list" have already been touched upon. It engenders an enormous need for updating that the existing pre-service training obligations can, in the best of cases, only very partially meet. Combined with the lack of incentives or rewards, this confronts the newly established PEKs with an impossible challenge: not only because of the high cost of replacing teachers in in-service training, but also because of the likelihood of low interest in training on behalf of an ageing teaching force.

Rapid ageing is indeed another key problem of school staffing. Teachers are not only well over 30 before they are first appointed: they must also remain active to at least the age of 65 if they wish to obtain a full pension. The demographic decline strongly reduces the need for replacement and for budgetary reasons it is unlikely that the past practice of maintaining or even raising the level of recruitment in spite of a standstill in enrolments (or of their decline, in the case of primary education) can be continued.

There are no easy remedies. An obvious solution, and the one which we favour, would be to establish new criteria for teacher appointment based on objective assessment of qualifications and competence rather than exclusively on seniority. But we recognise that this would be strongly resisted. Abolishing the waiting list would amount to depriving many thousand "unappointed" teachers of a certain, even if delayed, job prospect. Early retirement schemes would be too costly. Hence, a well-conceived and well-funded pre- and in-service system, accompanied by measures that affect the promotion and salary progression chances according to the fulfilment of training obligations, seems to be the only realistic alternative. Never-

theless, an open discussion of several alternatives with the teachers and their representatives could lead to a breakthrough if it can convincingly be demonstrated that the present system can only lead to further deterioration of Greek school education.

The training and appointment of school principals is another touchy issue. Seniority is the only formal criterion. But we were told that political considerations also play a large role and that any change of government leads to a massive replacement of school principals. The politicisation of public life in Greece thus reaches down into schools and represents a serious obstacle to the functioning of the educational system.

No mention is made in the Background Report of any special training for school principals; neither, for that matter, of training for other management functions. In our view, the sooner training of principals and of other management staff is provided and made mandatory, the better. The matter is all the more urgent now that rapid progress is made with decentralisation and with greater school autonomy. The margin for initiative on behalf of the schools and of their principals will gradually widen. Many local authorities wish the schools to become more enterprising. Besides, many of them have themselves little management capacity and even less in-house pedagogical competence. The burden of exploiting the newly gained power lies, therefore, in the first place, with the schools themselves.

The idea has been put forward that the schools themselves, instead of the Ministry, should become the legal employers of the teachers. Parents would be given a role in the appointment and promotion of teachers, presumably through the Schools Councils. This would certainly be a radical and beneficial innovation. The attributions of the School Councils could be enlarged to include responsibility for all staffing matters. Some involvement of the local educational authorities will, however, remain necessary in order to ensure an optimal utilisation of the staff resources in the region and in order to help those schools that themselves cannot muster the required expertise.

We recognise that any move in this direction is likely to be strongly resisted by teacher organisations anxious to maintain the security of the existing civil service status of their members. In this, as in so many other areas, change can only come about on the basis of consultation, leading to mutually accepted solutions that safeguard the legitimate interests of all parties concerned.

EFFICIENCY AND PERFORMANCE OF THE SCHOOL SYSTEM

On many occasions during our visit remarks were made and opinions voiced about the efficiency and performance of the Greek educational system. Repeatedly, we were told that the Greek system produces competent people. But we tend to

agree with several of our interlocutors who thought that this was in spite of the system rather than because of it.

Greece has an excellent record of pupil retention. According to OECD data in 1988/89, enrolment ratios for the 15-year-olds were 88.1 per cent, for the 16-year-olds 84.6 per cent, for the 17-year-olds 58.5 per cent, and for the 18-year-olds 18.1 per cent. Of 1 000 entrants to the primary school in 1985/86, 862 are expected to complete the *lyceum* in 1997. For the 1975/76 cohort this rate was 673 per thousand. Not less than 923 of 1 000 entrants to primary education reach the third and last form of upper secondary education (see Table 7.1 of the Background Report, and *Education in OECD Countries, 1988/89 and 1989/90*, OECD, 1994, Table 4.3).

These rates are excessively high and their accuracy should be checked. But at any rate they tell as much about the real performance of the system as about the absence of assessment in Greek primary and secondary education. For beyond quantitative "retention" the system should produce good quality, and here probably lies the major problem in Greek secondary education.

We have already indicated that the system does not seem to have eliminated social bias: the access to vocational and, to a lesser extent, to technical education continues to be strongly dependent on social background. It may be assumed that, besides other factors, the ability to pay for private tutoring plays a role in this. It seems likely that the *frontisteria* system undoes a great deal of the formal opportunity that the public system promotes. The Background Report further provides a few data about the gender bias (see Figure 7.1 of the Background Report), at least in higher education. It is very likely that this bias is already effective in secondary education, in particular in the choice of DESMIs.

The *frontisteria* are an important element in any discussion about the performance of the system. Bluntly speaking, they have to be seen as compensating for the poor performance of public education. But it may well be that the ability of Greek education to produce competent people is to a very large extent due to the private cramming courses. If this is so, two remarks are called for:

- The final performance of the system is at a high cost. To the 4.2 per cent of GNP spent on public education must be added the cost of private tutoring. We have not been given reliable figures as to this cost. But in 1979/80 there was an estimated number of 1 232 Ministry-approved *frontisteria* enrolling 176 226 students. In 1983/84 their number had shrunk to 1 132 and the student number to 82 598. We got, however, the impression that since then the numbers have again increased. At any rate, we were told that nearly all secondary school children follow private courses. For the mid-1980s a cost figure of Dr. 2 billion was mentioned. Taking into account inflation and a likely increase in numbers, the present cost can safely be estimated at a

minimum of 7 or 8 billion Drachmae. (To this must be added the cost of some 30 000 Greek students in foreign universities.)

- The private tutoring system absorbs a great deal of the human and financial resources, to the detriment of the resourcing of public education. Pupils and teachers save much of their time and energy for the afternoon private courses. Parents are not willing to invest in public education as long as investment in private courses yields a much higher return. Any attempt to raise the resourcing level of the public system is doomed to fail as long as a more performing private system competes for these resources.

The Greek system rates very favourably on indicators such as drop-out and repeating. But here again the figures do not mean very much, because of the absence of valid performance indicators.

Our main conclusion is that the Greek educational system, because of the way in which it operates, thwarts any attempt at seriously judging its efficiency and performance. Only systematic assessment of pupil and student performance on validated criteria would make it possible to draw conclusions. Such assessment could use longitudinal comparison of performance over time, or horizontal, comparing Greek educational performance with that of other countries. At present, neither is available. We recommend, therefore, that high priority be given to the establishment of systematic and objective achievement measurement throughout the system, as spelt out in Chapter 4 of our report.

EDUCATIONAL SUPPORT FUNCTIONS

Statistical data

The collection and processing of statistical data in Greece are mainly the responsibility of the National Statistical Service. However, according to the Background Report, the Service, due to lack of resources, is about ten years behind in its collection of data on education. The Statistical Unit in the Ministry of Education seems to suffer from a similar shortage of resources. A chaotic and wasteful network of data collection within and outside the Ministry (the Pedagogical Institute also collects its own data) has resulted. The multiple overlapping requests for data exasperate the schools and nobody seems to be in charge of bringing some order in this chaos. A strong relevant recommendation from the UNESCO International Institute for Education Planning (IIEP) was not followed up and it seems that the situation has since (*i.e.* the mid-1980s) further deteriorated. We were able to see for ourselves on the spot that essential data were not available and that on many matters widely diverging data were being used.

This state of affairs represents a serious handicap to educational policy making and management. We therefore fully back the recommendation in the

Background Report which states that it is "(...) imperative that steps are taken towards the creation of a modern, comprehensive and efficient Information Base, facilitated through new technologies and which will provide both to domestic and international users (...) qualified statistics and indicators". The report mentions that discussions have already taken place about the establishment of a "Committee for the co-ordination of statistical information and questionnaires". We strongly recommend that these discussions be carried out as rapidly as possible and that pertinent decisions be taken and implemented without delay.

Guidance and counselling

A second major function consists in advising, guiding and counselling the educational actors at all levels, particularly those in local administration and in the schools, from principals to pupils and parents. This task is at present entrusted to the School Advisers who are attached to the regional/prefectural educational administrations under the supervision of the Pedagogical Institute. The administrative and the pedagogical advisory tasks are entrusted to different officers. These advisory functions have developed out of the former inspectorates. The limited number of advisers restricts the scope of their activity to in-service training and to support for teachers; but as there is often only one adviser for 150 to 200 teachers, even this task cannot be performed satisfactorily. There is no room for individual pupil guidance or counselling, neither for reporting on individual teachers.

From our discussions we gained the impression that the advisers do not play any significant role towards either the schools or the teachers. They seem to be mainly concerned with informing and advising the regional educational offices to which they are attached. It may be advisable to closely scrutinise their present attributions. Their two-fold task – towards their "superiors" and towards schools and teachers – may be difficult to combine, in addition to the fact that obviously the resources available for this double purpose are inadequate.

Pupil counselling is, as already indicated, almost non-existent. Many teachers recognise, however, that professional external advice would be helpful, in particular for pupils with learning difficulties. But the automatic promotion practice conceals much of the system's malfunctioning. As a result, no data exist about the potential clientele for pupil guidance and counselling.

Educational research

A third support function is that of educational research. At present the educational research effort is spread thinly across the Pedagogical Institute and the educational departments of most Greek universities. Some education-related research is also carried out within specialised social research institutes, but overall research capacity remains limited. Furthermore, there seems to be no programme,

nor a structure, that could give guidance to the research activity, either in the universities or in the Ministry. The Pedagogical Institute largely determines itself its research programme, but often it responds to specific requests from the Ministry of Education. The incidental research reports from the university side, on the other hand, have a very limited impact and are probably often given more attention abroad than in Greece. A strategy for policy-relevant educational research is badly needed.

The Pedagogical Institute

The Pedagogical Institute is the central support institution. It disposes of an important number of staff (several hundred), of whom there are about 100 detached teachers, and a great number of counsellors. At present 80 per cent of the latter posts are not filled. Thus the capacity of the Institute to carry out the many tasks that it is expected to fulfil is strongly reduced. But there are other reasons why the Pedagogical Institute does not function satisfactorily. It is, on paper, an independent institution, but in fact it depends heavily on central administration which seems to consider that the *raison d'être* of the Institute is to serve the Ministry's interests and not those of the schools. In consequence, schools and teachers do not seem to expect much from the Institute which is perceived as being too remote from their concerns.

The Pedagogical Institute has among its functions the development of the school curricula and the preparation of textbooks. This is in itself a vast enterprise which absorbs a great deal of its resources, even if the actual publication of the textbooks is carried out by a special service of the Ministry.

It would be advisable to restrict the involvement of the Institute to the definition of general guidelines and policies that should steer the actual writing of the textbooks. The preparation of the textbooks and their publication should, in our view, be left to free market initiatives. The Institute could, however, be in charge of the approval of those textbooks that can be used in public education, it being understood that the principle of the single textbook is abandoned. Energy would thus be released for other tasks. Among these, educational research and the steering and monitoring of innovation should be given a large place. This may require changes in the staffing of the Institute, which could be greatly facilitated by the formula of the detached staff.

But there is another, equally important change to be made: the working relations of the Pedagogical Institute with the Ministry of Education on the one hand, with the regional and local educational department on the other, as well as those with schools and teachers should be overhauled and be based on the real demands of these partners. Procedures would need to be installed to register these demands and to translate them into programmes of work.

At present the link between the work of the Pedagogical Institute and central educational policy making is unclear and the intermediary structures that should make it possible to connect educational research and innovation with policy making and administration are lacking or are not functioning satisfactorily. The reason, for that matter, may also lie in the way in which policy is made and legitimated: in an excessively politicised practice of policy making there is little place for rational and "objective" information, except in as far as it can fulfil a legitimising role.

The decentralisation currently underway imposes new tasks on the Pedagogical Institute. The regional and local administrations need information and guidance in order to carry out their new tasks. At present, the Institute is not capable of providing this assistance. Dearth of material and personnel resources is not the only reason. There is also the problem of the nature and the quality of its work which is not adapted to the needs of these users with their specific requirements and conditions. The possibility of branch offices of the Institute has been raised. It is not necessarily the best solution. One may also consider the creation of a small number of semi-autonomous institutions in the regions, closely linked with the universities, which for a major part would rely on work that is contracted on the "free" national and international market. The Athens Institute could, on a contract basis, become one of the "providers" of the required research and innovation work, but it would have to compete with other providers. These regional institutes could also be in charge of providing guidance and in-service training to the local educational advisers who would be given a more independent professional status than they have at present.

The question must finally be raised whether the concentration of so many functions in one single large institute is the best formula. The possible "regionalisation" of part of these functions, as suggested above, should result in alleviating the administrative structure of the Institute. In addition, it is a matter for consideration whether such functions as in-service training of teachers and curriculum development could not better be carried out by an autonomous service. The overall result would be a more manageable Pedagogical Institute that would concentrate on a small number of R&D tasks, assessment and evaluation being one of the most central ones.

Consideration should also be given to the specific needs and interests of vocational and technical education. The "fors" and "againsts" of serving this sector in one comprehensive support institute or of creating a special service or institute for vocational and technical education must be carefully weighed.

Government must realise that its close control over the support services is almost bound to affect negatively the quality of the services that are provided. A much greater and real autonomy than they have at present is a condition for their improvement. The statutes of the Pedagogical Institute may need to be revised accordingly.

CONCLUSIONS AND PROPOSALS

Our discussion, in this part of our report, has ranged over the whole spectrum of issues in school education, focusing on those points which seem to us to call for special attention. Cursory as this discussion may necessarily have been, we believe that the suggestions we put forward, all directed at improving the position of schooling and raising its quality, could serve as a useful basis for further educational policy-thinking and action in Greece. It would be convenient to provide here a summary of our proposals.

The main needs are as follows:

- a policy plan to be prepared for the maintenance of adequate educational provision in the sparsely populated and remote regions;
- an emergency programme, with specially-allocated funds, for the provision and improvement of school facilities (buildings and classrooms, equipment, maintenance) in those cases where at present they do not meet minimum requirements;
- a study into the most urgent needs for additional pre-school provision, in particular in the urban areas, and how these needs could be met;
- better co-ordination of policies and management for pre-school and primary education in order to ensure a better transition between pre-school and primary school;
- provision of special support for children with learning or adaptation problems in the first years of primary education;
- re-consideration of the nature and the quality of the certificate given at the end of primary education in order to make it an effective document that guides teachers and pupils in the gymnasium;
- consideration of the possibility of curriculum choice and differentiation in the last grade or the upper two grades of the gymnasium;
- adoption of emergency measures in order to reduce regional disparities in early drop-out from compulsory schooling and early school leaving;
- improved provision of school-internal and school-external guidance to pupils in their choice of upper secondary education;
- review of the procedures and the criteria for granting the leaving certificate of the general lyceum, in order to give it a value in its own right and to adequately reflect the curriculum objectives given to the lyceum;
- rigorous promotion of the polyvalent lyceum and study of the possibilities of reducing its unit costs and its overall size;
- reconsideration of the division of tasks between the technical lycea and the IEKs. The IEK should be encouraged to maintain its flexibility in responding

to a wide variety of needs and to improve its adaptation to local economic interests;

- raising the status of technical and vocational education by, among other things, widening the possibilities of access to further, higher education and by adapting its management structures in order to better respond to the interests of the local economic community;
- review of the distribution of responsibilities between the Ministry of Education, other ministries and the Manpower Employment Organisation (OAED) towards a more rational and co-ordinated structure;
- a full revision of the instruments and methods for defining and implementing curriculum reform for all school education;
- revising the provisions for school-internal and school-external pupil guidance and counselling and clearer definition of respective responsibilities and competences at the national, local and school levels;
- enlargement of the possibilities for adapting curricula, of technical/vocational as well as of general education, to local and regional needs and conditions, while at the same time providing adequate guarantees for maintaining an educational service that meets the national interests and that warrants equal educational opportunity;
- in the above context, definition of a national core curriculum to be developed for all secondary education;
- improvement of the data base for measuring the performance of the educational system and the needed competence to be acquired at all levels of the system;
- redefinition of the tasks of the Pedagogical Institute and consequent revision of its management structure. The advantages of creating special institutes for such vital tasks as curriculum development, guidance and counselling, performance measurement and teacher pre- and in-service training should be weighed against those of redefining the relevant tasks of the Pedagogical Institute and restructuring its management structures accordingly;
- entrusting the responsibility for collecting and analysing educational statistics to one agency and improving drastically the quality of the statistical data base.

HIGHER EDUCATION

Three characteristics are outstanding in the Greek higher education system. It has expanded enormously since 1980/81, from over 120 000 to just under 300 000 enrolled students in 1993/94. Secondly, it benefits from the all-pervading ambitions of Greek families for the advancement, through education, of their children. Thirdly, however, given the increase in resources and strong social support that it attracts, it is astonishing that the system is so ill-fitted to meet the present and future demands that should be made of it.

Greek higher education is caught within a cat's cradle of economic circumstances and political and cultural policies and assumptions. These inhibit its ability to meet the needs of Greece as it takes its place among the most developed nations of the Western world. Its educational style is both the product and the producer of an upper secondary system which puts a premium on rote learning and memorisation. Its content and ways of working are conditioned by factors exogenous to learning and scholarship, including a high level of politicisation, tight coupling of higher education to certification for one major segment only of the labour market, and a bizarre rendering of principles of equality and equity that does little to reduce social inequality.

All of these influences are reinforced by a governmental and administrative system that depends upon archaic principles of control; these pay no heed to the need for institutional and professional self-development, or, for that matter, the principles of good public administration. There is a lack of trust between government and the institutions and between professors and their students which signals the need for radical reform of both the administrative and the educational procedures at present in place.

The economic context affects higher education deeply. Certification for the labour market is its key imperative and it is that which accounts for the strong pressure on higher education places. That imperative is accentuated by the acute level of unemployment. First time job seekers, mainly young people, have the highest unemployment rate. The unemployment rate is more than 30 per cent of people under 25 years and 6.5 per cent for people over 25, as already noted.

The Greek economic and social system favours job stability in almost all occupations. The large number of people working in the wider public sector have a job guarantee; massive lay-offs in the private sector are also difficult because of the law forbidding dismissals of more than 2 per cent of the labour force per month, so dismissals are rare. This underlies the premium put on appointment from long waiting lists, rather than on merit or suitability for the job.

Higher education is thus caught within constraining employment arrangements and cultural assumptions that go well beyond its own boundaries. At the same time, if Greece is to emancipate itself from practices conducive to inefficiency and inequity, higher education would be no bad place to start.

MANAGING THE DEMAND FOR HIGHER EDUCATION

Greece does not stand low in the list of OECD countries in terms of its people's participation in higher education. Between 1960-84 the number of students in higher education rose by a factor of nearly-6; those studying abroad rose by a factor of 7 between 1965-74. In the 1980s higher education enrolments grew, although much of the expansion of numbers was due to student retention rather than increases in first time registration. In 1992, 28.1 per cent of 18-year-olds entered higher education but no less than 47.4 per cent of 18-21-year-olds were enrolled. 12.5 per cent of those between 25 and 64 years had participated in tertiary education in 1991, and the ratio of men to women was 69 to 100, lower than in some countries, but on its way to parity. Yet candidates for university entrance stand a chance of only one in four. The numbers attempting to enter have risen and the number of those failing to enter has risen with it. Another third enter Technological Educational Institutions (TEIs), and many of the others attend the Centres for Liberal Studies or take places in universities abroad.

The demand for higher education is great, in spite of the inability of the labour market to absorb all of its graduates in jobs appropriate to their educational level. We share the view of parents, students and many others in Greek society that even if jobs are not available, Greece will benefit from a highly educated population, particularly if reforms are made in the content and style of what is offered to encourage the creativity and initiative which will enhance economic diversity and performance.

At present, however, demand is managed by observing what we have called the principles of mechanistic equality rather than of either human resource planning or of the free market. No attempt even at indicative planning is made; in determining the numbers admitted to university on a *numerus clausus* principle no account is taken of the needs of the economy or of the likely retirement patterns of the public services to which the great proportion of the graduates are destined. We do not propose that Greece should follow any simple manpower planning procedures

which have proved inefficient elsewhere. But we do suggest that an economy which has so far failed to exploit fully and to market the prodigious agricultural capacity of the country, and which has as yet failed to catch up with the many sophisticated technologies, could provide higher education offering a better balance between general and humanistic education and education that will produce highly trained manpower for a changing labour market.

ENTRANCE EXAMINATIONS

Because the universities do not meet the demand for places, in spite of large increases in numbers of enrolments and the recent creation of new universities, there is a debilitating competition for places which affects the quality of education offered in the lyceums and conditions student academic habits in higher education. The examinations are conducted with scrupulous concern for objectivity and security but are widely regarded as archaic in style and content in that they depend on the memorisation of a large amount of facts or of set procedures and hardly call upon candidates to display individual judgement or creativity. Our scrutiny of examination papers in four subjects confirmed this opinion. They also encourage intellectual parochialism: for, example, the history examination was wholly devoted to Greek history, all the more bizarre in that Greece's future depends to a large extent on its ability to work and produce co-operatively with the rest of Europe and, indeed, the whole world. Where exercises are set that seem to test the ability to use formulae or to construct foreign language responses, these are all a replication of the very exercises that can found in the prescribed text books. Hence the flourishing trade in private cramming schools. The examinations also encourage over-concentration on the examined subjects.

The reasons given for these contra-educational practices are that they make patronage or clientage impossible, and that questions requiring the exercise of judgement would allow examiners to favour opinions acceptable to themselves. The entrance examination system is thus a prime example of the lack of trust in teachers and examiners, the eradication of which, in its present form, must be a prime objective of educational reform.

These academic attitudes are then reiterated in the single-text book characteristic of higher education itself which are then recycled to the schools where most graduates will eventually find employment as teachers.

We emphasise that education should be an enjoyable and stimulating experience. Needless memorisation and frustration of creative and individual work are punitive experiences. Greek education should be reinforcing the natural creativity and enterprise of its people, and not stultifying them, particularly during the years when young people are at their most optimistic and energetic.

EDUCATION OVERSEAS

There is a costly egress of students to foreign universities. Some take this option because they are dissatisfied with the quality of what is offered at home. But many spend large sums in finding places in universities abroad which are reputedly less good than their Greek counterparts. In 1994 over 29 000 were studying in foreign universities, of whom 6 500 were postgraduate students. There ought to be ways of using these monies to expand and strengthen the Greek higher educational system.

NUMBER AND VIABILITY OF INSTITUTIONS

There are 18 universities, eight of which are located in Athens. There are 12 Technological Educational Institutions (TEIs). This gives Greece a somewhat larger number of institutions than the OECD norm of one university for a population of one million, but centres of population are dispersed. Some institutions are, however, quite new and small and the paucity of resources allowed to institutions inevitably raises questions of the range and quality of what can be offered.

Proposals on numbers

Most informed Greeks are already aware of what must be done to remedy the unsatisfactory access system, but it is also clear that to achieve change will require a major cultural shift and careful recruitment of diverse political interests. The main points for attention are:

- A thorough appraisal should be made of the needs of the economy and of the extent to which higher education provision is matched to them. It is widely recognised that university offerings are matched far too much to the expectations that most graduates will seek employment in the public sector and that Greece's economic potential is not well served by the existing patterns of courses.
- A thorough estimation should be made of the true capacity of the universities. Relatively small annual enrolments are enforced by the retention of large numbers of students who do not complete their courses within a reasonable period of time, and the large number of "inactive" students who further swell the enrolment figures. This tolerance of non-active students is allowed mainly for political reasons. Higher education has in fact the function, not unfamiliar elsewhere, of "parking" the unemployed. It may be desirable that unemployed young people should be able to retain some occupational identity which can be provided by registration for higher education. But it leads to distortions of the enrolment figures and may mean that fewer admissions each year are allowed than are required to meet demand.

More important, it seems appropriate that institutions should require some kind of continuing educational activity on the part of those who are enrolled, even if they are unable to participate fully in the courses being offered.

- Informed opinion believes that more students could be admitted if professors' average teaching duties were increased to more than the present 3-5 hours a week. This would involve a careful elaboration of teachers' duties and conditions of service. Salaries are too low to ensure that teachers do other than regard their jobs as part-time. A full-time commitment in return for adequate pay should become the norm. We make proposals for staff development that should accompany such changes.

- On the basis of needs and capacity estimations admissions should be determined through negotiation between the Ministry and the universities. There are justifiable complaints that large increases are decided by the Ministry unilaterally and without proper notice, often the last moment, apparently in response to political rather than manpower or other needs.

- The number of places could be increased if they could be funded by local authorities and by private donations, scholarships and sponsorships. Local taxes could thus be recruited to meet local demands for places.

- If the state universities became stronger, academically, economically and institutionally, it might be possible to authorise certain forms of private higher education to produce graduates with the same professional rights as those from state universities, but at no cost to the tax payer, and only after rigorous accreditation of courses. We recognise that to thus sponsor private higher education would run counter to a deep belief that higher education should remain a public provision. But it is clear that public finance is not capable of meeting the demands for university education, in spite of the recent gradual increase in the higher education budget.

- Many parents are already paying high fees for education followed abroad. The numbers of Greeks studying abroad account for 35-40 per cent of those studying in Greece. In 1988 this cost about 30 000 million drachmas a year, or half of the total cost of higher education in Greece. This is a waste of Greek resources, inasmuch as it includes education that could be provided at home for the same or less cost. It is also evidence that it would not be politically impossible to charge fees, and to reduce students' rights to free text books and food, as long as a liberal scheme for enabling the less well off to participate in higher education accompanied the reinstitution of fees which were charged until 1965.

- We understand that the right to free education is enshrined in the Constitution. But apparently this does not include the right to free food, lodging and

texts all of which accentuate the creating of a young pensionariat debilitating to the exercise of good education.

- The restriction on the recognition of doctorates earned abroad at reputable universities by those without the possession of the presently recognised Greek diploma should be removed, in line with the trend under EU general practice.
- A further measure to meet demand would be the accreditation for upgrading of TEI courses to which we refer later. In addition, the establishment of the Hellenic Open University could be a flexible alternative to the existing provision.

The quality of higher education

In spite of the great demand for it, university education falls short of what a people so committed to education has a right to expect. One commentator has described the faults as follows:

> "With no effective criteria and modes for evaluating teaching staff, undergraduates and academic competence; with no institutionalised research, nor really structured postgraduate courses; with many professors considering – by necessity or not – their jobs as subsidiary, and a large percentage of "undergraduates" who in certain disciplines (*e.g.* social, economic and political sciences) are never seen in class, it is doubtful if one can really speak of a "university" at all. To be even more precise, within the European context most of the major issues in the ongoing debate on higher education, irrespective of their content and orientation, are non-issues in Greece.
>
> (...) The structure of courses is adapted to the specific aptitudes, ideologies and ongoing interests of the teaching staff, irrespective of internationally accepted epistemological criteria and of social, economic and cultural needs. Ninety per cent of staff are tenured and there are few visiting teachers. Obligatory core courses are adapted to the senior professors' interests and optional courses are left to junior teaching staff. Scientific and research work is narrowed down to adapt to the minimal preconditions of promotions instead of being used to develop the interests and curiosities of the individual academic in directions which would vitalise the undergraduate curriculum and postgraduate research programme."
>
> (Stephanos Pesmazoglu, "Government, Ideology and the University Curriculum in Greece", *European Journal of Education* Vol. 29, No. 3, 1994, pp. 291-304)

These criticisms, which are consistent with what we have heard from many others with whom we have discussed the quality of Greek higher education, are not

of course meant to apply to all universities. As in other countries, there are big differences in quality and performance among universities, as well as between faculties and departments in the individual universities.

The same commentator also points out that "a major external determinant of university functions and of the nature of the learning process is the long standing role of the state as the employer of the vast majority of graduates". This has far reaching implications for the organisation of studies, the curriculum and the weight of various disciplines. "The universities' primary function (is) the production of civil servants, bank employees and teachers for the entire education system." This accounts for the over representation of certain disciplines. Few are linked with the major productive sectors of the economy and then only indirectly.

We have noted the following criticisms of academic quality and behaviour:

- The universities take in able students but many are then trained rather than educated, because of the dependence on set text books and lecture notes written for fees by their professors who thus have a financial interest in producing texts for a monopoly market. We are told that some professors do offer book lists which should enable those students who wish to go beyond the set text book, but the libraries are inadequate, key foreign texts are sometimes not available in translation, and students are not in the habit of buying their own copies of monographs or other texts.
- Assessments tend to be related to what can be found, and presumably memorised, from the set text. The modes of assessment, which are in the hands of individual professors without external moderation, make no allowance for independent thinking, and, indeed, professors are sometimes under pressure to give good grades irrespective of the quality of students' performance.
- Teachers complain of the overwhelming burden of grading students at the end of each course in each semester. But the grading seems to have no function in the adequate monitoring of student performance or in giving feed-back to students. The whole structure of assessment seems to be in need of reform.
- Because text books are free there is little use of libraries which are poorly stocked. The money spent on free texts should be transferred to library purchases. This should lead to production of wider range of literature which will enhance the scholarly output of professors and give students more choice in their reading.
- Departmental structures remain impermeable so that joint or interdisciplinary degrees are not possible.
- Students are not free to pursue the subjects of their own choice. They are required to opt for one of four groups of subjects and are then allocated to

what is available, according to their position in the competitive entry examinations.

- Within courses leading to the diploma students have little choice between optional subjects. Credit unit systems suffer from disadvantages but do allow free movement between academic preferences.
- Students are allowed to continue with free tuition after failing assessments. Some power to relieve the universities of unwilling or incompetent students is necessary, perhaps by assessment of total progress at the end of the second year. We understand that an attempt to introduce such a provision was withdrawn because it encountered strong opposition. Excessive continuation should be discouraged by the imposition of tuition fees once the right to a second attempt is exhausted.
- The presence of non-active students is presumably allowed because it is a method of "parking" the young or, in some cases, the not so young, who would otherwise be unemployed. Universities do indeed provide an identity for young people who might otherwise be simply unemployed. Because, however, movement through the system is thereby slowed down, fewer admissions each year become possible because the numbers of non-active students are not accurately recorded.
- Many professors have second occupations and, in order to discourage this, recently a 35 per cent addition to salaries is allowed to those without outside employment. The employment of part-time teachers may be beneficial in some, particularly applied, subjects but only if there is a substantial core of full-time teachers engaged in curriculum development, and the effective teaching and counselling of students. We have been told, and not only by students, of the lack of care for the tutorial and teaching functions displayed by some professors with whom it is often impossible to have any advisory or other contact. This is partly the result of many teachers regarding their duties as part-time work to be supplemented by other occupations.
- The pressure caused by unemployment encourages students to hang on and expect predictable teaching and assessments to secure grades enabling them to queue for public sector jobs.

We believe that full scale evaluation of teaching will do justice to those who do perform their teaching duties well and encourage the participation of senior academics in the development of the curriculum and the effective organisation of teaching arrangements and groups so that student get the help they need. If teaching practice comes more into line with perceived student needs this will surely increase social approval of the universities and support for better conditions for their staff.

RESOURCES AND FUNDING MECHANISMS

Increases in student numbers are imposed on the universities without notice or a commensurate increase in resources. The decision is taken late every year and based on political considerations, even though, by experience, universities know roughly what to expect!

Nor are the institutions given freedom or incentive to engender their own sources of income. There is excessively tight financial control. They are controlled on budget by line items. Law 1268/82 on the structure and functioning of universities states that institutions are completely self-governed. But there is mistrust between the government and institutions which exaggerate their needs because they expect the government to cut them arbitrarily. Attempts to formulate criteria have failed. The mistrust that prevails between institutions and government, often exacerbated by mismanagement, is demonstrated by the fact that in 1984 the grants received by universities varied from 23 to 93.6 per cent with an average of 52.1 per cent of the amount requested of the government. Complementary grants in the middle of fiscal year often have to be paid. Other institutions were not capable of spending the full amount of their appropriations. Institutions do not have freedom to reallocate resources among various budget items and monies have to be returned unspent. Planning is impossible because they have no idea what money they will get next year. Audit is not directed to improvements in the current system.

Recruitment of teaching staff is formally the responsibility of the ministry so that the institution cannot ensure that staffing relates to the numbers of students, the improvement of quality and research.

In general, the system suffers because of the almost exclusive dependence of institutions on the public budget, the absence of allocation criteria which enable institutions to estimate their budgets based on student and teaching staff activities, and the lack of criteria enabling a just allocation to be made. As a result, allocations are based mainly on the past year's expenditure and guesses at additional needs. It is to be noted, however, that, as far as university research is concerned, considerable additional funding comes in from industry and European Union sources and much allocations are accompanied by acceptable forms of evaluation.

It is essential that Greek universities are treated as mature institutions which should be able to determine their own future through the use of funds allowed them within an effective and transparent national planning framework, and with accountability ensured through strong evaluation procedures.

PATTERNS OF GOVERNMENT

The governance of Greek higher education institutions involves three linked elements. There is first the degree of autonomy from the state that they enjoy, and

what should be the resulting relationships with the state. The second issue concerns the requisite pattern of internal governance. The third issue is the relationship between the institutions and external bodies other than the state.

On the first issue, it is clear that institutions already enjoy autonomy on the key issues of what will be taught and what will be researched. Indeed, our proposals for external evaluation imply that some of those freedoms should be moderated by the introduction of external peer monitoring. They do not, however, have any of the autonomy over the conduct of their corporate affairs that would result from a rational system of financial and personnel control. The leading universities in the world negotiate their budgets with the state, or in the case of private universities, their trustees, and then are free to allocate money to the purposes that they define for themselves.

It is not surprising that the planning capacity of Greek universities is weak, because their main sponsor is the Greek government which enforces a decision making framework that does not encourage good institutional planning. Universities and TEIs should be expected to create an institutional plan that goes forward to reasonable time horizons, that judges the type of courses that should be provided in order to meet students' needs and the needs of the economy and society, that estimates the kind of staff, physical plant and equipment that is needed, and negotiates on that basis with the government. The controls on expenditure should rely on agreements reached on objectives and on ensuring that spending is related to them. The present requirements of Ministry approvals should be abandoned because they are based on no rational considerations.

It is said that giving freedom to institutions would invite the operation of patronage. This invokes a problem running throughout the education system, namely the lack of trust. It should be tackled by effective audit systems and transparent appointments and contracting procedures of the kind which universities in other countries have found it possible to work within, without restriction on their freedom.

A thorough examination of existing controls is needed and this should lead to a bonfire of unnecessary impediments to institutional development.

Self-governance, however, transfers problems of management to the internal structure and the following points arise:

- Outside groups, including employers, could be involved in universities, perhaps by the establishment of advisory groups who could strengthen the credibility of universities.
- Greater freedom for universities must mean the creation of effective management and planning within universities. This may mean some shift of power to rectorates; the resulting relationship with senates on decision-making will

require redefinition. It will also throw into contention such arrangements as those whereby undergraduates have equal representation in electoral bodies as members of academic staff, and rectors have tenure for only three years.

- More enlightened approaches to teaching, university governance and evaluation will require well planned and authorised staff development of faculty and administrators.

Consideration must also be given to the role of the student unions. After the collapse of the military regime in 1974, "party politics were brought directly into university administration". Formerly 50 per cent of places were taken by student representatives but "in effect there was student majority rule". It has been said that "by the mid-1980s what was left from a fragmented party-dominated syndicalism could be summarised in one word: favouritism. Student representatives were pursuing favourable provisions such as securing the minimum possible number of pages to be examined and securing numerous exam periods each year, therefore inducing adaptation of the curriculum and teaching methods to these ends and forcing vulnerable teaching staff to grant a pass grade to those who failed exams. Educational aims linked to the structure of the academic curriculum or content of studies were absent" (Pesmazoglu, 1994).

We have been unable to fully ascertain the validity of this critique but have been made aware of what seems to be an unacceptable level of student pressure on teachers in such matters as retaining the single text book and in resisting competent assessment procedures. These matters are rightly within the professional competence of higher education teachers, and although students' views should be taken into account, they should certainly not determine such issues which concern the duty of universities to certify the competence of those they graduate. But students also maintain that political or other forms of bias and favouritism will enter into assessments if the present practices are not maintained. Thus a bad system is maintained for fear of worse. This line of argument should not be acceptable. Higher education teachers should be safeguarded from such pressures by strong forms of external assessment which put the fear of bias, clientism or favouritism out of court. We turn to proposals covering the whole of education in these respects in Chapter 4 but here propose that all assessment procedures should be subject to external moderation.

A charter stating the duties, obligations and conditions of work for both teachers and students should be directed towards the creation of full professionalism which is definably concerned with advancing the welfare of students and their education rather than responding to political or patronal pressures. The credibility of Greek higher education will become all the more important as links with the rest of Europe are strengthened.

GRADUATE STUDIES

A high proportion of those with advanced academic training have received their doctorates abroad. This may be desirable in a system which is just getting underway, but it is leading to undesirable effects in that the Greek doctorate is not held in sufficient respect, and the level and amount of research undertaken in Greece in relation to the total size of the higher education system and the country as a whole is small, even though research done in universities is disproportionately higher than that in industry

A review of existing doctoral and other advanced training is necessary and this should be coupled with an examination of existing research activities in universities and TEIs. This should be a preliminary to consideration of a plan for graduate education which should take account of the future staffing needs of higher education and industry and business. This is all the more important because otherwise developments may occur opportunistically rather than systematically as a result of the somewhat random donations made by the EU to research programmes in member countries.

UNIVERSITIES AND TECHNOLOGICAL EDUCATION INSTITUTIONS (TEI)

The demand of non-university post-secondary institutions of the right to offer degrees follows a pattern of evolution familiar in most countries. It is one that has been allowed in some other countries where a binary system is in place.

Two separate questions arise from such demands. First, what are the scope and type of course offered? This depends on how higher education of a degree-granting level is defined. The second question is whether the courses offered are in fact of a degree level.

On the first question, higher education's core activities derive from the creation and use of knowledge that is tested, verified and applied according to the rules of logic, evidence and demonstrability which academics create. In many areas academic creation of knowledge is, of course, affected by interaction with outside sources of knowledge. In its teaching functions higher education is defined as the post-school study which takes place in institutions in which the staff is engaged in or conversant with knowledge coming from research or scholarship. This includes in many countries those institutions whose teachers are more concerned with the application and transmission than with the generation of knowledge but whose work is grounded in current research, development and scholarship.

Such a definition would be the test of degree level work, rather than teachers' possession of a doctorate, which is being questioned elsewhere as a necessary qualification for teaching to the first degree level. Other considerations apply when post-graduate qualifications are offered.

Given the wide range of both the teaching to be performed and of staff qualifications in TEIs, it seems necessary to specify the requisite qualifications for each type of course and it would thus be inappropriate to tie either the salary gradings or the academic designations to those of the universities. In particular, the title of professor should be reserved to those who have demonstrated leadership beyond the confines of their own institution in the scholarship and research of their subject area.

It is possible that some TEI work could be defined as to its content and teaching objectives as higher education – it was outside our remit or resources to assess the courses now on offer. But there remains the quality dimension. Acceptance of courses as being of a degree level would require accreditation procedures in which curricular objectives and content are judged, the qualifications of teachers ascertained – and these do not always need to be those of the traditional university teacher – the assessment procedures monitored and, if possible, the quality of teaching directly observed. Mechanisms involving the TEIs, the universities and the employing professions would need to be established. These procedures have been found possible in other countries. We hope courses of such a level will increasingly be on offer and accredited accordingly.

We emphasize that this would not mean that TEIs would "become universities". Accreditation would be of courses, not of whole institutions.

The admission of TEIs, on these rigorous conditions, would have several advantages. It would add to the stock of acceptable, if not the most preferred, courses at a time when pressure on the universities is great. It would make it possible for a range of subjects which lay claim to using disciplined enquiry in the solution of practical problems to be tested and recognised for their academic credibility. The possibility of accreditation would raise the quality of student entrants and of TEI staff. It would also raise the larger issue of the relevance and quality of teaching in both sets of institutions, both of which should be subject to evaluation.

RELATIONS WITH THE WORLD OF WORK

In one sense, Greek higher education is too strongly connected to the world of work. Its graduates are mainly destined to enter the public service and it is this which largely explains why it is dominated by general studies and is weak in technical and vocational education.

We are told that connections with industry and business are growing in both the universities and in the TEIs and we were impressed by the evidently strong connection between some engineering departments and industrial and governmental sponsors who use them for testing and development services. Projects financed by the European Union encourage connections and some part-time teachers in

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universities are recruited from industry. Universities and TEI based consultancies are also increasing in number.

But in general the teaching and research agendas are not well matched to the pattern of the Greek economy which depends largely on small, often family owned forms. The overwhelming dependence on public sector for employment remains a key feature. In order to exploit these small firm characteristics of the economy, studies related to high technology industries, marketing and the sophisticated development of tourism would be obvious candidates, but these are not conspicuously present in existing provision. Nor would a text book, teacher-dependent form of higher education equip graduates with generic entrepreneurial qualities. These would be associated with patterns of learning which encourage innovation, critical questioning of existing knowledge, and the ability to produce work based on continuous application.

Institutions could consider how to improve their offerings in terms of potential developments in the economy, and this could be assisted if employers were brought in an advisory capacity. Lay representation is conspicuously lacking in university and TEI governance.

STAFF DEVELOPMENT

In most advanced systems there have been major steps forward achieved through the creation of staff development resources in institutions.

In Greece the tasks would be formidable. The creation of committed and expert teaching force would require deep analysis of the deficits in existing curricula and teaching methods, in the patterns and practices of assessment and in the expectations placed on students. It would be aimed at weaning teaching from its dependence on set texts, helping teachers to make curriculum more responsive to employment needs beyond traditional outlets and to encourage creativity.

It would be necessary to begin by providing a central staff development capacity which could act as an advisory resource to the institutions.

The extent to which staff development is taken seriously would be an aspect of performance to be judged in evaluation of a department and institution.

EVALUATION

Evaluation has taken hold of most systems of higher education and if worked out and carried through with care could help Greek higher education tackle many of the problems which face it.

Evaluation serves multiple purposes and it is important to determine its aims before it is installed. It can be used to reinforce accountability to the institution or to client groups and thus take on a judgmental and summative form. In this form it

is likely to lead to proposals for action. It might also be used as the basis for allocations of resources.

It can also be used for self-critique and development. In that case it is likely to be formative in style and to lead to those being evaluated determining what actions they themselves should take.

In our view both types of evaluation, that related to accountability and that related to self-improvement, are seriously needed in Greek higher education.

There are also choices to be made on the techniques to be used in evaluation. For most purposes open ended peer review is appropriate, as long as the criteria being used are explicit, and the selection of the "peers" is carefully made. Some limited use of performance indicators for research and teaching could be made, but as "can openers and not dials". For some purposes, self-evaluation is the appropriate starting point and can be used as the basis of external review as well as of self-development.

Evaluation of teaching

Evaluation of teaching should include:

- scrutiny of the curricula adopted for each subject area. The scrutiny should respect freedom of interpretation, and wholly concern the quality of structure and materials employed, and the methods used for teaching and learning it;
- scrutiny of assessment procedures;
- some limited visitations of peers to classes;
- student assessment of teaching;
- external client assessment (*e.g.* by key employers).

A separate issue is the external moderation of all assessments leading to the award of degrees. This is desirable in all systems, but essential in the Greek circumstances of lack of trust described above.

Evaluation of research

Evaluation of research is less difficult than that of teaching because, in principle, its results are open to outside scrutiny. We urge the need to ensure that evaluation is directed to the promotion of good work related to the needs of Greece for a strong scientific base which will advance theory and improve practice rather than to punish poor or non-performance and to reward existing excellences. It is too easy for evaluation to have a purgative rather than a developmental role although obviously it can assist in the identification, for appropriate remedy, of persistently poor or non-performance.

Evaluation should be undertaken by peer groups of established academic reputations, and should be based on assessment of published work. Assessments should also take account of future potential so that newly emerging groups or individuals are noted.

Evaluation of research should be taken into account when resources are allocated but the temptation to simply reward the best should be avoided. The objective of research funding should be to put money where it can do most good and that might include the nourishment of promising but emerging centres or individuals or even in the rescue of poor research in areas where development is desirable.

An expert evaluation centre for higher education should be established, free of the Ministry, and charged with the duty of giving advice on evaluative methods and with monitoring the efficacy and equity of evaluation arrangements throughout the system. Other countries have employed external experts to make surveys of both teaching and research quality.

It seems desirable that evaluation reports of both teaching and research should be published. This will help restore credibility to a system which at present seems to have lost the confidence of many of the clients who are constrained to use it.

CONCLUSIONS AND PROPOSALS

We came away from our discussions in many universities and TEIs and with those conversant with Greek higher education with a sense of disappointment that a country so committed to higher education was so burdened with a system that could not begin to deliver what the country needed. So many of its pathologies seem to be embedded in the political culture of the country. We felt, however, that the volume of discontent was sufficiently strong for it to be worth while to attempt radical changes that should eventually win universal political and professional support.

We therefore make far-reaching recommendations which, at the risk of appearing repetitive, we think it would be useful to summarise as follows:

- The provision for higher education should be based on an appraisal of the present and future needs of the economy and of the extent to which they are being met by existing provision. Planning should be directed to meeting the needs of the whole economy and be aimed at reducing the high proportion of graduates eventually employed in public sector.
- Universities and TEIs should be expected to create an institutional plan that goes forward to reasonable time horizons, that judges the type of courses that should be provided in order to meet students' needs and the needs of the economy and society, that estimates the kind of staff, physical plant and equipment that is needed, and negotiates on that basis with the govern-

ment. The controls on expenditure should rely on agreements reached on objectives and on ensuring that spending is related to them.

- Universities lack the ability to know or to control their annual intakes of students and to allocate funding or to recruit teaching staff in relation to specific institutional needs. Greek universities need the power to make such decisions in the context of a clearly defined national framework. The number of admissions each year should be determined in consultation between Ministry and universities rather than unilaterally by the Ministry, and should be related to the agreed capacities of institutions.
- The problem of "inactive students" should be addressed in view of the knock-on effects their continued registration have on the numbers of new students admitted each year on institutional budgeting, and on the underlying commitment to higher education as a serious pursuit. Steps should be taken to establish reliable figures of students attending higher education.
- Higher education staff should include a majority of teachers with a full-time commitment to their students and to research and other scholarly activities. Professors' average teaching duties could be increased to more than the present 3-5 hours a week. A full-time commitment in return for adequate pay should become the norm. This would require them to be paid adequate salaries. A charter stating the duties, obligations and conditions of work for both teachers and students should be directed towards the creation of full professionalism which is definably concerned with advancing the welfare of students and their education rather than responding to political or patronal pressures.
- The raising of institutional income additional to those allowed from national funds should be encouraged. This might come from local taxation in those areas where there is an unsatisfied demand for more places. Institutions should be encouraged to raise more money from private sources. Additional income might come from: the marketing of fee-paying courses for various target groups – the levying of tuition fees from "native" students, and possibly for certain forms of post-graduate studies, consultancy fees for industry, etc. – in general, encouraging universities to develop more entrepreneurial spirit than they show at present.
- The authorisation of certain forms of properly accredited private institutions would expand provision at a time when demand is unsatisfied, enable more students to study in Greece rather than abroad, and provide some much needed competition for the public system.
- Reforms are essential in the content and style of university curriculum. Teaching methods should be directed towards developing innovation and independent thought. Higher education should not only provide students

and teachers with a better educational experience but also enhance economic diversity and performance. Specifically, the following matters are in need of wholesale reform:

- the revision of entrance examination curricula and procedures so as to remove the dead weights of memorisation and often outdated syllabuses in favour of examinations which test individual judgement and critical ability;
- redressing the balance between general and applied/vocational education in favour of the latter;
- discouraging the dependence on set text books by replacing free set text books by the adequate funding of libraries;
- a thorough review of the systems of feedback to and assessment of students which is at present largely unrigorous and encourages memorisation. Assessment procedures should be subject to external moderation to decrease pressures from students and other interested groups regarding the content and style of teaching and modes and standards of assessment and to enhance the quality of teaching;
- some power to relieve the universities of unwilling or incompetent students is necessary, perhaps by assessment of total progress at the end of the second year;
- students should be given greater freedom to pursue the subjects of their own choice within degree courses and the practice of filling courses with students who have not opted for them should cease. It is essential that students become committed to their studies and not regard them simply as a meal ticket.

– The declared autonomy of universities needs to be made a reality. The present central controls over finance should be replaced by the delegation of lump sum budgets based upon negotiation about student intakes and other commitments, and handed over in good time in each financial period for effective institutional planning to be possible. Institutions should be able to appoint their own staff, without reference to the Ministry within an agreed staffing budget. At the same time they should be subject to effective audit systems and transparent appointments and contracting procedures of the kind which universities in other countries have found it possible to work within, without restriction on their freedom.

– External groups, particularly employers, should be brought into institutional governance at least in an advisory capacity.

– As institutions acquire autonomy they will need to install more effective management and planning systems. These are likely to lead to an increase in

authority of rectorates at the expense of senates, and the restructuring will require careful analysis and negotiation.

- A review of existing doctoral and other advanced training should be coupled with an examination of existing research activities in universities and TEIs. This should be a preliminary to consideration of a plan for graduate education which should take account of the future staffing needs of higher education and industry and business.
- Individual TEI courses should be able to lead to first level degrees if they display the requisite quality on rigorous accreditation of their courses. Salaries should be related to individual qualifications and teaching and research levels, and not be automatically raised to those of university teachers.
- Greek higher education needs a committed and expert teaching force. Resources should be devoted to staff development at both the institutional and individual teaching level. There should be a central staff development capacity which could act as an advisory resource to the institutions.
- It will greatly enhance the quality and standing of Greek higher education if a thorough system of evaluation of both teaching and research is established. This should aim at both self-improvement through self-evaluation and demonstrated public accountability through objective peer assessment. If installed together with more rigorous student assessment the lack of trust which at present pervades the system could be dispelled. An expert evaluation centre for higher education should be established, free of the Ministry, and charged with the duty of giving advice on evaluative methods and with monitoring the efficacy and equity of evaluation arrangements throughout the system.

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EDUCATIONAL POLICY-MAKING, ADMINISTRATION AND MANAGEMENT

At the heart of many of the problems that we have discussed in previous sections of our report lies the highly centralised, highly bureaucratised politico-administrative system within which education operates. Overall, it makes of education a *closed* system, not easily amenable to change and innovation.

At present, central policy making depends on the sanction of laws giving rise to administrative practices ill adapted to the creation of a dynamic and responsive educational system, the fast changing polices of the parties in power, let alone the changing economic and social environment caused by technological change and Greece's appartenance of the European Union. It is too often assumed that the passage of a law guarantees the setting into place of a policy. We state later the case for an exigent analysis of which powers are necessary at the centre and which can be discarded. Such an analysis would have to start from consideration of what are the proper functions of the national authorities in education, and work its way through all of the contingent components. The objectives of the whole enterprise need to be kept under constant review and the edifice of law, institutional structures and allocations related to them.

It is generally agreed that the existing arrangements do not allow the Ministry to act as a rational decision-maker. It needs adequate planning staff, equitable and predictable procedures to be put in place and a resolution to make its policies appropriate, equitable and transparent. We elaborate further on what is required to cause change, with decentralisation (or deconcentration, as some prefer to call it) as the point of departure.

DECENTRALISATION

Greece has begun to move towards decentralisation through the introduction of election of prefects, the delegation to them of funds and functions in respect of school building, the delegation of school maintenance and the capacity to provide for certain educational and cultural services to the municipalities, the creation of district education committees at which the two levels are represented, and the

creation of school committees. The universities have also been given legal right to autonomy.

Although these arrangements are incomplete and only just coming into place they already display logical and operational defects. There is a lack of clear definitions of the rights and responsibilities of the different levels and such an exercise should be undertaken, to include all of the component parts, from the Ministry to the individual teacher, student and parent. The criteria for decentralisation would be whether schools, universities and other institutions are able to make full use of professional judgement and to decide on the use of funds in response to locally defined needs and means, and whether clients have a say in the quality and content of what is provided. This criterion of local control and participation needs to operate within the principle of elective public control and planning so that a local authority can ensure equity and the effective use of resources at the working level. The school should thus have the maximum of freedom within the framework set by the local authority. (At present schools cannot hire a cleaner without permission, though higher education institutions are better off in certain respects.)

There is, in fact, a reconcentration of power rather than decentralisation. The curriculum remains a central prescription, and teachers have no margin for creative interpretation or development but remain dependent on the centrally prescribed texts.

Nor is there a rational pattern of the local government of education. It is against organisational logic to divide capital provision by the regions from the maintenance of physical facilities and to divorce these again from decisions on the nature of school activities by the Ministry. This division explains why school buildings are regarded as collections of instructional spaces rather than buildings designed to meet educational needs and concepts. They have the unloved appearance of buildings that nobody owns.

Local school management

We believe that the Ministry should attempt experiments in local school management. Several patterns are possible. The maximum adopted in other countries provides for a school committee consisting of elected parents, teachers, representatives of the local authority and the head teacher. This committee appoints teachers, subject to safeguards on qualification and open advertisement. It has discretion to spend on maintenance and equipment, subject to audit, and to follow the national curriculum but within substantial margins of freedom to develop content and style. The intention is to cause a sharing of power by the provider and the recipient of the service. A possible example which we have heard discussed is to allow parents a certain amount of resources with which they can purchase the nursery education of their choice.

Functions of local government

In such a pattern, school committees should work within the frameworks set by local authorities, and the national law of education, but the power over education should rest at one level of local government only. In such an arrangement, the powers of a local authority might be to:

- determine the educational needs of its area, and appropriate resources to meet them in the form of teacher and other salaries, buildings and their maintenance, advice and in-service training for schools;
- ensure that children with special needs receive appropriate education;
- make links between education and other services such as health and social work;
- arrange for the evaluation, both external and self-evaluation, of schools.

University autonomy

As far as the universities are concerned the need of their being given a larger degree of effective autonomy is evident from the analysis of their problems which we presented in Chapter 3. Their legal personalities should be strengthened to allow them to receive, on a largely student number based formula, a global budget. This should be based on numbers openly planned in terms of a more rational system of the assessment of national needs and according to resources available. Universities should not be asked to take large increases in student numbers without due preparation and resources. They should be free to determine their own academic staffing patterns, within transparent and negotiated national planning frames which could ensure that they meet declared national needs, whilst fully exercising their function of creating and disseminating new knowledge and of providing testing and critique of existing knowledge form. They should be encouraged to develop income generating activities as long as they are within the definable boundaries of higher education's functions. There should be a bonfire of unnecessary controls by the centre. They are widely regarded as being devoid of purpose.

At the same time, the universities should be open to full evaluation. We have been told that teacher commitment is variable, and that second jobs are frequently held. The academic habits of single texts and weak student assessment cannot be wholly blamed on the central Ministry. Full autonomy will remove alibis as well as impediments to good work.

In sum, then, true decentralisation would create wholly different political settings. They would broaden the base of active policy making, and make people more responsible for their own professional behaviour. But it would be necessary to guard against clientism and patronage so that teacher appointments would be subject to agreed qualifications, procedures for open advertisement of posts, and

the ultimate power of veto for good cause by the Minister or his agent. Similarly, universities would appoint their own professors, but subject to rigorous national procedures of advertisement and on transparent academic selection procedures. In all this, evaluation would play an important place.

These specifics of decentralisation will not be effective unless there are corresponding changes at the centre. Indeed, no change should be made unless its effects on contingent parts of the system are taken into account. On the basis of the analysis of existing central controls and of what is needed and not needed, there could be delegation of resources and decisions to basic institutions, subject to public account of expenditure objectives, and audit.

EVALUATION

The release of central powers to the working levels will be paralleled by the partial replacement of legal-prescriptive controls, by informative/normative influences, including those generated by evaluation. There would be a trade-off in which evaluation would guarantee standards and good practice in institutions which are released from unnecessary central control and regulation. Evaluation at all levels and phases of the system, including the central ministries, would enable accountability to be secured, funds to be allocated rationally and equitably, and the working groups to develop their own self-critique and improvement. These guarantees of quality based on evaluation of process and outcomes would be secured mainly by systematic and public peer review, possibly moderated where appropriate, by foreign experts as is already the case in many other countries.

We have dealt, in Chapters 2 and 3 respectively, with the detailed applications of evaluation at the school level, including pupil assessment and examinations, and at the level of tertiary education. Broadly speaking, the system should provide for self-evaluation which can serve as a basis for summative evaluation, externally moderated, or for self-improvement. It is important that the results of evaluation should be made public for the emulation effect that they can have; but we do not believe that they should form the basis for resource allocation, except where evaluation draws attention to a case for special additions to or reductions of resources.

Evaluation systems of the kind outlined above are by now well developed in a large number of OECD countries, and to which the OECD itself has devoted considerable attention. We believe that Greece could well draw on this available corpus of international experience and technical expertise, adjusted to its own needs. Our own proposal would be that, as an initial step, a Centre for Educational Evaluation should be created to advise on techniques. Working closely with, but independently of, the Ministry, it could eventually evolve into a national agency for monitoring evaluation, in ways which ensure that evaluation will not be used for clientage purposes.

CHANGES AT THE NATIONAL LEVEL

Decentralisation and deregulation do not mean that the system can do without authoritative decision-making. Greek education needs effective central guidance: frame policies must be determined nationally, if education is to be consistent with economic and social policies. And it is only within such frame policies that choices proper to local and institutional needs can best be made.

But it must also be recognised that changes in the role of central government, particularly the Ministry of Education, are also needed. It is widely regarded as arbitrary, prescriptive and opaque in its working, and devoid of rational and transparent planning procedures. Both its functions and its functioning need exigent analysis and reform.

The criticisms lodged against the centre, *i.e.* the Ministry of Education, include:

- Lack of connection between the policies and working of different central agencies. A glaring example is the absence of dialogue, let alone co-ordination, between the extensive training activities of the Manpower Employment Organisation and those of the Ministry of Education.
- The Ministries of Finance, Economic Administration, Interior and Education are each involved in different financial elements which flow through regions and municipalities in a disconnected way.
- There is no rational planning to link resource levels and distributions to an assessment of economic need or social demand.
- Institutions are tied up by pettifogging bureaucratic procedures.
- The system is subservient to archaic constitutional prescriptions, upheld by the courts which enforce the power of the state against the rights of individuals or the judgements of professionals.

Even allowing for exaggeration and for the use of central defects as an alibi for some inaction at the working levels, a thorough analysis of the role and functioning of the centre is called for. The critics do not call for a weakening of the Ministry but for its transformation into a central authority that acts reflectively on national needs and leads the system into creative educational policies and practices. Its present functions must be as tedious to perform as they are obstructive to those in the field. Senior officials spend their time on routine, bureaucratic chores rather than on contributing to the formulation of policy. Many of them feel totally frustrated.

Government has administrative and controlling functions which it cannot avoid but should also have planning, negotiative and supportive functions. It must operate through many different kinds of mechanisms – laws, financial allocations, policy determinations and persuasion.

Activities can be steered by planning in terms of general goals. The Ministry's aim should be to steer local authorities and higher education institutions through

annual negotiations in which all sides commit themselves to the principles laid down in the national development planning set by the Government. In using negotiation on policies and targets the Ministry would be able to listen to the needs and receive the critique of its policies from the institutions upon which so much of Greece's future depends.

The Ministry is responsible for the strategic steering of the system. For this, it needs a Programme and Planning staff which could analyse needs and set in motion a full planning process. It could diversify its modes of operation in several ways. It could give the National Council for Education, at present a rather moribund body and at best a talking shop, a full part in planning and policy direction, and the staff to achieve it. It could use a separate and independent body to advise institutions on evaluative methods, as already proposed. It could encourage policy analysis by outside institutes. It could build up a comprehensive research programme drawing on the potential of university and other research centres. It should greatly strengthen its data bases, indispensable to building up its analytical capacity. In these ways the Ministry would be strengthening both its policy/planning and its enabling role.

Such relationships will best be tested and improved through a process of mutual learning and adjustment. The resulting functions would be:

- assessing the needs of the economy and of society for different forms of education;
- making judgements on the resources and institutional structures needed to meet the needs;
- negotiating with the political and other interests on a rational plan for the adoption of appropriate policies. A well staffed and fully mandated National Council for Education could play a vital role in this;
- distributing resources so as to best achieve policies based on needs analysis;
- supporting research and experimentation in areas where change may be needed, and ensuring that the system is rigorously evaluated to secure accountability and innovation.

A STRATEGY FOR CHANGE

Change is never easy to achieve systematically because "inertia is the greatest force in the world"; and inertia is a particular quality of all educational systems. But the time is right for change in Greece. Nobody we have met is less than certain about its necessity.

The *components* of a change strategy include: the creation of a psychological and cultural climate for it; identifying new aims and objectives; changing structures and procedures, including those entrenched in law, and the power structures that depend on them; redistributing resources towards the new aims; and attending to the demands set up by different interests through political and other channels. Making change in one of these ways usually requires change in at least one other mode. Judgements have to be made about whether such changes are to be made incrementally or whether a show of determination through large scale changes must be made. But they must be made deliberately, not require teachers and institutions to abandon work already started as the result of previous reforms, and if possible should be undertaken so as to ensure that there are as few losers as possible. Even if everything cannot be done at once, having a complete game plan from the beginning is essential.

We believe that such a strategy for change is now required in order to shake Greek education out of its entrenched inertia. It would involve:

- setting up expert and well mandated task forces to analyse key problems and potential solutions, as perhaps contained in the examiners' report;
- agreement on the analyses with main parties and interests;
- establishment of experimental schemes of full devolution of decision making to the operational base;
- long term movement towards changing the Constitution where it obstructs needed changes;
- laying claim to new resources, and releasing old resources by eliminating waste on unnecessary regulation and on access to provisions not necessary for educational purposes;

- exploiting private resources by allowing controlled supplementation of public provision for higher education and by mobilising family support for state schools.

The *objectives* to which a change strategy would be devoted, and the outcomes which could be expected, would include:

- A new style democracy and equality promoting individualisation within national and social purposes.
- Release from legal and bureaucratic prescription towards frameworks for control and autonomy based on analyses of functional needs.
- Specific freedoms and responsibilities of teachers and students throughout the system. Perhaps charters incorporating these could be drawn up.
- Growing knowledge about educational outcomes and processes through evaluation. This will also secure both accountability and professional development through feed-back.
- Transparent rationales for resource allocations and other decision making.
- Building up a new professionalism that has responsiveness to client needs as a main objective and operating through increased freedom to innovate by the main actors.
- Research on key educational issues to establish much needed facts and constructive critique. There are no cohort studies enabling key developments to be monitored over time, and provision for them should be made.
- Wider dissemination of and experiment with change. Where possible change should take place through experiment rather than through changes of law.
- Financial reforms to include some charging for higher education, and the recognition and regulation of private higher education which will secure return of some of those studying abroad.

The *instruments* of a strategy for change could include:

- The National Council for Education to be given real tasks of considering plans for and reports on reforms. For these purposes it will need a competent professional staff. At an initial stage, the deliberation of the Council could be fed by the analytical work of the expert task forces suggested above.
- Centres for Evaluation and a reconstructed Pedagogic Institute for curriculum development and development of pupil assessment.
- The specification of functions of a reformed and revitalised Ministry, of local authorities and of the institutions in terms that encourage change and development. Within the Ministry, the Minister should be assisted by a task force which will specify and monitor the reform programme. This should be under political direction but should contain the full range of necessary skills

and not be regarded as a political emphemeral to be changed with every change of minister.

In conclusion, we would like to underline once more the importance of ensuring the active involvement of all parties concerned throughout the various stages of the reform process – in the identification and analysis of needed changes as well as in the designing of policies and measures for their implementation. Such is the magnitude of needed change and such is the range of actors and interests involved, that setting up an effective system of *wide consultation* becomes in fact an essential component of a reform strategy of the kind suggested above.

There have been encouraging signs, since our initial visit to Greece, of progress in this direction. The October 1995 Athens seminar was itself a clear example of the Minister's will to initiate processes for open and wide consultation, as is the revamped status of the National Council of Education approved by parliament. The Minister himself has put forward proposals, emanating from our report, on the reform of the university entrance examination and the abolition of the single textbook system, and these have already been the subject of lively public discussion.

We believe that such discussion should now be put on a more organised and systematic basis, and for this a reference framework would be required. We endorse the idea put forward at the Athens seminar that such a reference framework could take the form of a "White Paper", to be prepared by the Ministry, laying down the main directions for educational reform. Consultations around such a paper would hopefully lead to the political consensus which everyone in Greece would like to see on how the future of Greek education should be shaped.

ISSUES FOR DISCUSSION

The Background Report, prepared by the Greek authorities for the purpose of this review, gives a well documented comprehensive picture of the present state of Greek education and its evolution over time, including an *aperçu* of many of its shortcomings and of the factors behind them. It constitutes essential reading for an understanding of the educational scene in Greece and for any discussion of the predicaments and challenges which confront educational policy thinking and making in the country.

In the Examiners' Report we have endeavoured to present a critical analysis of these problems as they relate to overall policy and as they surface at various levels of the educational system and in the politico-administrative structures within which the system operates. In each area we have identified specific problems calling for remedial action and have put forward a series of concrete proposals/recommendations of what form such action could take. Summaries of these are available within the various chapters of our report and need not be reproduced here. But at least one general conclusion needs to be emphasized, namely *that such is the extent of the reform needed that nothing short of radical change will do if Greek education is to be liberated from the frustrating effects of the many predicaments with which it has been traditionally beset.*

For the purposes of the present discussion, in addition to initial Greek comments on the general conclusion stated above and on the overall diagnosis in the Examiners' Report, four groups of issues have been identified for the interest they carry, not only for Greece but for other countries as well. They are:

- meeting the demand for education, with particular reference to resource and financing issues;
- raising the quality of school education, including an enhanced role for technical and vocational education;
- efficiency and quality of higher education;
- educational policy-making, administration and management.

To facilitate discussion, under each of these areas we list, without being exhaustive, a number of the main considerations and questions which arise.

EDUCATIONAL DEMAND, RESOURCES AND FINANCING

We indicated earlier in the report that the inadequacy of public resources is probably the biggest bottleneck in improving the state of Greek education. Greece is by no means alone among OECD countries in struggling with this problem. But its own situation is aggravated by:

- the comparatively low level of public educational expenditure in relation to GDP (4.2 per cent) and in the share of total public expenditure (7 per cent);
- the enormity of the problems that call for urgent and simultaneous attention, namely:
  - meeting the demand for education, particularly pre-school and higher education;
  - improving the educational infrastructure, in terms of better equipment and maintenance of existing schools and the building of new ones, so as to raise the quality of school life and, in particular, get rid of the shift system within which most schools are now operating;
  - raising the quality of school education, with all that this implies for teacher recruitment and training, curriculum reform, pedagogical materials and school support services, among others.

In the light of the above, at least two questions arise for discussion:

- Recognising that additional resources are needed, where will these be found? If little can be expected from the central budget, in a situation of cutbacks in public expenditure, could extra local funds be raised by the regions or municipalities to meet their own educational needs under the decentralisation measures currently in progress? Seeing that, in spite of the much cherished constitutional right to free public education, Greek families already spend large sums of money, amounting to some 2.3 per cent of GDP, on private education, cramming schools and study abroad, what possibilities exist of channelling part of these funds into improving public education?
- Even if additional resources are forthcoming, it is unlikely that these will be enough to meet all needs. The question of priority setting is thus posed. How will these priorities be established? What scope is there within the public educational budget for the redeployment of existing resources from one sector of education to another, including the pursuit of new policy objectives, such as, for example, working towards a system of lifelong learning on the lines advocated by the Ministers of Education at their recent OECD meeting?

SCHOOL EDUCATION

The many problems confronting school education in Greece are expounded in Chapter 2, as are the specific suggestions we put forward, all directed at improving

the position of schooling and raising its quality. A summary of our conclusions and recommendations was presented earlier in this report and a useful starting point for the present discussion could be an initial Greek reaction to the validity and *practicability* of these proposals.

Noting that *a)* we see no major problem concerning the existing structure of the educational system, except for problems of articulation between various levels and branches; and *b)* questions of resources and infrastructure deficiencies will have been considered under the previous item, it is suggested that the discussion concentrates on specific proposals we have put forward in the following areas:

- *Compulsory schooling*, in particular:
  - better co-ordination between pre-school and primary provision, and between the primary school and the *gymnasium*, including a more purposeful role for the primary school and *gymnasium* certificates;
  - possibilities for curriculum choice in the last two grades of the *gymnasium* and improved provision of guidance to pupils in the choice of upper secondary education.
- *The lyceum*, in particular:
  - a stronger, more autonomous identity of the leaving certificate of the general Lyceum to adequately reflect the full range of curriculum objectives at this level and not merely as a preparatory stage for higher education;
  - abolition of the single textbook system;
  - rigorous promotion of the polyvalent Lyceum.
- *Technical and vocational education*, in particular:
  - measures to enhance its status, such as widening access possibilities to further and higher education, adapting its management structures to better respond to the local economic community, establishing closer links with continuing and on-the-job training;
  - reconsideration of the division of tasks between the technical lycea and the IEKs;
  - a more rational and co-ordinated approach to the distribution of responsibilities between the Ministry of Education, other ministries and the OAED.
- *School curricula*: drastic revision of the instruments and methods for defining their content and for implementing curriculum reform for all school education, including:
  - definition of a core curriculum for all secondary education;
  - better adaptation to local and regional needs and conditions;

- improved methods of assessing pupils' performance with regard to set curriculum objectives;
- redefinition of the role and tasks of the Pedagogical Institute in this area as well as in educational research and other school support services.

– *Teachers:* the central question being how to establish criteria for teaching appointments and promotion based on objective assessment of qualifications and competence rather than exclusively on seniority (see Chapter 2 of the Examiners' Report).

HIGHER EDUCATION

As with the previous item, the conclusions and proposals which arise from our analysis of problems confronting Greek higher education – by far the most politically sensitive issues in any discussion of Greek education – are summarised in the last paragraph of Chapter 3 of the Examiners' Report. Here again, it would be useful to have an initial Greek reaction to the general tenor of our conclusions before embarking on a more detailed discussion of key issues in this area.

The following issues have been identified for this discussion.

– *A more rational planning of higher education intake and related questions of resource allocation.* This would involve, in particular:
  - enabling institutions of higher education to know or to control their annual intake of students and to allocate funding or to recruit teaching staff in relation to specific institutional needs; this to be done in the context of a clearly defined national framework based on an appraisal of the present and future needs of the economy and society;
  - addressing the problem of the large number of "inactive students" for the distorting effect which this has on new admissions and the commitment of higher education as a serious pursuit;
  - encouraging the raising of institutional income, from local taxation or private sources, additional to that allowed from national funds;
  - authorising certain forms of properly accredited *private* institutions in order to meet unsatisfied demand and enable more Greek students to study in Greece rather than abroad.
– Reform *of higher education curricula and teaching methods*, in particular:
  - revision of entrance examination curricula and procedures designed to test individual judgement and critical ability rather than sheer memorisation;

- as with secondary school curricula, abolition of the single textbook system which is at the root of the prevalence of memorisation as the yardstick of student success;
- giving students greater freedom to pursue the subjects of their choice within degree courses and doing away with the practice of filling courses with students who have not opted for them;
- ensuring the full-time commitment of higher education teaching staff to their students, to research, and other scholarly activities in return for adequate pay;
- clarifying the relationships between the quality and status of courses offered at universities and TEIs.

– *Institutional autonomy* and *governance*, in particular:

- replacing the present central control over finance by the delegation of lump sum budgets based upon agreement about student intakes and other commitments: the control on expenditure to rely on agreed objectives and on ensuring that spending is related to them. Thus institutions should be able to appoint their own staff, without reference to the Ministry, within an agreed staffing budget;
- institutions to be subject to effective audit systems and transparent appointments and contracting procedures;
- need for institutions to install more effective management and planning systems, including the possibility of involving external groups, particularly employers, in an advisory capacity.

– *Evaluation:*

- the need for establishing a thorough system of objective evaluation of both teaching and research; and the proposal for setting up an expert Evaluation Centre for Education, free of the Ministry, to advise on and monitor the evaluation arrangements throughout the system.

EDUCATIONAL POLICY-MAKING, ADMINISTRATION AND MANAGEMENT

As we state in the first paragraph of Chapter 4 in our report "at the heart of many of the problems we have discussed (...) lies the highly centralised, highly bureaucratised politico-administrative system within which education operates. Overall, it makes of education a *closed* system, not easily amenable to change and innovation". And we emphasize that releasing policy making from its over-dependence on the sanction of laws and the deadening weight of the administrative practices which these laws give rise to, is an essential condition for infusing dynamism and responsiveness in the educational system.

To this end, we have put forward a coherent set of specific proposals under the headings around which the present discussion could be organised:

- *Decentralisation*, with the accent on:
  - clearer definitions of the rights and responsibilities of the different levels, from the Minister to the individual teacher, student and parent;
  - increased powers for local authorities in determining the educational needs of their area and appropriate resources to meet them;
  - within such a framework, more freedom to the individual school, through school committees, in the management of their affairs;
  - endowing universities with a larger degree of effective autonomy, as already mentioned.
- *Establishing a system of evaluation*, at all levels and phases of the system, so as to guarantee standards and good practice in institutions which are released from unnecessary central control and regulations, and generally provide objective and publicly recognised guarantees of both quality and equitability.
  - as an initial step, the setting up of an independent Centre for Educational Evaluation, as already mentioned, which could eventually evolve into a national agency for monitoring evaluation in ways which ensure that evaluation will not be used for clientage purposes.
- *Changes in central planning and policy making*, in particular:
  - better co-ordination between the Ministry of Education and other ministries and agencies involved in education and training activities, especially the Manpower Employment Organisation;
  - drastic review of the role, functions and organisation of the Ministry of Education to relieve it of its present routine and bureaucratic functions and improve its planning, policy making and steering capacity for the achievement of nationally agreed targets and objectives;
  - the need for an overall strategy for change to guide the future development of education in Greece, with the necessary consultation and consensus-building mechanisms and procedures: a possible new role for the National Council for Education in this process.

Annex

RECENT REFORM MEASURES

Subsequent to the completion of our report, a number of measures and proposals have been initiated by the Greek authorities on issues relevant to our analysis and recommendations. This annex sets out the main items covered by these recent developments.

REVISION OF THE CONSTITUTION

Within the parliamentary procedure for the revision of the Constitution, the Ministry of Education has proposed *the Amendment of Article 16* on education. According to the Minister's statement, the aims of this proposal are, among others, to:

- preserve the public character of tertiary education;
- liberate public education by diminishing bureaucracy, thus encouraging flexibility and adaptation;
- decentralise and devolve responsibility to local and institutional levels;
- provide for an evaluation system;
- provide a more composite system in determining professional rights and capabilities so that these correspond more directly to market needs;
- support inter-institutional programmes of study;
- meet the demand for education by allowing other public bodies to supply such education;
- facilitate the raising of funds and the search for new financial resources.

OVERALL POLICY MAKING

In order to ensure better continuity and greater political stability in the overall policy for the evolution of the national education system, the Ministry has legislated for the creation of a *Council of Education* with representatives from all

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political parties. So far, the response of the opposition parties has not been particularly encouraging, but there are signs of a growing consensus on this issue.

A *National Education Council* has been established by law. It is composed of representatives from a great variety of academic, social and professional agencies and will concern itself with issues related to the strategic planning, quality management and control of all levels of education. The president of the Council has already been nominated and approved by Parliament and procedures for the first meeting of the Council in Autumn 1996 are under way.

ISSUES IN EDUCATIONAL FINANCE

Procedures for the setting up of a *National Education Fund* of Dr. 200 billion in the first instance have been initiated. The fund will be used to support the needs of tertiary level institutions.

A sum of Dr. 350 billion has been set aside to fund the 1996 part of a strategic programme of school buildings in order to overcome the problem of double-shift schools in ten of the largest urban areas of the country.

Retraining and in-service training of teachers has been intensified and a sum of Dr. 10 billion has been allocated for this purpose for 1996.

EDUCATIONAL REFORM MEASURES

A radical change in the philosophy of the Greek Education system is expressed by the introduction, as of September 1996 (with effect from June 1999) of a programme leading to the establishment of a *National Lyceum Leaving Certificate*. It replaces two existing examinations: school-leaving and entrance into tertiary level institutions. The programme will be offered to students of all types of Lycea (General, Technical, Comprehensive, etc.) and combines "common core" subjects with academic and/or vocational electives.

The Certificate will be awarded following an externally set and graded national examination. It will certify the attainment of a high standard of general knowledge and – depending on the electives taken – it will also serve as the sole criterion for entrance into tertiary level institutions or as proof of skills required for the labour market.

The new scheme, which will be linked to a new system of student evaluation, aims at upgrading the role of secondary education, strengthening general education of all students attending upper secondary schools and reinforcing students' learning skills across the board.

At the same time, the *International Baccalaureate* has been recognised by law as equal with and equivalent to the Greek Lyceum Leaving Certificate. Both state and private schools are now allowed to offer the IB programme, which will be of

particular value to students with a multicultural background and to those aiming at inter- or cross-national careers.

In relation to the above initiatives, it should be noted that the Ministry of Education has put forward proposals for the abolition of the single textbook system which has prevailed in the Lyceum and Higher Education Institutions, to be replaced by a book-allowance for all students and enrichment of university libraries. These proposals are the subject of intensive public debate.

EDUCATIONAL SUPPORT MEASURES

A *Centre for Educational Research* has been established and its president has been nominated and approved by Parliament. The Centre has, as its aim, to build up a strategic plan of educational research and take initiatives for its implementation directed at promoting knowledge in this area and facilitating the evaluation of the school system.

The *Pedagogical Institute* is being reorganised in order to be in a position to respond to the needs created by the initiatives taken by the Ministry. One of the major changes within the Institute's responsibilities will be the introduction of market competition for text-book writing and production. It is expected that this will improve quality and will eventually replace the "unique textbook" system as indicated above.

The *Hellenic Open University* has been established by law and is scheduled to start operation during the academic year 1996-97. In order to meet the educational and cultural needs of growing numbers of immigrants from neighbouring countries and returning Greek expatriates, a *Special Secretariat for Intercultural Education* has been established by the Ministry and is already operational.

As part of the drive to decentralise the system and encourage distance learning, *Education Support Centres* are being set up at local level. In addition, these Centres will encourage local cultural activities and serve the needs of School Counsellors by providing them with the necessary facilities and sources of information (libraries, and computer links, etc.).

PLANNING GROUPS

A number of committees and working groups have been set up within the Ministry of Education to elaborate action plans in a number of major issues, of which the following are worth noting:

- the selection, appointment, evaluation and promotion of the teaching staff;
- the establishment of an International Centre for Educational Management;
- further development of all non-university higher education institutions;

- improving the links between the education system and the labour market;
- the increase of university student places to meet the growing social demand for such education and reduce, *inter alia*, the number of Greek students now studying abroad.

LIST OF ABBREVIATIONS

AEI	University establishments, universities and polytechnic schools
DESMI	Academic streams
DIKATSA	Centre for the Recognition of Foreign Academic Degrees
DIPEE	Directorate of Planning and Operational Research
EAGE	National Academy of Letters and Sciences
EES	Centres of Liberal Studies
EIN	National Foundation of Youth
EOT	National Tourism Organisation
EPL	Integrated Lyceum
ESEEK	National System for Vocational Education and Training
ESYE	National Statistical Service
ESYP	National Education Council
GEL	General Lyceum
GGLE	General Secretariat for Adult Education
IDEKE	Institute for Continuing Education
IEK	Institutes of Vocational Training
IKY	State Scholarship Foundation
ITE	Institute of Technological Education
KATEE	Technological Education Institutes
KEGE	Central Committee for the General Exams
KEPE	Centre for Social Studies
KYSDE	Central Council for Secondary Education
KYSPE	Central Council for Primary Education
NELE	Regional Committees for Adult Education
NKSE	Prefecture Centres for the Support of Education
OAED	Manpower Employment Organisation
OEDB	Organisation for Publication of School Textbooks

OEEK	Organisation of Vocational Education and Training
OSK	Organisation for School Buildings
OTA	Organisation of Local Authorities
PATES	College of Technical Education
PEK	Regional Education Centres for the Training of Teachers
PI	Pedagogical Institute
PIEKA	Experimental Institute of Vocational Training and Employment
SAP	Council for University Education
SEB	Industrial Union on the Qualification Needs of the Industry
SEP	School-vocational Orientation Programme
SEK	School Laboratory Centre
STE	Council for Technological Education
TEI	Technological Education Institutions
TEL	Technical-Vocational Lyceum
TES	Technical-Vocational School
TSE	Tripartite Advisory Committees

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