

DOCUMENT RESUME

ED 071 619

HE 003 758

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TITLE The Global Quest for Educational Opportunity.
INSTITUTION California Univ., Berkeley. Center for Research and
Development in Higher Education.
BUREAU NO BR-5-0248
PUB DATE 72
NOTE 96p.
EDRS PRICE MF-\$0.65 HC-\$3.29
DESCRIPTORS *Educational Equality; *Educational Opportunities;
*Higher Education; *International Education;
Nondiscriminatory Education; *Universal Education

ABSTRACT

There is presently an international trend toward egalitarianism in postsecondary education. It is not known where the trend started, but all over the world a new receptivity to the extension of educational opportunity has gained a sturdy foothold among educators and public officials. This document reviews the current trend toward education for the masses, and the quest for egalitarian education in Europe, the British Commonwealth, Chile, Asia and the Pacific. Certain issues and problems involved in providing mass education are discussed with the idea of solving the problem. (HS)

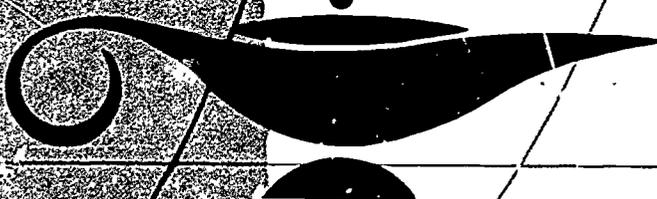
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The Global Quest for Educational Opportunity

LELAND L. MEDSKER

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*The
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for Educational
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LELAND L. MEDSKER



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1



Introduction: New Openings in Postsecondary Education

Nobody quite knows how or where it all started, but the international trend toward egalitarianism in postsecondary education is evident to all who make even the most casual inquiry into educational developments around the world. Wherever one looks, be it Canada or Japan, Thailand or New Zealand, a new receptivity to the extension of educational opportunity has gained a sturdy foothold among educators and public officials. New college systems, technical institutes, external degree programs, media instruction, and other approaches designed to reach students hitherto denied access to education and training beyond the secondary school have introduced a modern kaleidoscopic variety into the traditionally staid portrait of advanced university education throughout the world.

Undoubtedly many would say the trend began in the United States, and certainly higher education in this country has come a long way since the days when it was thought of solely as a preparatory process for the select professions of law, medicine, and theology. The advent of the land-grant colleges and the open-door public junior colleges did much to hasten the democratization process. Since the end of World War II, the growing concern for the rights of

individuals has gone far in removing barriers of race and class at all levels of the educational system, even though much still remains to be done.

Most recently in the United States there has been a great surge of interest in making the American system more open, more flexible, and more available. An overriding concern of innumerable professional inquiries over the last decade has been the problem of improving access to postsecondary education for an ever-growing number of persons who had previously not been considered in the pool of potential students. More recently these inquiries have concentrated on how these "new" students are to be served once they are admitted to some type of postsecondary institution or program. These policy studies have stressed that the concept of access demands that appropriately designed programs and teaching be provided as well as educational institutions themselves made more easily available.

After these studies there came a series of new emphases. The federal government began to press for "career education." The Carnegie Commission on Higher Education (1971), in advocating "less time and more options," placed a new stress on enhancing opportunity through flexibility. Finally came the current stress on "non-traditional education" and the move toward extending postsecondary education through offering new options in time, place, and means. In fact, alternatives in ways and means of postsecondary education have now come to occupy the time and attention of most decisionmakers throughout the country.

The situation in other countries has traditionally been characterized either by a selection process for college preparation at the upper secondary level or by a rigid entrance examination system, or both. Until recently, in most countries entrance into the university or a limited number of other higher institutions was relatively easy for those who qualified. Not until very recently has the concept of "qualification" been thoroughly reevaluated. The policy changes outside the United States appear to have come more slowly, but the

tempo of change is now quickening.

This monograph constitutes a necessarily limited attempt to summarize certain features of postsecondary education that have promoted an increase in educational opportunity in a number of countries outside the United States. As one involved at home with the examination of various means to extend opportunity, it seemed appropriate to look at least briefly (and regrettably partially) at the programs other countries are initiating and the problems they are facing in this field of concern. Opportunity to do so was provided by a sabbatical leave granted by the University of California and by a travel grant from the Ford Foundation. I am deeply indebted to these two organizations and to the many individuals and agencies, including the Asia Foundation and the Organization for Economic Co-Operation and Development, who were so helpful in my studies abroad.

The information reported here was assembled from various sources, including a personal investigation in several countries in the Orient, Southeast Asia, and the South Pacific during the fall of 1971. Information on certain developments in Europe stems from a close association with the Paris-based Organization for Economic Co-Operation and Development which resulted in my attendance at two meetings in France in 1971 and in an opportunity to examine numerous documents assembled by OECD. The material on Chile grows out of ten years of personal participation in a project, supported by the Ford Foundation, involving cooperation between the University of California and the University of Chile in the development of a regional college system in that country. Personal contacts in various other countries also facilitated the gathering of information.

It is a matter of considerable regret that limited time and funds prevented visits to a number of countries beyond those discussed in these pages. It is especially sad that it proved impossible to give adequate attention to the nations of Africa. I am persuaded, however, that the developments reported here are indicative and

representative of the direction that policy in postsecondary education is taking throughout the world, and that the review and analysis provided here will be helpful to those readers whose own special national area of concern is not taken up in this work.

Any discussion of educational opportunity necessitates a perception of what the term means or at least implies. Since the concept is much too broad to be circumscribed by any formal definition, a better approach is to identify the various elements which seem to constitute educational opportunity in today's society. As stated above, the trend in the United States is to extend the meaning far beyond mere availability of institutional settings to include diversity in programs, teaching methods, and time. The Carnegie Commission on Higher Education (1971) has suggested that young people should also be given more options—to pursue some form of education in lieu of formal college, to defer college attendance, to stop out from college in order to get service and work experience, and to change directions while in college. The commission also stressed the vital importance of offering opportunities for higher education and a degree to persons throughout their lifetimes and not just immediately after high school. Hartnett (1972), in writing for the National Commission on Non-Traditional Study has said:

There are pathways to knowledge other than the traditionally accepted four years of credit accumulation pursued by young people between the ages of 17 and 23 who devote essentially full time to formal classroom study. The challenge to higher education today is that of providing increased options and new educational opportunities to millions of people [p. 13].

In its Draft Report, the Commission on Postsecondary Education in Ontario (1972) specifies the aims and objectives of postsecondary education as including universal accessibility, openness, diversity, and flexibility. The report states:

We . . . stress the encouragement of lifelong education, part-time school attendance, and new ways of delivering educational services. We have adopted the principle that all educational services should be more and more open to the public, and, indeed, integrated within the cultural and educational activities of the community. We . . . offer recommendations that would safeguard the present diversity and introduce additional forms of educational services and alternatives. We must have a postsecondary educational system which is sufficiently responsive to new social demands yet is prepared to abandon those that we no longer deemed necessary [p. 13-14].

Further implications for the concept of opportunity are found in the OECD report (1971), which emphasizes the current lack of diversification and excessive rigidity in higher education. The report also stresses that present systems are not adapted to the emerging value structure of the new student generation, that new functions such as continuing education must become an integrated part of the goal structure of higher education, and that there must be a closer relationship between education and employment than now exists.

In her study of higher education in nine countries, Burn (1971) points to the impact of rising secondary school enrollments on new demands for higher education in the eight industrial countries included in the study and indicates the new questions they pose:

In all eight countries what may be called the "massification" of higher education has prompted reconsideration of what the functions of higher education should be. Who should have access? What should they study? Who should decide? Taxpayers, governments, and employers of graduates expect higher education institutions to produce highly trained people needed by the economy, and they call for relevance to social need. Students demand that higher education be utilitarian not in terms of the world they see but in terms of the world they seek [p. 8].

Thus, behind the worldwide move to expand educational opportunity lie perplexing questions that are as significant in other countries as in the United States.

It is apparent that educational opportunity is a multi-faceted concept. It applies to the range of options available to individuals at any stage in their lives as well as to the total arrangements of a nation's educational system. In examining the developments in other countries which reflect growing opportunity at the postsecondary level, it was decided to concentrate on two major lines of inquiry: 1) To what extent has there been a change in basic education philosophy with respect to the goal of expanding educational opportunity and 2) To what extent are these philosophical changes being implemented by new institutions or programs that accommodate a greater diversity of students or meet emerging social and manpower needs in the various countries. Because it was not possible in the limited time available for the study to examine all aspects of the postsecondary system in the various countries, no attempt is made here to describe in detail the functioning of university or other segments of the various systems, except to the extent that such descriptions have a bearing on the problem of expanding opportunity.

The international reforms reported in this monograph have intrinsic interest, revealing as they do how widely varying countries and cultures cope with similar pressures to open up the system and extend the range of training and opportunity in postsecondary education. For the American educator these developments take on an added measure of importance in that they place in perspective some of the trends in the United States. It is one thing to be aware of the new avenues at home for education beyond the high school—perhaps sometimes even to wonder whether they are in the best interest of the country or whether better ways might be found to educate masses—and quite another to realize that both our achievements and our misgivings form part of a worldwide phenomenon. Moreover, it is important that people in the

United States become aware of variations in methods to achieve similar goals and of the problems and issues faced by other countries as they seek many of the same benefits for which we search. At the very least, there should be no illusion that we are "going it alone," or that by widening the doorway to higher education, we are being more noble in our aims than other countries.

2

The Quest in Europe



In continental Europe, where education beyond the secondary school has long been held as a privilege for the elite, forces are now at work to make it more egalitarian. The great pressure of numbers alone is exerting an influence on the direction of education. As the desire for advanced education becomes increasingly universal, a higher percentage of the college-age group becomes potential enrollees. Although in most of the countries in continental Europe this percentage is still much lower than in the United States, the world climate of increasing expectations makes the future demand for postsecondary education hardly less than spectacular. With the correlative movement toward universalization of both primary and secondary schooling, the number of students qualified for admission to higher schools naturally grows. This factor, working with the tendency for the postsecondary institutions to admit students from various types of secondary schools rather than from exclusively academic ones, inevitably increases the flow of young people from school to college.

Changes in admissions requirements to numerous institutions have also contributed to growth in higher education and afford striking evidence of a new philosophy concerning educational opportunity. Cerych (1972) has identified several such instances,

including the new admissions policy of the British Open University, the liberal policy obtaining at the University of Vincennes in Paris, and the Swedish experimental plan allowing anybody over age 25 to enter the university after five years of employment. Additional examples are reported later in this section as new types of institutions are discussed. As one talks to European educators, it is apparent that the older rigid admissions plans long followed by many institutions are up for review and probable relaxation.

COMMON CONCERNS: OPPORTUNITY AND ACCESS

Evidence of concern about educational opportunity was manifest in the papers presented by several European countries at a meeting convened by OECD in Paris in December 1970. A common outline for use by all countries called for a statement of each country's goals and general characteristics of postsecondary education. An impressive feature of the conference was the extent to which the various countries emphasized such matters as the principle of access, the necessity for satisfying the social demands for postsecondary education, the insistence that all postsecondary education should be regarded as higher education, the trend toward equality of opportunity through the removal of obstacles to the transfer of students from one postsecondary establishment to another, the necessity of enabling anyone—whatever his socio-economic position—to participate and succeed in higher education, and the need to change the rules of admission so as to increase the freedom of choice for the majority of young people. In fact, as a participant in that conference, I was impressed by the similarity of the themes to those which one is now accustomed to hearing stressed at professional conferences in the United States.

Excerpts from only a few of the unpublished papers presented by representatives of the countries are sufficient to reveal the changing educational philosophy on the continent. Note, for example, a statement presented by Germany:

Political parties, trade unions, teachers' and parents' associations and other groups are demanding a greater amount of assimilation between the various types of secondary schools and postsecondary institutions to make it easier to pass from one system to the other according to personal abilities. At the heart of the developments such claims aim not only at an adequate reform of the whole educational system but also at its democratization. Democratization means that everyone should have the chance to get the best possible education taking account of his individual capacities and needs, and that no institution should give privileges to any particular group of society. The governments of the Länder are trying to meet these demands in planning reforms.

More specifically, Sweden reported several changes in admissions policies:

The report of the KU commission (The Commission on Admissions to Higher Education) suggests that general right to postsecondary study be granted to all those who have completed upper secondary studies in any one of the 22 lines of study. In practice this will mean that within a few years almost all 19-year-olds will have the right to be admitted. Most postsecondary study, however, will require some specific initial knowledge, such as mathematics and natural sciences for the study of medicine. For every postsecondary field of study a careful analysis is being carried out on the specific knowledge and experience required for admission. This analysis will in the end result in a set of national rules for admission. An important complement to these admission rules, based on the completion of the new upper secondary schools, will be rules that grant the right of postsecondary study to adults.

The new rules of admission will increase the freedom of choice for the majority of young people. The flexibility between the secondary and postsecondary parts of the

educational system will increase. A combination of vocational training and academic education, for instance, which has until now been exceptional, will in the future be accepted and looked upon as normal.

Similar remarks can be quoted almost endlessly, and from papers presented by countries as diverse as Finland and Portugal. The statement from Belgium itself epitomizes the conference's common emphasis:

These studies all emphasize the need to renew the structures of higher education in the light of its specific aims. This implies essentially that higher education be linked with reality, in particular by renovating teaching methods, democratizing the internal life of the establishments, ensuring access to such studies for all strata of the population and instituting an effective system of control over the subsidies granted to higher educational institutions by the community.

Such statements at best only reflect goals or philosophic orientations, but they do constitute evidence of the pressures leading to a far greater degree of democratization in postsecondary education than has existed in the European past.

The primary emphasis in these conference papers was a philosophic acceptance of improved access and equality of opportunity. How are these goals being pursued in practice?

It is obviously impossible to be completely up-to-date on educational developments in complex systems of higher education in the large number of countries that comprise continental Europe. Even if information were readily available, to report it in so brief an essay as this would be both inappropriate and inescapably superficial. The intention is to focus here upon only a few significant indicators of change. One particular development worthy of special note is the trend in several countries toward "short cycle" education. This is a term used to designate efforts to augment the comprehensive services

of higher education systems by establishing institutions to offer relevant programs for the increasing diversity of students or by providing such programs in existing institutions. These programs are generally of shorter duration than those in the conventional university. The term is one used by OECD and its member countries in Europe and does not appear in the literature outside that region, although for discussion purposes the two-year colleges elsewhere are regarded by OECD as short-cycle institutions.

An excellent discussion of such education as it exists in non-university institutions is found in Part Two of the OECD publication *Towards New Structures of Postsecondary Education* (1971). The report concludes that short-cycle institutions have developed primarily as a means of responding to the increasing pressure of individual demand for higher education, contributing to the equalization of educational opportunity, responding to the growing needs for a wide and diversified range of qualified manpower, and generating innovation in the postsecondary system.

More specific descriptions of representative short-cycle programs or institutions are contained in papers prepared by various countries for an OECD meeting in Grenoble, France, in November 1971. A few of the developments reported by several of the countries are reviewed below. Such a review must be regarded, however, as indicative of the trend toward diversification of opportunity rather than an up-to-date directory of new institutions and programs.



FRANCE

The principal effort in France to establish short-cycle education is through its University Institutes of Technology (IUTs). Although the position of these institutions in the French university

hierarchy seems not to be permanently settled, their chief purpose is to train technicians; particularly through two-year terminal courses. That the IUTs are part of a larger university system, however, makes it possible for students who start in the IUT to continue their studies in a "second cycle."

Ironically, admission to the terminal programs in the IUTs is more selective than is admission to the academic programs of the universities, partly because of the fewer numbers of places in the IUTs for which students must compete, and partly because universities in France cannot deny admission to any student with secondary school qualification. In some respects, then, it is hardly correct to cite the IUTs as examples of extended opportunity. That they break the mold of traditional French higher education, however, serves at least to make them examples of new ways of serving people.



SWEDEN

Authorities and planners in Sweden are struggling with the problem of effecting new types of postsecondary education with an emphasis on vocational education. As part of a long-term plan, the goal is to effect a viable combination of vocational training and theoretical studies and an "interplay between work and education throughout the life of an individual." Meanwhile, a short-term plan has been effected on an experimental basis which combines vocational work taken in the upper secondary schools with academic work offered in the universities. Admission to the program is based on the completion of secondary schooling. Once admitted, the student spends the equivalent of a year each at the vocational secondary school and the local university. The intention is that the

two parts of the program should be well integrated, although authorities report some difficulty in bringing this about.

Some of the universities themselves have introduced vocationally oriented courses which normally run for six months, particularly for adults who do not meet conventional university admission requirements. It is reported that for the academic year 1971-72, some 4,000 students are enrolled in such programs.



NORWAY

Norway has recently established several Regional Colleges (originally referred to as District Colleges). These institutions grew out of a recommendation of the Royal Commission for Higher Education, established in 1965, to propose the overall structure and size of higher education. Its mandate included the need to consider diversification, recurrent education, and alternatives to the existing system. In 1967, the commission proposed a new system of regional centers for higher education to integrate short-cycle specialized schools in the country. The commission projected the need to accommodate an increase in the number of postsecondary students from 30,000 to 100,000 in the next 20 years, and proposed that the growth should be especially strong in the nonuniversity sector. Three regional colleges were established in 1969 and three more in 1970, with a total of some 15 colleges planned for the future. The pattern of study differs from the university mold by combining interdisciplinary studies with practical work and providing inversed sequences of theory and practice as well as opportunity for part-time studies and recurrent education. As its name implies, each regional college is expected to become well integrated into the area it serves. At the same time, the colleges are in the process of establishing close linkages with the universities to facilitate transfers.

Nontraditional criteria are used in the admission of students to the regional colleges. Some of those admitted possess the standard secondary school matriculation requirement, but it is reported that an increasing proportion of applicants without secondary school certificates are entering by means of another route.

As in some of the other European countries, something of an anomaly exists with respect to admission to postsecondary institutions. Prior to the establishment of the regional colleges, Norwegian universities were more open than most of the newer specialized short-cycle institutions. Even now, the regional colleges can only accommodate about 50 percent of those who apply. Undoubtedly, many of those rejected who hold school certificates find places in a university as a "second choice." Thus, the opportunity extended by the establishment of the regional colleges is reflected primarily in decentralization of locations (the regional concept of proximity), the liberalization of admissions standards, and the development of an entirely new type of program.



YUGOSLAVIA

In some respects, the most dramatic development of short-cycle education in separate two-year institutions is found in Yugoslavia. Here the *Visa Skola* operates in a manner similar to the community college in the United States, although primary emphasis is placed on the terminal aspects of the program. Data from the *Statistical Yearbook* of Yugoslavia reveal that in 1969-70 one-third of the enrollment in the country's higher institutions was in its two-year postsecondary schools, and that these were attending on a part-time basis.

The two-year institutions began to develop in the early 1960s following a Resolution on Technical Personnel which urged that new

approaches to technical education and training be sought as a means of satisfying the economic and social needs of the country. Moreover, it was held desirable to establish training institutions in the outlying political regions of the country. Their growth and development has been steady; in 1969 the number of graduates of the two-year schools was two and one-half times greater than it was in 1962.

From a technical or legal point of view, it can hardly be said that admission to the two-year schools is less restrictive than to other higher institutions, since by law all institutions of higher education must admit graduates of secondary schools. In practice, however, the universities are much more selective than the two-year colleges, thus making the situation comparable to that found in the United States. Each institution is at liberty to accept other applicants, even those without formal secondary qualifications, provided they are of a prescribed age, have had a certain amount of work experience, and can pass a prescribed entrance exam. The report from Yugoslavia indicates that of the students attending the two-year schools, about one-third come from grammar schools and the remainder from secondary schools. The large proportion of part-time students found in the two-year schools indicates their role in the upgrading of personnel and in recurrent education. Although it is possible for graduates of the separate two-year schools to transfer to universities, the number who do so is comparatively small, a fact that underscores the specific technical training role performed by these schools.

IN OTHER COUNTRIES . . .



The instances cited above are by no means the only illustrations of efforts on the part of European countries to open new avenues of higher education through the short-cycle approach outside the university sector. Germany, for example, has established

two types of technical colleges. One type are postsecondary institutions (Fachschulen) with minimum entrance qualifications which offer work of between six months' and two years' duration in designated fields. The other type is the Advanced Technical Colleges (Hohere Fachschulen) with more stringent entrance requirements and a somewhat higher instructional level leading to employment as high-level technicians or to transfer to certain universities.

Portugal is also planning Polytechnic Institutes for the preparation of highly skilled personnel. Admissions standards will be flexible, and training will be for two to three years. These institutes, together with teacher training colleges and the universities, will comprise the total postsecondary system. In the Netherlands and in Spain a great deal of attention is currently being given to the restructuring of higher education in ways that will make short-cycle institutions an increasingly integral part of each system.

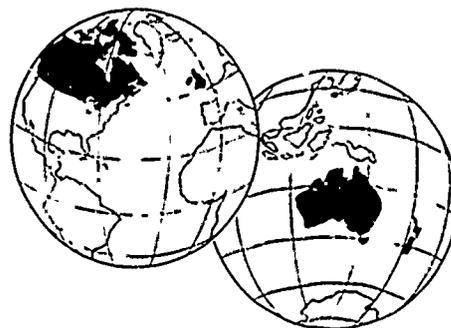
The foregoing examples of new institutions serve only to highlight some of the signs of expanding opportunity. The point must be repeated, however, that the opportunity provided by many of the new institutions is not characterized by an "open-door" philosophy, but rather by the creation of diverse institutions and admissions criteria. Indeed, some of the newer short-cycle institutions are selective, whereas their neighboring universities may be "open" to those who qualify for admission by traditional standards.

It seems apparent that postsecondary education is in the process of considerable change in all European countries. Although mass education is still more of a goal than a reality, the efforts to bring it about have created many problems. These include devising the means of articulating educational programs between the varying institutions and finding financial support for an increasing enrollment in a variety of institutions. Furthermore, as in all situations where institutions are being developed to meet the new needs of mass education, the problem arises of avoiding the possible branding one type of institution less prestigious than another. But

these are some of the growing pains of the transition from elite to mass education which each country has to face in its own unique way. We will return to this topic in the concluding section of this report.

3

The Quest in the British Commonwealth



Although the British Commonwealth is an increasingly amorphous political concept, it affords a loose, if somewhat arbitrary framework for discussion of postsecondary education in Great Britain, Australia, New Zealand, and Canada. While these nations draw upon a common background of language and intellectual tradition, it will be evident that no great degree of uniformity marks the ways in which they are meeting the demands for expanded educational opportunity.



GREAT BRITAIN

In Britain today, the most impressive evidence of a move to democratize higher education is the establishment of the widely publicized Open University. The opening of this institution early in 1971 has had a profound influence on higher education; in the two years since its establishment, educators from all over the world have literally streamed to the headquarters of this unique institution at

Milton Keynes, a small town 30 miles north of London. That Great Britain, noted for its long history of elite university education, established a university that admits students without formal academic entrance requirements can be seen as a dramatic move toward educational egalitarianism.

The establishment of the Open University may be regarded as a culminating development in the country's evolving effort to infuse flexibility and greater access into its system. Before surveying the workings of the Open University, therefore, the discussion turns to other, earlier developments in British higher education that have signaled that nation's concern for educational opportunity.

The universities in the United Kingdom have accommodated an ever-increasing proportion of an age group. In 1950 the proportion reaching the university level was 1 in 31; in 1959, it was 1 in 24; and in the late 1960s it was 1 in 15.

PATTERNS OF "FURTHER EDUCATION" IN BRITAIN

In reviewing British tertiary education, it is important to remember that historically the elite university system has been supplemented by other institutions of higher education and by an emphasis on "further education." Forty-five vocational and technical colleges were developed late in the last century. Originally these were to serve primarily as evening institutions, but their function later expanded to serve students who were released from employment to attend classes for one day each week. Work in these schools led to the Ordinary National Certificate (ONC) and the Higher National Certificate (HNC).

As time passed, the early technical colleges became the basis for an elaborate and complex system of further education. They increased greatly in number, and most of them diversified their curricula to include courses in the arts and commerce, as well as in technical fields. Certain of them became largely responsible for

Britain's famous "sandwich course" program, in which professional training in industry constitutes an integral part of a person's education. One familiar "sandwich" recipe calls for a four-year pattern in which six-month periods of industrial employment alternate with comparable intervals of college work. Naturally, the technical colleges did not all mature at the same rate; thus some remained designated as "local" colleges, others as "area" institutions, and still others as "regional." Ten of them, eventually designated as colleges of advanced technology, later evolved into technological universities. A number of national colleges were also established for meeting certain manpower needs in technologies which required only one or a limited number of institutions to do so.

A watershed date in British higher education came in 1963 when the Committee on Higher Education under the chairmanship of Lord Robbins issued its report. An important element of the report was a recommendation that the country provide sufficient university space to meet the enrollment demands of the growing number of qualified students. A specific recommendation was that ten of the colleges of advanced technology be given university status, and that other new universities be established. In fact, the committee recommended that in time a limited number of regional technical colleges might become universities. At present, there are 45 universities in the United Kingdom, of which 34 are in England.

But the Robbins Committee Report (1963), significant as its recommendations were for changes in the university system, was less specific about other segments of tertiary education. Its projections of the places needed in full-time higher education by 1980 proved too modest: they were exceeded by 1967. Moreover, achievement of some of the Robbins Report's proposals exposed other, unanticipated needs. The transition of the colleges of advanced technology into universities, for example, created something of a vacuum in manpower training facilities of a non-university nature, and it was necessary to create still another type of institution to meet this need. Consequently, in 1966 plans were made to transform a certain number of the existing regional colleges (including certain

colleges of art and commerce) into polytechnic institutes, which would stand at the apex of the non-university system. By 1970 more than 20 such institutions had been designated, and at least 10 more had been proposed.

Operated within the Department of Education and Science, the polytechnics are presumed to be "teaching institutions" closely linked with industry and commerce, providing both full-time and sandwich courses, yet also meeting the needs of part-time students in their respective regions. They offer work leading both to diplomas and to first and higher degrees awarded by the Council for National Academic Awards. Degree students must meet ordinary admissions standards, but not all of the minimum university standards of the two A-levels. Part-time special students are subjected to varying and less stringent requirements. That the polytechnics have gone far in expanding educational opportunity is evident from the enrollment data reported in the following table.

Table 1
POLYTECHNIC STUDENTS

	Advanced Courses		Nonadvanced Courses	
	November 1969	November 1970 (provisional)	November 1969	November 1970 (provisional)
Full time and sandwich . . .	58,503	61,300	8,844	7,000
Part time day	29,969	29,300	29,533	23,000
Evenings only	20,210	19,400	15,855	12,000
Total	108,682	110,000	54,232	42,000

Source: Department of Education and Science. *Education and science in 1971*. London: HMSO, 1972, p. 16.

Despite these efforts to establish and maintain a polytechnical system that would provide a wide variety of educational functions of a non-university nature, there are signs that these institutes may become more like the colleges of advanced technology. In this case, as elsewhere in the world, the desire of new institutions to emulate the older university model causes them to

lose many of their distinctive features. McConnell and Berdahl (1971) report that early in the history of the polytechnics it became clear that full-time enrollment and full-time courses were expanding, while part-time students and courses were declining. The authors also report that the polytechnics have accelerated programs in the arts and social sciences, and that in other ways, too, they are becoming ever more similar to universities. Such a transformation does not, of course, suggest that educational opportunity *in general* suffers, but it does imply that opportunity for full-time students, primarily those with the credentials to enter degree programs, may be expanding at the cost of opportunity for those with lower qualifications and expectations.

Are there other indices that postsecondary education in Britain is moving toward more varied opportunities for this latter group? Indeed, the various colleges for further education (those that did not become polytechnics) at both local and regional levels remain significant. An index of their importance is the large number of students, more than 15 times the number attending polytechnics, served by these institutions. Attendance is reported below:

Table 2
STUDENTS ATTENDING GRANT-AIDED
FURTHER EDUCATION ESTABLISHMENTS*

	Autumn 1969	Autumn 1970	Autumn 1971 (provisional)
Full time	227,700	237,800	238,200
Sandwich	33,500	36,500	39,400
Part time day	756,100	748,700	688,100
Evening only	712,700	736,400	719,100
Total	1,730,000	1,759,400	1,684,800

*Excluding evening institutes.

Source: Department of Education and Science. *Education and science in 1971*. London: HMSO, 1972, p. 16.

Moreover, the Industrial Training Act of 1964 mandated training boards for levying funds to workers in industry and/or commerce in an "off-the-job" situation, mostly by day-release or block-release to technical colleges. This move had a far-reaching effect on further training of a limited nature. While the effort is not functionally a part of the tertiary system, it should not be overlooked in assessing expanded educational opportunity in Britain.

Two other developments are of potential significance in expanding and diversifying the formal system. One of these is a recommendation contained in the recent report of the Teacher Training Inquiry under the chairmanship of Lord James of Rusholme (The James Report, 1972). The report proposes that the education and training of teachers be divided into three stages or cycles, the first of which, for some teachers, would be the completion of a two-year general course leading to a Diploma in Higher Education. This recommendation is particularly significant when coupled with the report's suggestion that the two-year course should be equally beneficial to many students who have completed the sixth form and "having no attractive alternative, enter existing higher education without proper motivation." The report implies that the two-year course would be attractive to prospective employers as well as a base for further preparation to teach. The students completing it would have an adequate period for decisionmaking without having to make premature choices at age 18. The diploma holder might also, under certain conditions, transfer to universities or polytechnics which would accept at least part of the two-year course toward degree requirements.

The recommendation in the James Report (1972) for the two-year course has yet to be considered. If implemented, the course presumably would be offered by existing institutions, although there are proposals to establish new institutions for the diploma program. The important point to be emphasized here, however, is the possible creation of still another unit of education beyond the secondary level that is sufficiently diverse in nature to constitute a new avenue of opportunity for students whose occupational plans are still open.

The second development is, like the James Report proposal, an independent recommendation for an intermediate organizational unit. The present college preparatory year—deeply imbedded in the British system and known as the sixth form—is now commonly offered in certain secondary schools. However, some educational leaders are recommending that new sixth form colleges be established separately from the schools. The presumed merits of such a proposal are that the curriculum of such colleges could be enriched and perhaps expanded to include courses leading to work rather than to other institutions of higher education. So far, limited action has been taken on the proposal. Many of the secondary schools are opposed to the idea, yet various educational agencies recommend it. Even among its adherents, there are differences of opinion about whether the sixth form, if removed from the schools, should be lodged within existing technical colleges or polytechnics or relocated in a new separate institution. Nevertheless, in October 1971 there were ten sixth form colleges in operation under various authorities.

Aside from the two developments mentioned above, there has been no notable move in Britain toward new two-year institutions such as those found in several other countries. The Robbins Report (1963) had not recommended that the country establish a community college system.

Paralleling these attempts to alter and expand the formal system for students now coming of age stands the significant British attempt to create—through its Open University—a whole new avenue for those older youths and adults who for one reason or another did not pursue an advanced education earlier. Here again, the stubborn fact of number is itself impressive. Since the Robbins Report reasoned that a greater percentage of the relevant age group could profit from higher education, then it is likely that a great number of adults experienced educational deprivation only because not enough places existed. It is believed that more than 1,000,000 additional persons would have been qualified for higher education had the Robbins criterion been applied a generation earlier. But in a

population of 50,000,000, this is not an inconsiderable number, and the Open University was designed with this "forgotten million," among others, in mind.

THE OPEN UNIVERSITY

Because so much has been written about the operations of the Open University that will be familiar to most readers of this report, it is hardly necessary to describe it at length here. However, a few facts about the means through which it extends opportunity bear noting here. The university was granted a Royal Charter in November 1969, which stated that its objectives "shall be the advancement and dissemination of learning and knowledge by teaching and research by a diversity of means such as broadcasting and technological devices appropriate to higher education, by correspondence tuition, residential courses, and seminars and in other relevant ways, and shall be to provide education of University and professional standards for its students and to promote the educational well-being of the community generally." Basically, the mode of teaching is through home study facilitated by the distribution of written materials; television and radio broadcasts transmitted by the British Broadcasting Corporation; written assignments which are returned to a staff for evaluation; a national network of some 250 regional centers to further facilitate enrollment, teaching, and counseling; and a required period of residence during the summer in one of the British universities.

The work offered by the Open University is designed to meet full university standards leading to a B.A. degree. To date it is limited to foundation courses in science, humanities, social science, mathematics, and technology.

The first group of students admitted to the University in January 1971 represented a wide range of occupational groups. By far the largest group (approximately one-third) was teachers. About 10 percent came from each of the following groups: housewives, professions and the arts, scientists and engineers, and a combined

group of draftsmen, laboratory technicians, and assistants. The high proportion of students among the teaching profession follows the pattern found in the external degree programs of the Australian universities, although the percentage is lower in England than in Australia. Presumably, the percentage from other occupational groups will increase as information about the Open University becomes better known. So far, however, it has done little to serve the working classes.

The influence of the Open University in England has had an impact on many other parts of the world, particularly the United States, as evidenced by the current concern about the external degree program and other schemes to "extend the university." It continues to be studied and observed by educators from many countries. Naturally, however, the most pressing questions are asked by the British, who must assess its long-term effectiveness as an educational agency and its comparative costs to both students and the country.

Indeed, some recent developments in Britain potentially may change both the polytechnics and the Open University. Government officials are stressing the need to reduce costs in higher education. One recommendation is that in the future the polytechnics involve themselves more with two-year courses and less with courses that qualify students for degrees. Another recommendation is that the number of places in the universities be reduced. Also, pressure has been exerted by the Department of Education and Science upon the Open University to initiate an experiment in 1974 in which 500 students aged 18 to 20, half with A-level qualifications and a similar number without, would be admitted. An editorial in the July 14, 1972 issue of the *Times Higher Education Supplement* criticized both the move to emphasize two-year courses in the polytechnics and the experimental program for the 18-year-olds in the Open University. Criticism of the admission of younger students, half of whom would normally be candidates for admission to the other universities, rested on the argument that as younger students are

admitted—presumably as an economy measure—the less likely will the Open University be able to serve educationally underprivileged adults. Publicly at least, both the Department of Education and Science and the Council of Open University contend that since the group of 500 younger students is relatively small in comparison with the total student population of some 40,000 that the Open University is expected to serve by 1974, the move is not a serious deviation from the institution's primary purpose of serving the older age group. The question arises, however, as to whether the move to admit the younger group is only a beginning, and whether eventually Open University will be yet another example of an institution which has become something very different from the nature and purpose for which it was created.

One additional fact about new developments in Britain is that after a long tradition of awarding external degrees on the basis of examination, the University of London is now terminating this practice except for private students. The university argues that although it once provided the only opportunity by which a student could obtain a degree without attending a university, the creation of the Council for National Academic Awards in 1964 makes this function less indispensable because students may now receive degrees for work pursued in the polytechnics. The new policy of the University of London poses some questions for the United States and other nations that only now are beginning to emphasize the granting of degrees on the basis of examination results.



AUSTRALIA

In certain respects the Australian higher educational system has more characteristics in common with the American system than it does with its Commonwealth partner, Great Britain. As in the

United States, responsibility for the education system is considered an important local right, even though the Commonwealth government sets the pattern of financial support through its system of grants to universities and colleges. The Commonwealth government also has jurisdiction over education in the several non-state territories.

The present tertiary system in each of the six states includes one or more universities, one or more colleges of advanced education, one or more teachers colleges, and several technical colleges. Responsibility for components of this system is divided. The universities and colleges of advanced education are coordinated by one statewide agency, while the technical colleges in each state are the responsibility of the Director General of Education. At the federal level, one agency sets the standards and support levels for the universities, while another holds similar responsibilities for the colleges of advanced education.

Perhaps the most significant move in Australia is the rapid growth and expansion of the colleges of advanced education (CAEs). These institutions grew out of a recommendation made in 1964 that technical institutions be expanded to supplement the services of the universities. Since 1965, nearly 50 institutions have been designated as CAEs, although only a few actually use the title.

Certain of the CAEs are quite specialized in that they concentrate on such areas as agriculture, art, forestry, or paramedical occupations. Others emphasize the general field of industrial technology. Still others, especially those that serve statewide constituencies, are comprehensive in nature. The curricula offered in them may include agriculture, architecture, art, biology, business, catering, nutrition, food services, chemistry, chiropody, dental therapy, engineering (with its several specialties), geology, journalism, librarianship, mathematics, metallurgy, mining, music, nursing, occupational therapy, optometry, pharmacy, applied physics, physiotherapy, applied science, speech therapy, surveying, and teacher training.

The CAEs are significant steps forward in the quest for expanded educational opportunity. It is impressive that the Australian government has recognized the need for a non-university, tertiary institution which emphasizes practical and applied training. The system has grown rapidly. The total enrollment in 1969 was nearly 43,000, and several institutions have since joined it. These institutions, moreover, are affording opportunity to new groups of students. A recent study (Horne, 1971) concludes that the individuals who enroll in them tend to come from homes in which the educational attainments of both parents are lower than those of students who attend Australian universities.

Of special significance, however, is the upward mobility which characterizes these institutions. Originally established to concentrate on higher certificate and regular diploma courses, a number of them have now been given higher diploma and degree-granting privileges. Moreover, they are in the process of achieving parity with the universities in such matters as faculty salaries and working conditions. The newer and recently established institutions, such as the Western Australian Institute of Technology and the Canberra College of Advanced Education have large and imposing campuses, and some of the older institutions, including the Royal Melbourne Institute of Technology, are in the process of acquiring new and ample quarters in central metropolitan areas.

Increasingly, the CAEs thus tend to resemble the universities and seek to move into advanced professional training in fields such as pharmacy, business, chemistry, and agriculture. The CAEs contend that they are filling a void created by university neglect. Many of the leaders in the CAEs are progressive as well as aggressive, and it can be assumed that they will move vigorously toward what resembles university status. In fact, the evolution of these institutions may not be unlike that of the colleges of advanced technology in England or of the land-grant colleges in the United States.

As the CAEs become increasingly involved in degree and higher-level programs, however, they tend to reduce their emphases

on the training of lower levels of technicians, and thus leave a vacuum in the very area for which they were established. This situation is already evident, and is giving rise to other forms of tertiary education.

Despite their growing tendency to extend themselves upward, these institutions play an important role in diversifying postsecondary education in Australia. By and large, the CAEs provide a broad range of applied curricula which include general as well as technical education. In so doing, they serve a clientele whose requirements would not be met by other means.

Australian higher education has long been characterized by its emphasis on external study as a means of reaching individuals, particularly teachers, whose work situation or residence in a remote area makes it difficult for them to attend college on a regular basis. The continued emphasis on this type of study at certain universities and CAEs serves as yet another national example of the international persuasion that flexible time and place arrangements for the pursuit of further education are a modern necessity.

No unanimous opinion has ever existed among educators and laymen in Australia about the role of external study, particularly in the universities. Various committees appointed by state and Commonwealth governments to recommend directions in higher education have held conflicting views with respect to this form of education. For example, while the Murray Report (1957) of the Committee on Australian Universities contained a strong recommendation that programs for external and part-time students continue as "a most distinctive feature of the Australian scene," an opposite point of view was expressed in the report of the Martin Committee (1964), which recommended that external study be phased out. The Commonwealth government, however, rejected this idea. Several state studies also resulted in recommendations for the continuation of external studies, although some reports have proposed various means of improving the practice. Opposition also has been encountered from faculties in individual universities; indeed, the provision of such studies is by no means uniform at the

several universities. External study leading to a degree receives its greatest emphasis in only three universities: New England, Queensland, and Macquarie.

When part-time and external students are combined, they constitute approximately 40 percent of the total enrollment in all Australian universities and, as shown in the following table (Goodman, 1971) an even higher percentage at the three institutions mentioned above.

Table 3
STUDENT ENROLLMENTS BY CATEGORIES, 1970

	University of Queensland	University of New England	Macquarie University
Full time	7,610	1,886	2,016
Part time			
Internal	5,482	202	1,669
External	3,281	3,191	469
Total	16,373	5,279	4,154

Source: Committee of Enquiry into External Studies 1971. University of Queensland.

Although there are differences in the characteristics of the extended degree programs in the three universities for which data are reported in the above table, there are also many similarities. For one thing, they tend to serve a young population; over 70 percent of the external students at the University of New England are between the ages of 20 and 35. In that university, 80 percent of the external students are school teachers, and the percentage of teachers in the Macquarie and Queensland programs is also high. All three universities report that although many students do not persist, those who do so have academic achievement records comparable to the internal students. The external programs are also similar in that all three of them rely primarily on the written word and home study as the means of teaching, although the use of audio tapes is also

becoming more common. Varying, but limited use is made of regional learning centers. All three universities require that external students spend some time on campus (two or three weeks) as students in residence during the university summer vacation when regular internal students are away and dormitory facilities are available.

In some respects, one of the most innovative extension programs in Australia is the relatively new one at the University of New South Wales. Here the emphasis is on the refresher courses for postgraduate students rather than external teaching primarily for credit or purposes of degree fulfillment. Moreover, the principal media for such services are the electronic devices of radio, television, and video tapes—supplemented by comprehensive lecture notes. Some ten years ago, the university (a former technological institute) installed the first instructional radio station in Australia primarily to offer updating instruction for engineering graduates. In 1970, more than 1,800 individuals were enrolled in engineering refresher courses. Now the university's service has spread to graduates of other professional schools.

External programs have not been extensively established in the CAEs. Two notable exceptions, however, are the Royal Melbourne Institute of Technology and the Western Australian Institute of Technology at Perth. The former, a long-established institution, has maintained an external program over several decades which now serves some 8,000 students annually. The more recently established Institute at Perth is vigorously undertaking an external program which includes courses in business, applied science, mathematics, social science, home economics, and educational administration.

The external degree program in Australia has been surveyed here so fully for two reasons. It is an important method of extending educational opportunity in the country, and it has certain implications for the move within the United States toward the granting of external degrees and other forms of nontraditional study.

Despite the emphasis that certain Australian institutions place on this method of education and the number of people who are served by it, there are those in the country, however, who are critical of its achievements. They contend that it does not serve a wide segment of the population and that much of it is not a sufficient force in retraining.

Another group of increasingly important Australian institutions are the technical colleges under the jurisdiction of the Department of Education in each of the states. These institutions are not new to the Australian scene, although technical colleges have in fact been transformed into CAEs in the past few years. In this process, however, the curricular emphasis shifted to higher level diploma courses leading to positions as technologists and away from certificate courses leading to middle or lower level technical employment. As has happened elsewhere, this upgrading of one set of institutions has created a hiatus in the supply of program services. In Australia this void has been partially filled by establishing new technical colleges or expanding the range of existing ones, although this development is uneven among the states and in some instances is regarded more as a potential than a reality.

Most of the work taken in the technical colleges is on a part-time basis and may extend over several years beyond high school. A higher technician's course leading to a certificate might be completed in four years beyond Form 5 (last year of the secondary school), although the same course could be completed in two years if a student attended fulltime.

The line of demarcation between secondary and tertiary education becomes exceedingly blurred when attention is turned to the technical colleges. These colleges are neither recognized nor supported by the Commonwealth government as part of the country's tertiary system. Yet they serve thousands of older youth and adults. In a number of instances, the technical colleges operate in conjunction with local CAEs. In New South Wales some of them are even empowered to offer diploma courses. The Director of Technical

Education for that state reported that the various technical colleges had an enrollment in 1971 of over 150,000 students of whom 16,000 were in diploma courses, approximately 35,000 in certificate courses, and the remainder in special programs leading to matriculation qualification for college.

Visits to a number of the technical colleges in both urban and rural areas revealed a great unevenness both in the apparent leadership and in the physical facilities of these institutions. Nevertheless, considering the need for flexibility and diversity in further education, the technical colleges of Australia appear to make an important contribution. Because of their wide distribution in both metropolitan and country areas, they render a particularly valuable service in democratizing opportunity for part-time vocational training.

RECENT DEVELOPMENTS

Two recent developments in the country are indicative of the trend toward changing patterns and extended opportunity. One of these is the move toward a concern for "further education" which encompasses mainly the borderline area of the technical schools and colleges and adult education. A recent report of the Committee of Engineering and Education in South Australia (1971) concluded that further education "has in the past been a kind of wasteland between the schools and tertiary education" and pointed to the necessity for strengthening the various programs for older youth and adults. Based on the report's recommendation, a Division of Technical Education within the Education Department has been established as a separate department under a director responsible to the Minister of Education. The Department of Technology in New South Wales is soon to be renamed the Department of Technical and Further Education. Tasmania has already moved in the same direction. A

general concern is thus developing for a structure that meets new social and manpower needs.

A second development is the move in certain parts of the country toward separating the upper year(s)—the sixth form and sometimes the fifth form also—from the individual secondary schools and placing them in separate “colleges.” Such a move has already been made in Tasmania by the establishment of what is termed “matriculation colleges.” The government of the Australian Capital Territory (ACT) recently proposed a plan which would involve the transfer of all fifth and sixth form students to “colleges.” Strong arguments were made that such an arrangement would divide the secondary span in a way that would better serve the needs of Forms 1 through 4 and that the older, more mature and more homogeneous group in Forms 5 and 6 could have the benefit of a separate program designed especially for them. Those advocating the plan said that the “college” would bridge the gap between secondary education and employment or tertiary education by preparing students for either path. The plan was opposed by the teachers union, but as of November 1971, the advocates of separate sixth-form colleges reported that they were intent on effecting the plan.

Related to the argument over the sixth form is a growing concern about admissions practices. At present, admission to degree programs in universities and CAEs is based on a student having successfully passed an external examination leading to a Higher School Certificate (formerly referred to as the matriculation examination). There appears to be a certain amount of flexibility even in the universities for modifying the requirements for older applicants, particularly those who wish to pursue degree work by external study. The CAEs also tend to be more flexible than the universities, especially in the admission of students to diploma courses.

There is, however, considerable concern throughout the country about the criteria for admission, and especially about the

principle of the subject-centered, achievement-type external examination. The secondary schools themselves are voicing strong objection to the practice of basing admissions on the results of external examinations. Preparing students for such an examination dominates the curriculum and decreases the opportunity to plan a program which meets the full range of student needs. The higher institutions also express concern over the unsuitability of such an exam in predicting success in a tertiary system of increasing diversity.

There is now under way a cooperative experimental project, known as the Tertiary Education Entrance Project, funded by the Commonwealth Department of Education and Science and coordinated by the Australian Council for Educational Research, to develop a battery of scholastic aptitude tests for experimental use. Recently, other similar projects have been proposed, and a growing body of opinion emphasizes that the secondary schools should be allowed to certify those of their graduates who should be considered eligible for college. Individual states also are studying the problem, and it seems likely that in the next few years a new system of college admission will emerge.

Unlike many other countries, the system of higher education in Australia has always been relatively open. Thus, at the moment the concern is not so much to expand the system, but rather to improve the selection process and liberate the secondary schools. However, enrollment quotas in the universities appear inevitable. Any improved system must therefore also aid in the selection of those aspiring to enter universities while still affording flexibility for admission to other tertiary institutions.

NEW ZEALAND



Educational opportunity, even at the higher level, in the relatively small country of New Zealand (population: 3,000,000

people) has long been a national goal. Today, the number of school-age children actually in school approaches 100 percent. Admission to the universities is much less restrictive than in many other countries, and other types of tertiary institutions provide opportunities for young people and adults to continue their education.

The higher education system is composed of seven universities, nine teachers colleges, and a growing number (now 12) of technical institutes. Only the universities and the technical institutes are discussed here, since they most adequately reflect the country's continuing concern about the options for postsecondary education.

The recent history of the New Zealand universities gives evidence of a system designed to provide considerable opportunity for higher education. Until 1961 the University of New Zealand was a single unit, constituted as an examining body with affiliated colleges for teaching. In 1959, the government-appointed committee on New Zealand Universities recommended that the constituent universities become autonomous. Consequently, in 1961 the University of New Zealand was superseded by four independent institutions. By the end of the decade the number had increased to seven, with a total enrollment of 29,202 internal students. All qualified students are by law entitled to admission although individual universities may impose restrictions for administrative reasons such as insufficient staff and facilities.

The Standard School Certificate is awarded to those who qualify on the basis of a national examination administered at the end of the third year of the secondary school to students who at that time are generally 15 years of age. (In New Zealand formal schooling begins at age five.) A year later, at the end of the fourth secondary year (Form VI), students may qualify for university entrance either by passing the national University Entrance Examination or by being "accredited" by their secondary school under regulations of the Universities Entrance Board. (At present about 75 percent of the

students who achieve eligibility do so through the accrediting route.) It is reported that of those with the academic qualifications for university entrance, only about 30 percent do not seek it. Although students may be admitted to the university upon qualifying at the end of the sixth form, about half of them remain in the local secondary school to complete a seventh form to enhance their opportunity of qualifying for scholarships. Those who did not qualify for entrance at the end of the sixth form may wait until the end of the seventh form and qualify by passing the University Bursaries Exam.

As in Australia, any discussion of the university system in New Zealand is incomplete without reference to the external degree program. Unlike Australia, New Zealand has by agreement provided that one university bear the chief responsibility for the external degree program. The particular institution so designated is Massey University in the North Island. Out of an enrollment (in 1971) of approximately 6,000 students, some 2,200 were external students working toward regular degrees or diplomas. It is not possible, however, for a student to obtain a degree in any of the universities without some residence work. Studies completed in the lower undergraduate years at Massey are so arranged that they fit into the degree structure at other New Zealand universities.

Thus, in New Zealand the universities constitute an important segment of the country's comparatively open system. Although there is continuing discussion about the process of university entrance, a 1970 report of a Working Party established by the Universities Entrance Board declared: (1) entry to the university should continue to be liberal: that is, the opportunity to take advantage of university study should continue to be readily available for those capable of it; and (2) entry to the university should continue to be flexible: that is, there should remain more than one way to gain admission to the university. The country faces a problem, however, in providing sufficient facilities, particularly in certain universities, to accommodate all eligible students.

Auckland University is already at the point of discussing selective admissions because its current size cannot meet the continuing demand for more student places. The decision is an agonizing one, not only for a particular institution, but for the system as a whole, since selectivity is foreign to the principle of free access. Moreover, if selective admissions were practiced by certain of the universities and not by others, it would pose a series of legal and political problems.

THE TECHNICAL INSTITUTES

Important as the universities are in the New Zealand scene, they are perhaps less dramatic examples of the extension of educational opportunity than the technical institutes. These are nationally supported postsecondary schools authorized by the 1964 Education Act to offer postsecondary training under the control of the Department of Technical Education for the New Zealand Department of Education. Of the twelve institutes now in operation, all but two are regional in character. In addition, there are two national institutes, located in the Wellington area. One, Central Technical Institute, not only serves local demands, but offers training in those fields for which only one program is needed to meet the demands of the country. The other, Technical Correspondence Institute, offers a wide variety of courses through external study. The remaining ten institutes serve local regional needs.

Basically, the program for training technicians and professional workers is a part-time one, based on the requirement that a person have three years of suitable work experience before he can be qualified and certified by the Technicians Certification Authority of New Zealand. Work may be pursued either toward a three-year certificate as a technician in a variety of fields or a five-year certificate with a wide variety of options. The first two years of the program are based on meeting certain subject requirements at the upper secondary level. Students who have passed the School Certificate Exam or the University Entrance Exam may

move directly into the technician's program at the corresponding level. In reality, then, the specialized work-study program begins with the seventh form and, in the case of the five-year certificate program, continues for three years beyond the secondary school. Some of the larger institutes also offer work that leads to a diploma in a number of professional fields, and certain of the institutes are beginning to move specifically into the preparation of paramedical workers.

The magnitude of the program can easily be seen if one looks at the enrollment figures. In 1969 nearly 16,000 students took part in the various technical and professional programs. The attitude toward the institutes throughout the entire country seems to be highly favorable, and their role as an important segment of tertiary education seems well established.

With the rapid expansion of training in engineering and other technical areas, it is to be expected that questions of coordination between the universities and the technical colleges would arise. Indeed, the problem has been recognized to the extent that the New Zealand Advisory Council on Educational Planning appointed a Working Party in 1969, which was mandated to review the relationships between universities and technical institutes in a number of areas—course coordination, cross-crediting, further development of student counseling services, and systems and methods of communication between the universities and the technical institutes.

As in several other countries, there has been considerable discussion recently about the desirability of separating the college-preparatory year (the seventh form of the New Zealand system) from local high schools and placing it in a limited number of separate institutions, perhaps to be called junior colleges. Whether such institutions would be primarily preparatory in nature or also offer work in certain vocational areas remains an unresolved

question. If they were to become comprehensive, it would be necessary to define their relationship to the technical institutes.



CANADA

The geographical, demographic, and political characteristics of Canada give rise to great differences within it as far as provisions for education are concerned. Its vast size and uneven population density naturally occasion some variation, but the effect of the political structure is even greater. The several provinces possess strong constitutional powers with respect to education, and each has developed its unique educational system at all levels. Moreover, the influence of the dominant French culture in several of the provinces, particularly in Quebec, makes this region a special case.

Undoubtedly, the most notable general move toward increasing opportunity is the recent development of the non-university sector. A wide array of institutes, schools, and colleges has evolved in the provinces over the last few years, varying greatly in number and nature. In Western Canada, particularly in British Columbia, the prototype of the American community college has taken hold, and now there are more than a dozen of these and similar institutions which provide both technical and university transfer programs.

In Ontario, on the other hand, where a number of technical colleges previously existed, the provincial government in 1965 moved to establish a system of colleges of applied arts and technology (CAATs). These are two-year institutions devoted exclusively to the preparation of students for employment. Some 26 CAATs, together with a half dozen limited purpose institutes, presently comprise the two-year system in Ontario, and enrollment is high in many of them.

In Quebec, still another form of a non-university institution

has been established, the "Colleges D'Enseignement General Et Professionel" (CEGEP). These colleges admit *all* students who enter postsecondary education after completing their secondary schooling. They offer two types of programs: 1) two years of general pre-university work which qualifies students to enter a university, or 2) three years of vocational education.

This novel pattern, of a funnel through which all secondary school graduates continuing their education would pass either on their way to advanced work or into employment, was only established in 1967 and thus has not had time to be evaluated effectively. In 1971, there were 38 CEGEPs, with a total enrollment of some 75,000 students, half of whom were enrolled in vocational programs. According to the plan, the CEGEPs were expected to enroll a larger proportion of vocational than transfer students, thus attempting to meet Quebec's manpower needs while providing opportunities for many students whose qualifications and interests would not lead them to eventual university education. In fact, the goal has been to increase the number of vocational students in CEGEPs to 70 percent.

Thus in both Quebec and Ontario—heavily populated areas of Canada—the primary move during the 1960s was to establish new "short cycle" institutions that would strongly emphasize technical training. (As reported, the CAATs in Ontario exist exclusively for this purpose.) Unfortunately, recent adverse economic and employment conditions in Canada have created problems in placing graduates of specialized training programs. As is so often the case, the novelty of the programs for both actual and potential students and employers has necessitated considerable effort to inform both groups about them. It has also been necessary to establish mechanisms for cooperation among various governmental agencies, employer groups, and the institutions themselves in order to increase the prestige of the programs and to best fit the curricula to felt social needs.

Statements made by the Commission on Postsecondary Education in Ontario quite lucidly reflect current thinking concerning desirable directions for postsecondary education in Canada. Certain of the ideas presented in this commission's report (1972) are repeated here as an efficient means of revealing how yet another public agency is thinking about what appears to be a worldwide concern.

In its section entitled, "The Prospects for Change," the commission report emphasizes the need for alternative approaches to postsecondary education. Many of the ideas in this section are germane to the current concern in the United States about such matters as alternatives to conventional four-year degree programs, the timing of a person's advanced education, and other factors which argue for "nontraditional education." Among the statements made by the commission, the following seem especially significant in delineating a climate for flexibility:

... the Commission is in favour of extending opportunities for postsecondary education in Ontario... However, we consider the sequential nature of school attendance to be undesirable and unnecessary. Therefore, we have to suggest viable alternatives to postsecondary education. These alternatives will have to be provided by society as a whole—by government through its policies, by business and industry through employment practices, by organized labour in its attitudes toward conditions of employment, and by professional organizations through their rules governing entry into their ranks. The Commission is convinced that all these segments of our society will co-operate in these endeavours when they realize that they can only benefit from them...

The increased integration of education with life and work has many implications. Apart from such obvious moves as providing more work-study programs and shorter, more intensive courses, we must also create opportunities for substituting work experience for

educational credits and for allowing sub-professionals to use their experience as building blocks for upgrading in general, it should be our aim to break down the often artificial barrier that now exists between "education" and "life" or "work."

... Integration of living and learning can be achieved only when all the barriers to accessibility are removed, when educational services are provided to all citizens when they need them, and when citizens know they can obtain the education they want at any time throughout their lives [pp. 16-17].

Among the commission's 72 recommendations, the first 14 deal with implementing the concept of integrating living and learning. These recommendations include government support of youth work opportunities and part-time work for students; conditional admission to postsecondary institutions without formal requirements of all students who have not been in full-time regular education for two years; public subsidies for voluntary organizations engaged in adult education; and encouraging the return of workers to school by facilitating the withholding or saving of wages earmarked for that purpose. Especially noteworthy is the emphasis placed on society's role in helping to achieve alternative educational forms, since this approach recognizes the public and social dimensions of change without leaving the entire responsibility—both intellectual and financial—upon educational institutions alone.

Other recommendations in the report are equally significant. For example, 30 proposals relate to improving access to postsecondary education. One such suggestion is that an "open sector" of education and a "University of Ontario" be established 1) to provide postsecondary educational services to the people of Ontario by means of television, radio, and correspondence; 2) to offer testing and evaluation services; 3) to award both formally earned degrees and diplomas without formal course requirements; and 4) to cooperate with other cultural and educational institutions in making the educational programs more broadly available.

One recommendation leading to a reduction of time students spend in school is that the present Grade 13 standard of attainment should be available in 12 years, allowing entry into all forms of postsecondary education after that time. Several other recommendations seek to alleviate the rigidities in the educational system and to facilitate the flow of students among institutions and programs. The remaining recommendations of the commission do not require special mention here, although—as expected—they are attempts to reorient the structure and finance of postsecondary education in line with the substantive proposals for expanded opportunity and flexibility.

4

The Quest in Latin America: Chile



Higher education in Latin American countries is comprised primarily of traditional universities, both private and national, which are only moderately open. There has been no move toward a high degree of democratization, although in recent years several countries (such as Peru, Colombia and Venezuela) have considered establishing technical and junior colleges and other new types of postsecondary institutions, and a number of countries, including Brazil and Argentina, have increasingly emphasized work-study programs. One hears considerable discussion throughout Latin America about educational reform and the possibility of extending education to groups hitherto underrepresented in the college population. Such a move is undoubtedly in the beginning state, but it probably will proceed slowly and cautiously, according to the political temper of the various countries.

Because there is no detailed study of the Latin American situation, comments here are limited to Chile, where an interesting example of decentralization at the university level exists. This is a move by the University of Chile to establish a series of Regional Colleges.

Late in the 1950s, certain far-sighted leaders in the university began to advocate that the structure of the university be changed to accommodate more of the increasing number of secondary school graduates. They contended that instead of perpetuating further education for the elite, the university should respect the democratic ideal that all youth have the right to obtain an education so far as their capacities permit and in accord with their individual interests and aptitudes. At about the same time, there were increasing pressures from a number of the outlying provinces and cities for some type of local college or university.

The University of Chile itself operated in only two major Chilean cities, and some form of decentralization was necessary to correct the inequities that inevitably exist when a national university is located far from the homes of secondary school graduates. Accordingly, the university moved to establish Regional Colleges in the provinces. As originally proposed, these colleges were to have an intermediate function between secondary and higher education. They were to extend new opportunities for education to students in middle- and low-income families, provide guidance and orientation for students, offer intermediate-level career programs, facilitate transfer to the university, and serve as a cultural and educational center for the province. The first Regional College was established in Temuco in 1960; the second in La Serena in 1961; and six additional ones during the decade of the 1960s.

Almost immediately it was evident that the colleges were performing a democratizing role. Not only did they make education more readily available to young people, and to some extent to adults, but from the outset their student body included a far greater percentage of people from the working classes than was true of the university in Santiago. By 1964, the three Regional Colleges then in existence had an enrollment of over 1,300 students. In 1970, the combined enrollment in the eight Regional Colleges was more than 10,000 students or nearly 30 percent of total enrollment of the University of Chile (Feliz, 1972). Naturally, those colleges in the

more heavily populated provinces and cities, including those in Antofagasta, La Serena, Talca, and Temuco, accounted for the major share of the Regional College enrollments.

Originally, admissions standards in the Regional Colleges were somewhat more liberal than at Santiago, but since 1968 admission throughout the university system has been based on the results of aptitude and achievement tests. The curriculum of the Regional Colleges is highly diversified and offers training in 20 or more intermediate-level professional *carreras*. The curriculum provides for both short- and long-term career preparation and, in fact, the establishment of the short-term career programs was a decisive innovation in both Chile and Latin America generally. The colleges emphasize counseling and guidance to assist students in determining the particular career they should choose. The Regional Colleges have demonstrated that, despite the difficulties inherent in veering from the established way of doing things, much can be done in occupational education within a postsecondary program of three years.

So unique was the use made in Chile of Regional Colleges as a means of extending educational opportunity to new populations that early in their history the colleges attracted the attention of educators from many countries. The Ford Foundation, in taking note of the colleges' potential, made funds available to them for several years to prepare teachers and counselors both in Chile and in the United States; to purchase laboratory equipment and library resources; and to obtain technical assistance through the University of California at Berkeley. Also, the Inter-American Development Bank made a substantial loan for campus development to the University of Chile, which has enabled a number of the colleges to be housed in excellent facilities.

The Regional Colleges have been a marked innovation in Chile, and they have gone far toward expanding educational opportunity. As is so often true, however, their development over the years has not conformed to the pattern originally expected of

them. Not only were they caught in the midst of national and university political turmoil during the latter half of the last decade, but they were also subjected to the evolutionary process of institutions in general. The political crisis at times brought a virtual halt to university operations and made internal decisionmaking exceedingly difficult. Undoubtedly, the political ferment accounted for changes in the colleges, although many of them would probably have taken place anyway as a result of personal or institutional ambitions for autonomy.

The changes are several. A name change took place in 1965 when the Regional Colleges were designated as University Centers. This resolution was soon followed by one providing that the Centers be responsible directly to the rector of the university and that the power of the university coordinating agency for the Centers be modified—a first step toward autonomy. Finally, following a long period of turbulence in 1968 and 1969, the entire university system was reorganized, and the Centers, along with the university at Santiago, became regular campuses of the university with a complex system of university government through elected representatives from the several campuses.

As might be expected, the evolution of the Centers to full-fledged campuses of the university system has led to a tendency for them to “grow up” in the usual institutional sense, and to become more alike than different from the Santiago operation. This has resulted in more four-year *carreras*. However, despite many problems which the system faces in meeting regional needs, developing adequate staff, and facilitating better student retention and achievement, the campuses continue as effective instruments of service. Following an extensive examination of them, Feliz (1972) summarized the situation as follows:

The Regional Centers have continued to carry out the other functions which were ascribed to them at the beginning: providing academic experience in general education and the basic sciences within *carreras*; giving

guidance services to students; and contributing to the cultural and developmental activities of communities and regions. Studies in general education and the sciences constitute the equivalent of a semester or more of *carreras* in the Centers. Exceptions are the parallel university plans of study over which the Centers in fact had no control [p. 352].

The recent political uncertainty in Chile makes it impossible to predict the future of the regional campuses, but one can assume that once local institutions are established, they will be maintained to the extent that the financial ability of the country permits. Despite the tendency for regional institutions to become more like standard universities, they will undoubtedly continue as democratizing agencies in the country. Their location in the provinces means that they serve people who would not be likely to continue their education if they had to go to Santiago. Moreover, they have continued to offer two- and three-year occupational programs, and in other ways to serve students who will not qualify for the standard college degree. On balance, the establishment of regional campuses in Chile can unquestionably be regarded as a worthwhile, innovative step.

5

The Quest in Asia and the Pacific



The Pacific scene is both interesting and complex, including as it does countries at various stages of economic and social development. The vast social disparities not only result in great variations in the countries' ability to support postsecondary education, but also in major differences in those manpower needs which require the training and education that can be provided by new institutions.

There are also differences in the social demand for education beyond secondary school, since the more underdeveloped the country, the lower the degree of universal education at the elementary and secondary levels, and the fewer people with competence and certification who can move into postsecondary institutions. The worldwide phenomenon of increasing aspirations, however, leads to a desire on the part of a higher percentage of those qualified to further their education. And there is an increasing restlessness in many Asian countries about the prevailing unrealistic requirements for admission to college which has encouraged a reconsideration of the total postsecondary educational structure.

Naturally, there is considerable variation too among the various regions of Asia and the Pacific. In the Orient and most of

Southeast Asia, the dominant development is in the growth of new mid-level institutions which emphasize practical training; in both Japan and Thailand, new forms of "open" universities have appeared; but in India, officials are trying to cope with over-enrollments in university-level liberal arts curricula.



JAPAN

Much attention has been focused on Japan's system of higher education. The universities have been characterized as highly selective, and the examination system as a means of admission has been regarded as competitive to the point of frustration. While there is little evidence of probable change in the universities soon, several developments in the country do show promise of some flexibility in response to the internal demand for new postsecondary outlets.

The most signal change is the work of the Central Council for Education, which since 1967 has been concerned with all aspects of education in Japan. The Council has emphasized the need for basic guidelines for the reform of higher education and the necessity to diversify higher education in Japan, to provide for easy transfer from one institution or curriculum to another, and to make it possible for people to receive education, including reeducation, at any time and place necessary. It is too early to determine how and to what degree these goals are to be implemented, but that they have been articulated as national objectives suggests that some of the long existent barriers will eventually be broken down.

TECHNICAL COLLEGES AND JUNIOR COLLEGES

Another noteworthy development is the emergence of a system of technical colleges which is built on top of the *lower*

secondary school. (In Japan education is compulsory through the six-year primary school and a three-year lower secondary or junior high school. Students normally graduate from the latter at age 15 and then may choose either a three-year senior high school primarily to prepare for university entrance, a three-year technical high school, a junior college, or a five-year technical college.) The five-year technical college thus combines in an integrated fashion the three-year upper secondary school and two years of advanced work. In some respects it resembles the concept of the 6-4-4 plan once occasionally found in the United States. The technical colleges came into being in the early 1960s as a result of an insistence on the part of employer groups that there was a serious national shortage of middle-level technicians. In fall 1971, 63 of these colleges spread rather uniformly over the country. By American standards these colleges are small; National Technical College of Tokyo, for example, currently enrolls only some 600 students. Yet in the ten years of their existence the colleges have graduated several thousand students who are reported to have found immediate employment.

Despite the promise of the technical colleges, and the enthusiasm with which they have generally been regarded, they have also generated certain concerns. In the first place, they are not "open door" institutions; admission is determined by the results of a written exam and an interview. At the outset, the ratio of applicants to places in the colleges was as high as 17:1, and while this ratio has declined markedly, officials at the National College of Tokyo reported that even now only about one-third of those who take the exam qualify for admission. It has also been reported that students must choose their curriculum while still in the lower secondary school, and that they cannot change options once they are admitted.

One gains the impression that the technical colleges in Japan play an important role in postsecondary education, although they constitute a minor part of the total system. Moreover, the almost inevitable question of their status appears to be raising its ugly head, and efforts are under way to give them a transfer function. Because it

is difficult for their graduates to move into the university system, the Ministry of Education has begun to plan for a system of graduate schools of technology to accommodate transfer students from the technical colleges (and undoubtedly from other sources). But even if this plan is effected, it is probable that only one such advanced school will be established initially.

Japan has a related manpower problem also faced by many other countries. The growing supply of graduates from science and technology departments of universities may result in the possible employment of many highly trained graduates as low-level technicians. If this situation materializes, not only will the role of the technical colleges be questioned, but the social feasibility of filling lower-level manpower needs by people over-qualified for such work will also come under scrutiny. Moreover, unless the university system itself is more open to the masses than it now is, there remains the further question of access to postsecondary education for those young people not qualifying for university admission.

A third interesting feature of education in Japan is its junior college system, which now embraces nearly 500 schools with an enrollment of over 260,000 students, of whom 80 percent are women. Eighty-five percent of these institutions are private and bound together by an efficient and powerful organization known as the Association of Private Junior Colleges of Japan. The junior colleges tend to recruit women who plan to marry soon and/or who expect to engage in certain types of employment such as kindergarten or day-nursery work. The Central Council for Education recently estimated that by 1980 the ratio of university entrants to junior college entrants will be 2:1, which delineates a fairly important role for these institutions. It is incorrect, however, to compare junior colleges in Japan, the majority of which have a limited purpose and are privately controlled, with those in the United States, nearly 80 percent of which are comprehensive and supported and controlled by public agencies.

THE UNIVERSITY OF THE AIR

Perhaps the most publicized current venture in Japanese higher education is its University of the Air. As a matter of fact, however, the publicity elsewhere about the program seems to exceed its actual development in Japan. The idea for such a university was initiated by a conference which was jointly organized by the Ministry of Education and the Ministry of Postsecondary and Telecommunication. After the conference, a Preparatory Study Committee (1970) reported that since a number of conditions were still indefinite, it was prevented from reaching conclusions on "such problems as the social need for the University of the Air, its legal status, the manner of radio and television broadcasting, and the method of financing [p. 1]."

Nonetheless, the committee set forth a number of propositions and recommendations for further study covering purpose, legal character, admissions requirements, instructional methods, use of other institutions, graduation requirements, and other matters. Inherent in the committee's concept of such a university was that it be "open" in the sense that it would not only accommodate anyone who has completed secondary education, but would also give a second chance to those who did not meet such a requirement. Instruction would be provided chiefly through broadcasting, supplemented by "institutional schooling" with at least one learning center in every prefecture [state] to which a certain number of full-time faculty would be assigned. The existing universities would extend active cooperation in the form of faculty, facilities, etc., to the newly established center. Credits would be certificated at the end of each semester through a special examination, a total of 124 credits would be required for a degree, and at least four years would be required for its completion.

It is apparent, however, that many problems—certain of them political—must be resolved before the University of the Air really exists in Japan. An experimental program is indeed currently under

way, as has been widely publicized, but this is by a provisional agreement between the Ministry of Education and the NHK (Japan Broadcasting Corporation). The Ministry insists that the new university be created by the Diet and under government supervision. But the NHK, which has conducted a TV and home study program for secondary students, appears to have its own proprietary interests in the university program. As of spring 1972, the controversy between the government and the broadcasting company was reported as unsettled.

Should the question of jurisdiction be resolved, and a new university actually created, it is likely that the result would be a great increase in the number of people who might be educated in Japan. A critical and unknown variable, however, is how credits and degrees from such a university would be regarded by employers and others in a society that has placed such a high premium on the prestigious universities. But perhaps the move, if it is consummated, will simply bear additional witness to the fact that certain traditions cannot continue indefinitely, especially when they operate to inhibit people's best hopes and aspirations.

HONG KONG



In certain countries in Southeast Asia, the pressure for new types of mid-level institutions is of a different order from that found in Japan. In Hong Kong, for example, there has over the last three years been increasing concern about the development of "high-level" vocational education. A technical college offering a wide variety of curricula leading to diplomas and certificates for technologists or technicians has operated for some 20 years. Recently, the government appointed a Polytechnic Planning Committee to advise

on how to provide facilities for higher vocational education by 1974 that will ultimately accommodate 4,000 full-time and 20,000 part-time students under the control of a Polytechnic Board. It was originally assumed that the postsecondary part of the present technical college would be separated physically from the lower vocational educational offerings and that the postsecondary offerings would accommodate 2,000 full-time and some 10,500 part-time students. Nevertheless, an additional institution was deemed necessary and the plan intended that the two would be combined under the name of a polytechnic institute. In February 1972, however, the Hong Kong government accepted the committee's report which provides that the newly established polytechnic will have its own board of governors and that it will be subject to the same administrative and financial procedures as the universities in Hong Kong. It will receive funds through the University Grants Committee which will be renamed the "Universities and Polytechnics Grants Committee."

The impression is that the Planning Committee has had some difficulty in identifying the exact role of the new institution in the polytechnic system: Should it concentrate on the preparation of mid-level technicians, or should it aim for degree or graduate work in the field of technology? A new chief administrator from England was recently employed to direct the overall operation, and it is too early to discern the program's eventual direction. At the time the government established the polytechnic, a spokesman reported "that the polytechnic is to become a third university. Although it will complement the two universities by providing technical education to a degree level, by no means will all its courses be at this level."

The most important point for this discussion, however, is the fact that the industrial and educational leaders of Hong Kong see the further development of technical education as the principal need at the postsecondary level. No other types of institutions are under consideration. Hong Kong's educational and manpower needs presum-

ably will be met by the polytechnic system together with the two existing universities.



SINGAPORE

Singapore, whose port is said to be fourth largest in the world, is the focal point of air and sea routes for Southeast Asia, and the principal commercial center of the area. Even though it is an island of only some 225 square miles, it has a population of some 2,000,000 people.

The most important feature of postsecondary education in Singapore is the unusual development of vocational training at the technician level. Vocational education is even a strong feature in the lower secondary schools, in which all of the boys and some 50 percent of the girls are required to participate in a government-run workshop experience. As students move into the upper secondary school, they may go either into the academic or technical stream, the selection being based on aptitude tests, performance in the previous workshop activities, educational preference, and choices made by students and parents in a counseling situation. Obviously, those going into the academic stream may prepare for university work, although they may also join those who are moving into the postsecondary technical training institutions. There are three schools in this latter category: Singapore Polytechnic, Singapore Technical Institute, the Ngee Ann Technical College. Though comparable in many ways, these three institutions vary in their emphasis on theory and techniques; as a group they provide an unusual opportunity for young people to select the type of occupational training that best meets their needs.

Some idea of the magnitude of the program is revealed by the fact that up to 1971 Polytechnic alone had produced some 1,800 graduate technicians, and that by 1973 the figure is expected to have

risen to 3,600. Ngee Ann Technical College is expected to enroll over 1,600 students in October 1972.

It is interesting to note that up until 1969 Polytechnic offered advanced professional work that led to a degree conferred by the University of Singapore. At one time a plan was under consideration to make Polytechnic into a technical university somewhat along the lines of the polytechnics in the United Kingdom. The final decision, however, was to transfer the advanced professional work from Polytechnic to the University of Singapore, thus limiting the emphasis of Polytechnic on training of technicians.

Another feature that characterizes education in Singapore is the alternative route by which out-of-school youth may obtain training in vocational schools outside the system or through the adult education program. Many of the programs are of a work-study, "sandwich variety." Students in such programs who are highly motivated and do well may move into the system and up through the regular vocational training program, even at the postsecondary level.

Thus, in Singapore, the significant feature of postsecondary education, as reflected in new institutions, is technical training with variety and purpose. These recently established institutions are specialized, and for the moment at least they make no pretense of comprehensiveness. But they fill a social need, since they provide an outlet for the majority of the young people in the country who aspire to continue their education.

At the present time, Singapore has one junior college and is involved in the process of establishing others. The new postsecondary institutions, however, primarily provide the first year of university work (preparatory year), and are being established to relieve the already crowded high schools from the responsibility of offering the preparatory year. When asked whether there was any possibility of

these institutions becoming comprehensive, the responses were clearly in the negative.



INDIA

As is true of most social problems in India, those pertaining to education are almost too many and too complex to comprehend. Postsecondary education there has traditionally meant university education. The first Indian universities were established in the middle of the last century and modeled after the University of London as bodies to examine and confer degrees upon students who were taught in affiliated colleges. Since that time, expansion of the system has created many problems of size and scale. In 1970 India had 70 universities, 52 of which had been established since 1947, the year of Indian independence. Approximately 175 affiliated colleges have been established each year since 1961, and they now total more than 3,000. So rapid has been their growth that the number of these institutions in 1970 was ten times what it had been in 1947 and doubled since 1965. College enrollment itself has increased approximately 13 percent each year.

In addition to the universities and their affiliated colleges, the government has established several types of technical training institutions. At the highest level are five Institutes of Technology which operate under the Board of Technological Education, and function, in effect, at the university level. There is a second group of nearly 300 technical institutes, known as polytechnics. They offer varying types of two-year and three-year programs for the training of technicians. And there are in addition, numerous industrial training institutes under the Ministry of Labor which prepare people at lower levels to meet local manpower needs. Certain states also have established a number of intermediate-type colleges.

The growth of institutions is paralleled by expanding enrollments and a relentless push in the direction of college and university education. Of the nearly 3,000,000 students at the higher education level, 85 percent are in affiliated colleges. Yet these gross statistics conceal two facts that are of serious concern to Indian educators. One is the pervasive belief of most young people coming out of the secondary schools that a college degree—particularly one in liberal arts—is the only path to employment and status, a belief that persists despite the overwhelming evidence that the Indian society now absorbs only a small proportion of these graduates. It is difficult to assess the degree to which higher education has been “oversold,” or to suggest means by which Indian young people can be helped to gain a more realistic appraisal of how much their liberal arts courses will benefit them in the job market. The second disturbing fact is that so many of the affiliated colleges are very small—some enrolling under 100 and many fewer than 300 students—with the quality of teachers and instruction in many of the institutions adjudged to be far below acceptable standards.

An overriding, though not unexpected problem in India, is the imbalance in both emphasis and support between lower and higher education. Many people lament the political influence that has led to government support of higher education at the expense of primary and secondary education. While remedies for this disparity are frequently proposed, they are not always put into practice. The popular concern about this imbalance is well expressed in the editorial entitled “Education in the Doldrums,” which appeared in *The Sunday Statesman* (Delhi and Calcutta) in October 1971.

The comprehensive plan for primary education now being prepared by the Centre will, it is hoped, strengthen the foundations of a top-heavy system. . .

. . . Primary schools suffer from an acute shortage of teachers and simple teaching aids; salaries are abysmally low by even Indian standards; classes are grossly

overcrowded; and, according to a recent survey, textbooks are not only in short supply, but also bristle with inaccuracies. It is hardly surprising that India's universities, which are forced to admit thousands of unqualified young men, should be unable to insist on any academic or disciplinary standards. Nor is the situation likely to improve as the number of universities goes up to 100 by 1986 without a commensurate development of schools; 1986 was originally the target year for universal free and compulsory education for all children up to the age of 14, but this objective will not be realized until 2000 A.D.

A report by an important Indian group known as the Education Commission 1964-66 identified numerous problems in Indian education and suggested many reforms at all levels, among them being an increasing emphasis on vocational training at the secondary level. There is general consensus that very few of the recommendations have been implemented, and one of the criticisms most frequently heard is that despite a general recognition of the need for reform, there is no systematic planning effort to accomplish the task.

It is generally recognized, however, that reform in education is not easy. The social climate and the state of the economy lie outside the control of educational groups; thus control over conditions for reform lies in part with other agencies. Moreover, each state has primary responsibility for its own educational institutions, and as in so many other countries, the 16 Indian states often choose to ignore recommendations made by the central government or professional bodies.

Amid all the other problems of higher education one hears about in India there is a steady complaint about the highly skewed manner in which students distribute themselves among educational programs. The traditionally strong emphasis on liberal arts and the humanities has been referred to, and now, despite the previously successful move to interest more students in technology, a current shortage of jobs in engineering and related fields has resulted in an

alarming small number of enrollments in engineering courses. In fact, many students who had planned engineering careers have shifted to medicine, with the result that some forecasters predict an early oversupply of doctors in the country.

Within the context of this complex educational situation in India, what is to be said about the quest for educational opportunity? The facts obviously confirm a *prima facie* demand albeit the demand is in many ways unrealistic, and currently at least cannot be met. Some efforts are now being directed, however, toward creating a greater degree of realism. Various interesting movements are under way to improve education below the postsecondary level for the masses. These include a number of different kinds of community development programs, as well as pilot programs to improve educational development. The state of Maharashtra and the Ford Foundation, for example, are cooperating on four component projects relating to 1) improvement of educational planning, 2) occupational education and training, 3) teacher education for rural development, and 4) a reorientation of business education.

At higher educational levels, there are some beginnings in offering education by correspondence, particularly at Delhi University. The establishment of university centers and libraries in outlying areas is another new and noteworthy goal, and has already begun. There is, in addition, some reported evidence of shifting attitudes in India toward lower-level technical training, and in a few states there is talk—but as yet little action—about setting up institutions based on a junior college model. A variety of efforts are currently being made to improve and integrate the management of institutions in ways that will undoubtedly contribute to greater realism in planning enrollments and programs. The overall situation, however, is as mixed and unclear as one might expect in a nation as

newly independent, as economically disadvantaged, and as complex as India.



THAILAND

Like many developing countries, the direction of higher education in Thailand is greatly affected by the limited foundation on which such education has to build. Compulsory education exists only through the fourth grade; in 1966, there were 944,000 students enrolled in this grade (869,000 in public and 75,000 in private schools). The total enrollment dropped to 300,000 in the fifth grade, and from there on the pyramid narrowed at each successive grade level so that by the 12th grade only 52,000 students were in school. Of this number, 39,200 were in public schools, of whom 19,000 were in academic schools, 7,000 in teacher training programs, and 13,000 in vocational and technical schools.

The implications for higher education of this tapering off and the very small number of young people completing secondary schools are quite serious. Not only is the number of candidates for the conventional higher education system severely limited, but the selective nature of the admissions pattern of the university system still further limits the possibility of meeting high-level manpower needs for the nation.

The Ministry of Education, which is responsible for secondary education, vocational education, adult education, and teacher training (education through the first seven grades is under the Ministry of the Interior, while universities are under the Prime Minister's office), has endeavored to develop a sound program of vocational education, in which he has been aided by several foreign agencies. While the greatest effort is put into the secondary schools, the system also provides technical institutes for students who have completed secondary school training in either the vocational or

academic system. The Department of Vocational Education of the Ministry reports that in the ten technical institutes in existence in 1970-71, more than 11,000 students were enrolled in postsecondary programs for the training of technicians. Of these, 76 percent were men and 24 percent women. Admission to these schools is based on the results of an entrance examination given by each institution, and only about a fourth of the applicants who apply are admitted.

In 1971 a move was started to combine three of the technical institutes into a single institution under a common administration. This new institution would presumably play a major role in preparing teachers for lower vocational schools—a problem of paramount importance in Thailand.

TECHNICAL TRAINING AND THE ECONOMY

Some serious questions arise in a situation like the one found in Thailand. As are most developing countries, it is highly dependent upon agriculture, yet it has experienced considerable recent economic growth and comparative political stability. Its one large urban area, Bangkok, with a population of over 4,000,000, presents problems of population concentration which profoundly affect education. The second National Economic and Social Development Plan (1967) estimated that the most serious future manpower shortage would be in the areas of professional and technical personnel. Thus it would seem that technical education should be of primary concern to the government. Within the country, however, one hears two different and contradictory views. One is that industrial development is not yet at the point where it can absorb an unlimited number of high-level technicians, and that therefore an emphasis on expanding the postsecondary vocational system is both premature and misplaced. The opposing view is that the postsecondary vocational program as it now exists cannot accommodate all the young people who aspire to enter it, and must

therefore be expanded. Across both arguments runs a crucial question about the proportion of the total educational expenditure that should go to postsecondary education rather than to the lower schools. The low level of compulsory education has already prompted the Ministry to increase its efforts to provide schools and teachers beyond the fourth grade. Also, Thailand has developed an adult education program of considerable uniqueness. Its preeminent features are efforts to achieve functional literacy, provide opportunity, through newspaper centers in the villages, for people to retain at least the level of literacy they achieved in the first four grades, provide continuing education, and develop leadership in promising rural youth between the ages of fifteen and twenty-five.

The situation in Thailand embodies a paradox of manpower training: There is a presumed shortage of technical manpower, yet because of the relatively small number of secondary school graduates, few people are qualified to enter technical training institutions. This situation led Harris (1970) of the University of Michigan to suggest that the Thai government, even at the possible cost of reducing enrollments in the lower primary grades, improve the intake and survival rate into the upper secondary level to the extent that it be trebled over what it was in 1967. Harris' thesis was undoubtedly based in part on the earlier findings of Harbison and Myers (1964, 1965) who found that there was an important relationship between high-level manpower and the scope of economic development.

At present, the most that can be said about middle-manpower development in Thailand is that it is recognized as an important social and economic issue. Additional institutions are becoming available, and the opportunity to prepare for work at this higher level probably accommodates all those who are interested and capable of taking advantage of it. The basic problem, of course, lies in the lower levels of education.

POSTSECONDARY EDUCATION—WITH SOME DIFFERENCES

One can scarcely discuss postsecondary education in Thailand without at least touching on certain developments that differ somewhat from those generally dealt with in this monograph. Thailand is one of the Southeast Asian Treaty countries, and consequently is both a participant and a benefactor in numerous joint efforts, some of which are assisted by foreign funding, to improve education and planning at all levels of education. Some of the agencies involved are Seameo, a chartered organization of seven Southeast Asian countries, UNESCO, and the Regional Institute of Higher Education and Development based in Singapore.

As in the other countries of the region, Thailand is making special efforts at both lower and higher levels of education. In addition to the emphasis on adult education, another noteworthy project is one which relies upon the assistance of mobile trade training units to train semi-skilled adults and out-of-school youth in basic vocational skills. At the higher level, several programs in management are available through the National Institute for Development Administration, and the well-known Asian Institute for Technology located in Bangkok serves as a regional institute for graduate studies in engineering.

At the university level, the major development in Thailand is the recent establishment of an Open University. The idea for such an institution, named Ramkhamhaeng University, first came from a group of individuals in Parliament in 1970. Reportedly those behind the move were under pressure to provide facilities for students who aspired to enter a university, but were not eligible for admission to existing institutions. Action on the idea was rapid, and the new university began operations in 1971.

The government located the university, temporarily at least, ten miles out of Bangkok on a site previously used as a trade fair. Existing buildings were modified, several new ones were erected, and in many ways the site became an "instant" campus. The university

teaches primarily by correspondence, with texts and other written materials sold and distributed to students living in all parts of the country. Attendance at lectures is encouraged, however, and many students living in Bangkok, as well as some from afar who arrange to reside in Bangkok during the school year, do attend. Instruction on campus is facilitated by the use of an elaborate system of closed television in large lecture halls.

First-year enrollment was reported to be in the neighborhood of 40,000, with some 10,000 students attending classes on campus. A complex examination system administered at the end of each term is used to determine the award of credit. The examination procedure of the university has come under considerable criticism because of its dependence upon objective tests and because, in lieu of setting up testing centers over the country, it requires all provincial students to be tested in Bangkok, at considerable personal travel expense.

As would be expected, the Open University has from the beginning been the target of considerable skepticism and criticism, particularly on the part of those with conventional views of universities. Early in January 1972, the *Bangkok Post* charged that Ramkhamhaeng might be a knowledge market rather than a university and urged that its policy and administrative methods be revised.

It is too early to estimate what the future of Thailand's Open University will be. It does appear to be still another example of an effort to respond to the educational needs of people who want an opportunity to learn. Whether it will make a substantial contribution to the manpower and social needs of a developing country is, of course, still an uncertain question. The quest for opportunity manifests itself in Thailand, and the Open University was born and still survives because of that quest.

6



Conclusion: Universal Issues

The phenomenon of demand for higher education is not new. The number of students entering college in 1960, as Bowles (1963) has shown, was almost double the number that entered in 1950. Yet the worldwide social changes of the 1960s, particularly the various forms of the civil rights movement, accelerated the general belief that those individuals who—by one index or another—appear to be qualified for an advanced education must be assured an opportunity to gain one. As even this brief survey of nations demonstrates, the demand for higher education now means expanded opportunities for a greater diversity of students in such proportions that most countries can be placed at some intermediate point along the continuum from elite to mass education. To be sure, very few countries have actually reached the terminus of mass education (even allowing for competing definitions of “mass”), but throughout the world problems and ways of accommodation are changing markedly, and society faces many critical issues during the difficult interval of transition.

As elitist higher education is being abandoned under the pressure of sheer numbers of students and socioeconomic changes, the requisite structures, curricula, and organizational arrangements of mass education cannot always be identified, much less developed. The major challenge to policy-planning, as the OECD (1971) study reminds us, is “to ensure that this transition takes place smoothly.”

Coombs (1970) has given us a thoughtful and provocative description of this fluid situation:

...It is true that national educational systems have always seemed tied to a life of crisis. Each has periodically known a shortage of funds, teachers, classrooms, teaching materials—a shortage of everything except students. It is also true that these systems have usually managed somehow to overcome their chronic ills or else have learned to live with them. The present case, however, differs profoundly from what has been commonplace in the past. This is a *world* educational crisis—more subtle and less graphic than a 'food crisis' or a 'military crisis,' but no less weighted with dangerous potentialities.

Because of special conditions, the crisis varies in form and severity from one country to the next. But its inner lines of force appear in all nations alike, whether they are old or new, rich or poor, whether they have stable institutions or are struggling to build them in defiance of heavy odds [pp. 3-4].

Although Coombs' statement was made about educational systems generally, it pinpoints the problems of postsecondary education throughout the world.

THE FIVE COMMON ISSUES

While it is far beyond the limits of this discussion to deal in depth with the wide variety of problems in the various countries as they face the mounting pressures for higher education, five issues that appear to be common ones are the concern of this chapter. It is necessary, however, to recognize that common problems are experienced uniquely, since each country has characteristics peculiar to its social environment and degree of economic development which prevent problems from being reduced to a common denominator. These socioeconomic issues, too, are interrelated and, except for the convenience of discussion, are not easily separable into neat packages.

Choosing National Policies

In an ideal world, expressions of the demand for greater opportunity would be accompanied by a shift in the political value system and mass opinion that would underwrite legislative and fiscal support adequate to meet the newly felt needs. We do not, however, live in so perfect a place, and even if we were so blessed, several fateful choices would still immediately confront us. Which needs should be met first? How should scarce resources be allocated? In many cases, the problem is that nations debate these vital, but subsidiary questions without having first achieved a clear consensus about their policy objectives.

There are several reasons why such clarity is rare. In the interplay of national politics there seldom can be agreement on the purposes and relative importance of postsecondary education. Even if there were agreement at any given time, rapidly changing conditions result in shifting attitudes. Even in the United States, where mass higher education enjoys its greatest receptivity, traditional assumptions about the value of college attendance are now being questioned. Conflicting suggestions abound concerning how and when people should be educated, and how the cost of education should be met. Furthermore, the questions of who makes policy and of where power resides frequently receive uncertain answers, particularly in nations that vest considerable responsibility for education in state or provincial governments, yet distribute financial assistance from the "center" or the federal government.

Sometimes "policy" is enunciated primarily by recommendations emanating from major studies by government-created committees or commissions on higher education. The recommendations may receive the endorsement of government authorities and some of them may even be enacted into legislation. But if their implementation depends upon political subdivisions, many variations can be expected in how they will be interpreted and executed. Naturally, the problem is less acute in national systems

where all institutions of higher education are responsible to a central government, but even in such cases the educational agencies within government or the institutions themselves vary in their discharge of policy.

A particularly serious basic policy conflict in developing countries is the matter of deciding whether support should be given for expanding educational opportunities at lower or higher levels. What are the national cost-benefits accruing from each path? Are they comparable enough to make a decision possible? Decisions on this point are particularly difficult because policymakers are faced with philosophical considerations about the desirability of raising the literacy level and developing the capacity of the general population before improving opportunities for what perforce would be a more select population at the postsecondary level.

Normally, one consideration in formulating policy on this issue would be based on manpower needs. Here, however, the situation is confused by the specter of underemployed college graduates. On this point, Coombs (1970) again summarizes the point well:

... One (problem) is that while many more people want more education, they do not necessarily want the *kind* of education that under new circumstances is most likely to serve both their own future best interests and the best interests of national development. Most students naturally hope that education will help them get a good job in their developing society. But their job preferences are often dictated by a prestige-carrying hierarchy of jobs, set in the past, which does not fit the new hierarchy of manpower requirements bearing on economic growth. When incentive structure and the employment demands of the market place also reflect the old hierarchy of prestige, there is a serious disjunction between the nation's manpower needs and its actual manpower demands. Such a disjunction is usually a signal that the nation is not developing its available educated manpower in ways most conducive to development. Thus the student in choosing an academic

field, and the educational system in trying to change its student flows to match the requirements of national development, are both caught in the cross-tensions between the stated development goals of society and society's antidevelopment patterns of prestige and incentives. In a larger sense, therefore, the crisis in the foreground is not simply a crisis of education, but one that embraces the whole of society and the economy [pp. 7-8].

In an earlier study, Harbison and Myers (1964) sought to assess the quantitative indicators of human resources and economic development in countries at different stages of development (underdeveloped, partially developed, semi-advanced, and advanced). An important conclusion was that an index based on higher levels of education correlates more significantly with economic development than one based on the lowest level of education, and that there was a high correlation between the supply of high-level manpower (teachers, physicians, dentists, engineers and scientists) and indices of economic development.

Persuasive as these findings may seem, they must be tempered by awareness of the grave danger of educating populations at higher levels than will serve their countries' immediate or foreseeable manpower need. The ratio of people prepared as technicians to those prepared as professionals, for example, is an important policy which countries at all stages of development have difficulty in either monitoring or controlling.

Despite the pressure to expand postsecondary education, there is developing among the general populace in many countries, including India, as discussed earlier, a belief that primary and secondary education are now due for a larger share of educational support. Whether such a move will prove politically feasible is open to question, but even if the emphasis should be shifted in this direction, two countervailing forces will eventually become important. Additional efforts at the lower educational levels will require an expanded professional staff, which will have to be the

products of higher institutions. And when, in the future a greater number of persons complete secondary school, the pressure for more postsecondary facilities will be further increased. The problem then will be to preserve a form of diversity among institutions and programs that will meet personal, social, and national manpower needs.

Obviously, there is no one answer to the question of the relative emphases to be put on primary and secondary versus higher education. Even in highly developed countries where education at the lower levels is already quite universal, its mounting costs constitute a financial burden which forces competition for funds with the postsecondary establishment. The increasing costs of all social services (including government) throughout the world means that education faces a financial crisis everywhere. Perhaps as Cerych (1972) has said, the problem is more political than technical in nature, so that the proportion of the GNP allocated to education could still be increased if society insists that it should be. Even Cerych admits, however, that in Europe, where the increase in expenditures for higher education has mounted annually by 10 to 15 percent, this trend cannot continue indefinitely.

It seems clear that the question of increasing opportunity at the postsecondary level demands national policy decisions and that these must be understood as inescapably subject to the broader political forces in each country. It would be an error to assume that the pressures for this educational development are always external, in the sense that they stem from the general public. They may be political; the original push for the Open University both in England and Thailand, for example, had strong political overtones. The driving force may also be internal; there is some evidence that certain colleges and universities in the United States have suddenly become committed to external study programs because they believe such programs will both help maintain enrollment and be less costly to maintain. In fact, one of the fears about the nontraditional higher education movement in the United States is that some institutions or

systems of higher education are succumbing to it for the wrong reasons.

The Problem of Accommodation

To whatever extent national policy acknowledges the pressures for postsecondary education and permits its support, a host of new questions must be faced. Should the system be diversified? What kind of students—and their needs—should be met first? How will new institutions co-exist with older, more traditional ones? Although these questions too are in the province of national policy and planning, they are of a different order than those discussed in the preceding section, and may be discussed separately.

Let us examine, for example, the question of whether and how postsecondary education should be diversified. Until recently, except in the United States and to a lesser extent in Great Britain, the postsecondary system has been perceived as university education, accompanied in some instances by a sprinkling of technical colleges or institutes. In many countries universities have been highly selective and have offered only a limited number of programs. As more students with varying abilities and backgrounds press for the opportunity to continue their education, and as new manpower needs arise, demand for some modification of the system becomes more insistent. Usually, new pressures have been met by establishing new types of institutions to serve the new clientele and their special needs. The several types of two-year colleges in Canada, the polytechnics in England, the *Visa Skola* in Yugoslavia, the Colleges of Advanced Education in Australia, the technical institutes in both Singapore and New Zealand, the IUTs in France, and the regional colleges in Norway constitute only a few examples of efforts toward that end.

Existing institutions have not, of course, failed to change, for indeed some have added programs and, as reported earlier, initiated

short-cycle programs within their own structures. More often than not, these new short-cycle institutions are of the two-year college type and are either specialized or comprehensive in character. They should not, however, be equated with the American community college model. With certain exceptions, those established in other countries are more specialized and less well integrated into the total system of postsecondary education. The community colleges in the United States have almost completely open-door admissions policies, while the short-cycle institutions abroad are often more selective than the universities. Many enthusiasts of the community college idea in the United States have proclaimed its potential for other countries. However, after studying developments in postsecondary education around the world and discussing the matter with a number of educational leaders, I am convinced that the American community college model is not likely to be widely exported *in toto*. It is seriously to be doubted, in fact, that any institution, no matter how well it may serve its own culture, can be completely assimilated into a foreign situation. While certain characteristics of an intermediate institution such as the community college may indeed meet similar needs elsewhere, we must not assume that an entire model will be applicable to another institution. Over-generalization is especially hazardous, as it tends to obscure how unique national and cultural needs are being met with variations on the common international theme.

Whenever new institutions are created to promote diversity, two problems almost inevitably emerge. One is the complex of assumptions about prestige which relegates institutions other than universities to inferior status. The other is that institutions submit to the pecking order tendency and over time try to emulate those they perceive as being higher in the order.

The differing public perceptions of non-university and university education have led the OECD to distinguish "noble" and "less noble" components of higher education. Such differing statuses may even manifest themselves within a given institution. In Europe,

this problem especially afflicts "short-cycle education," presumably because the break with tradition has been so recent. It seems reasonable to assume that the more recently non-university education has been initiated, the greater the problem will be, since any new concept requires an interval of time to establish its credibility. The community college in the United States is a prime example of an institution that went through a long period of questioned viability before it won recognition as an integral part of the American system, even though many parents and students still regard it as a second choice. Occupational and technical education programs in the United States offer a good example of the kind of status distinction that has attached to short-cycle programs in Europe. Despite the recognized national need for technicians and related workers, the programs which prepare them have long been regarded by many people as having little prestige. In the community college, where the distinction between technical and academic programs has been felt most acutely, there are now signs that with changes in national attitudes and federal policy about occupational education, the problem of prestige has eased.

The problem of differential prestige and its affect on the ability of countries to provide diversity cannot be conjured away by asserting that time itself may solve the problem. The difficulty has to be faced realistically either by reform in the university sector, which is difficult at best, or by establishing a binary system and making a special effort to educate the public to accept the purposes and opportunities offered by the new and often very different types of institutions. A third alternative is to expand upon Quebec's innovative step of moving all postsecondary students through the CEGEPs. Such a move by itself did not, however, change the attitude that preparing for work is "less noble" than preparing for the university. Possibly the problem will never be overcome entirely. After all, differences in prestige manifest themselves in universities as they do throughout society. Furthermore, as Clark (1971) stated in his summary of an OECD meeting on short-cycle higher education

held in Grenoble, France, in November 1971:

... the new institutions do not need to chase the rainbow of full equality of status with the universities. The latter have taken some time in history to develop their aura, and even moving at a faster rate the new institutions will need considerable time to develop their own full radiance. What they need in the short run is a level of self-esteem and public legitimacy that allows them to get on with their specific work. In most countries, this will prove possible. . . . The non-universities will fail us if they evolve only as carbon copies of the past or as institutions that zig and zag with the opportunism of the moment. A firm self-concept is essential to their promising new role in society.

The most important consideration is that diversity be afforded and that as much as possible be done to dignify all segments of the postsecondary system.

The other problem is that once established, institutions tend to evolve into something different from their original purpose and nature. Examples of this include the colleges of advanced education in Australia, which are fast taking on the aspects of universities, and the older colleges of advanced technology in Britain, which have now become universities. Examples closer to home are the evolution of many state colleges in the United States into universities, either in name or in fact, and certain instances in which community colleges have become four-year institutions. To repeat: The irony of this upward institutional mobility is that it often leaves behind a vacuum which the institutions were originally created to fill. Thus, as the Australian colleges of advanced education become increasingly involved in higher diploma and degree programs, the training of mid-level technicians tends to be neglected. It then becomes necessary for other institutions to fill the void. When the colleges of advanced technology in Britain became universities, a system of polytechnics was expanded to render many services originally conceived as the function of the CATs. Many people in the United States have

been concerned about the elevation of state colleges to university status, fearing that faculty preoccupation with advanced graduate programs (which are now decreasing in national importance) would weaken their services to undergraduates. In several instances in which community colleges were converted into four-year institutions, the original community college functions have eventually been neglected or abandoned.

Even within the two-year college movement now prominent in the United States, Canada, and elsewhere, there is still the potential danger that the "more noble" academic or transfer programs will impinge on the occupational training programs. Some students of higher education in the United States have contended that the comprehensive community college idea is not viable for just that reason, and have suggested that separate technical colleges be established to ensure adequate career education. However, except in the case of the CAATs in Ontario, the two-year colleges have tended to be comprehensive. And with mid-level manpower needs and career education receiving increasing emphasis in nearly every country, including the United States, the test of whether diversity can be maintained in the same institution is near at hand.

The need for reshaping attitudes is also generated by the growing trend to encourage recurrent education and accommodate it to people so that they can pursue further education at a time in life when it is most profitable for them to do so. Possibilities for people to attend college intermittently are naturally enhanced by open universities and external degree, by continuing education with a variety of programs, and by the willingness of most institutions to accommodate older students. But more than a mere pronouncement about the merits of recurrent education will be required to make this concept work. Older individuals with family responsibilities will not find it easy to return to school at intervals without such aids as easy access (usually at the local level), institutional encouragement, and perhaps financial assistance. For this kind of access to become a more widespread reality, employers,

colleges and universities, and governmental agencies, including legislative bodies and statewide planning agencies will have to develop new attitudes.

While the new types of institutions in many countries, together with the emergence of new forms of access, decidedly enhance opportunity for further education, they raise still another and very fundamental question: opportunity for what? Is it simply a "right to try," with the understanding that if the education thus made available proves not to be appropriate for the new clientele attracted to it, they will discontinue their participation voluntarily? Or will the change come involuntarily? Are roles in society often outmoded even before the education for them is completed? Or does education perpetuate a kind of blind faith in "more education"—a faith that may be partially to blame for the questions currently being raised about the value of college, particularly as a credentialing device?

These questions plague the higher education community in the United States and have been thoroughly discussed by both Cross (1971) and Willingham (1970). I am convinced that such questions will become equally relevant to other countries as their educational systems expand. While solutions are naturally not easy, the problems cannot be set aside as mere speculative considerations not quite germane to policymaking. If a nation expands educational opportunity without considering the desired outcomes, such a move will surely lead to frustration.

Planning and Coordinating the System

The problems of planning and coordinating higher education in the United States, particularly at the state level, have long been recognized and researched by numerous authorities, including Berdahl (1971), Glenny (1959), Glenny et al. (1971), and Palola et al. (1970). The move toward mass postsecondary education, effected in part by a diversity of institutions keenly competing for

educational programs and scarce resources, has greatly increased the mechanisms for coordination at the state level and has moved the country in the direction of centralized systems of higher education. In many instances this trend has led to tension between state agencies and local institutions and to questions concerning appropriate institutional autonomy. With new state responsibilities for planning required by the Higher Education Bill of 1972, the role of the state will be increased.

As other countries move toward mass higher education, they inevitably face many of the planning and coordinating problems already encountered in the United States. Naturally, the more centralized the governmental system in a given country, the greater the possibility for national planning. One gains the impression, however, that even in the more centralized systems there is less effective planning and certainly less coordination of postsecondary education than is needed. Each of the several Asian and South Pacific countries I visited in 1971 appeared to be struggling with the problem. One common practice is to create a broad commission or some other type of agency to study the country's postsecondary needs and to make recommendations for the future—a practice all too well known in the United States. Here two problems were observed: the tendency (though not a universal one) for the study group to take an inordinately long time to complete its work, and the relatively small influence the report seemed to have on actual practice.

If planning and coordination are to be successful, they must be effected within each of the segments of postsecondary education, as well as among the segments of the system. It is in the latter phase—overall coordination—that one observes a deficiency in many Asian and Pacific countries. There the university system pursues an independent course, while the other segments, which are most likely to be under separate agencies in the Ministry of Education, pursue their separate courses. In Australia, for example, there is little coordination between the universities, the CAEs, and the technical

colleges at either the state or Commonwealth levels. To be sure, tertiary education in Australia has advanced rapidly in the last decade, but the problems now being encountered would seem to demand a high order of national and state coordination, especially between the CAEs and the universities. There are indeed coordinating agencies for each of these two segments at both state and national levels, and in two states there is also provision for an overall agency, but with the possible exception of Western Australia, the segments apparently tend to go their own way, and are restricted only by the Commonwealth funding, which is conditioned on matching monies provided by the states. Most critical with respect to planning in Australia, however, is an evident lack of overall concern about the direction of tertiary education, including the role of the technical colleges, further educational activities, and the proposed sixth form colleges.

In several countries, including Britain and Australia, there is a prevailing attitude that coordination of nationally supported institutions can be effected through the University Grants Committee or similar agencies responsible for allocating funds. Obviously, these agencies perform an important coordinating function through their funding operations, but most of them fall short of effecting continuous reviews of institutional purposes and programs with respect both to content and adequacy in meeting the nation's educational needs. Moreover, they have no control over the institutions whose funding comes from other sources or through other agencies.

Thailand is presently developing a new plan for coordinating and managing its ten universities. The University Development Commission, which was established three years ago with foundation assistance, has had as one of its concerns the subject of coordination. Its recommendations call for two types of agencies—one similar to a University Grants Committee for financing and long-range planning, the other a Council of Rectors for broad policies on personnel and administration. The recommendations are now being considered by the Thai government.

The status of planning and coordination in the more highly developed European countries is naturally different from that in certain of the developing Asian countries. Yet even more developed systems suffer from a lack of agencies concerned with all postsecondary education and with the appropriate diversification of opportunity and relationships among institutions. Commenting on planning for the British universities as well as for the non-university sector, McConnell and Berdahl (1971) contend that there is an overwhelming need for greater *planned* differentiation in the university system, and question whether the University Grants Committee tends to encourage conformity more than distinctiveness. They also charge that the Department of Education and Science, the agency responsible for non-university education, has never issued a reasonably explicit, comprehensive policy for the development of the "public sector." With the emergence of new institutions designed to aid Britain in its shift toward mass higher education, the need for overall planning mechanisms is naturally accentuated. It cannot be overemphasized that all countries require such planning mechanisms if they are to successfully implement the new demands on their system.

Assessing New Forms and Delivery Systems

The many types of possible institutions, the new approaches to teaching and learning through the use of electronic media and independent study, and the new patterns of admissions and teaching locales are all relatively untried. Since they must be judged in terms of their effectiveness in meeting national and personal needs, it is incumbent upon those responsible for their initiation and maintenance to institute means for evaluating them. In many respects this should be the task of the planning and coordinating agencies, but these do not always exist, and those in operation do not always supply sufficient scope. Moreover, since such agencies are

not noted for their ingenuity in research and evaluation, complete reliance on them is not in order. Some self-evaluation should be expected from the institutions themselves, but in many instances the assessment may have to fall on specially created agencies and commissions funded by the various governments. Regardless of who does it, however, it seems essential that information be assembled on such matters.

What is the nature of the student body served by the new institutions and by the outreach programs of established institutions? Are differential admissions standards applied in a way that diversity of opportunity is ensured? Do the programs offered actually provide diversity? What are the outputs of the various forms or efforts—do students complete programs and do they find employment appropriate to their training? How does the existence of new educational opportunities affect the percentage of various age groups who continue their education? How effective are the new teaching devices (home study, electronic media, non-campus educational experiences, etc.) in both cognitive and affective learning? How do they compare in cost with conventional methods? These are only a few of the questions that should be considered, but at least they convey some impression of the nature and scope of the research task that must be assumed.

Financial Support

No list of universal issues could possibly omit what may be the most difficult problem of all to solve: the cost of educating more and more people at upper levels. This issue, of course, must be understood as a chief preoccupation of the national policy debates discussed earlier, since nations, like individuals, have to determine their priorities. It is obviously beyond the scope of this monograph to attempt to analyze the problems related to financing higher education throughout the world. The question of finances has been

touched on in connection with reporting on the extent to which most countries are experiencing increasing pressures for educational opportunity, and how they have responded to the pressures. That some responses have been made and in various ways is evidence that some funds have been found, but this does not suggest that the problem is solved. It may be that certain innovative measures for meeting the demand are less costly than conventional means. For example, open university types of operations and other forms of nontraditional study hold some promise of reducing capital expenditures and costs of operation. Thus, the survival principle of learning how to do more with less may guide each country as it grapples with the problem.

SOME GENERAL OBSERVATIONS

The issues discussed in this chapter reflect the growing pains associated with the transition from elitism to egalitarianism in postsecondary education. Regardless of the country under review, or of how far along the continuum it has come, the issues are much the same: determination of policy, accommodation of larger and increasingly diverse student bodies, planning and coordination, evaluation and assessment, and financial support. Despite the experience gained as a pioneer in the move toward mass higher education, the United States is still confronted with the same problems and issues.

In some respects the pressures to expand postsecondary education are coming at a time when the problems of extending opportunity are becoming increasingly difficult. For one thing, during the very period when more people are demanding greater educational opportunity, some policymakers are developing grave doubts about the traditional values of college. Also, in the last decade, legislative bodies, as well as many individuals in most countries, have reacted negatively toward student activism in higher

institutions. These shifts, raising doubts as they have about some of the sacred notions concerning higher education for more people, have not only increased the intensity of the financial crisis, but have made it difficult for most countries to formulate policies with respect to further education. The demands seem likely to continue, but whether they will continue to gain quickly sympathetic hearings is somewhat problematic.

Now that many countries are engaged in the same process of transition and are seeking ways to accommodate more students, the United States can surely learn from others. We should, for example, profit by knowing more about the British system of part-time education. We can at least comfort ourselves with those instances of upward institutional mobility in other countries which, like so many cases in our own country, have left behind a vacuum to be filled. In this day of emphasis on career education, we can observe good examples of technical education in Singapore, Canada, and many of the European countries. Also, we can continue to take some lessons from the Open Universities and the external study programs in countries such as Britain, Australia, New Zealand and Japan. In them we find practices to emulate as well as to avoid. In all of them we will identify problems to be solved as we embark on what to us are nontraditional forms of study.

Other countries may learn something from us. By examining our system they will learn something about the difficulties in maintaining diversity, but they may nevertheless possibly profit from the means we have taken to plan and coordinate higher education. They may be impressed by our current efforts to make the formal system less rigid through innovations that improve access and accent the individual in the learning process. Some of the countries may be interested in our attempts to adjust graduate and professional education more specifically to the manpower needs of the nation. Undoubtedly, many countries might learn something from the United States concerning the complex problem of admissions criteria and of our move toward flexibility in this area. Although other

countries may be unable to adopt our model of the community college system, they may yet see the merit of mid-level institutions and crystallize their own needs in the process of rejecting our specific practices.

Despite the problems and issues involved in accommodating the worldwide quest for educational opportunity beyond the secondary school, it seems unlikely that the pressures for such opportunity will abate.

Of one thing we can be certain: the future of postsecondary education will unfold in a variety of patterns, and these will be shaped by the unique convergence of social, political, and economic forces of each country, and also by the pressures of economics and culture that transcend national boundaries. This does not suggest that the ability of individual nations to plan, coordinate, and assess their educational structure is beyond their control. Instead, it reinforces the understanding that all this must be done within the framework of national and international developments that are conditioned by powerful social forces, one of which has become and undoubtedly will remain the desire on the part of man to better understand his world and thus find his rightful place in it.

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